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

**AMENDMENT NO. 5
TO
FORM S-1**
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933



PRESSURE BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

Massachusetts

(State or Other Jurisdiction of
Incorporation or Organization)

3826

(Primary Standard Industrial
Classification Code Number)

04-2652826

(I.R.S. Employer
Identification Number)

**14 Norfolk Avenue
South Easton, Massachusetts 02375
(508) 230-1828**

(Address, including zip code, and telephone number including
area code, of Registrant's principal executive offices)

**Richard T. Schumacher
President and Chief Executive Officer
Pressure BioSciences, Inc.
14 Norfolk Avenue
South Easton, Massachusetts 02375
(508) 230-1828**

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

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

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

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

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

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

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

Large-Accelerated Filer	<input type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-Accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input checked="" type="checkbox"/>
		Emerging Growth Company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. []

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price ⁽¹⁾	Amount of Registration Fee ⁽¹⁾
Common Stock, par value \$0.01 per share ^{(2) (3)}	\$ 14,375,000	\$ 1,666.06
Warrants to Purchase Common Stock ⁽⁴⁾	—	—
Representatives' Warrant to Purchase Common Stock ⁽⁴⁾	\$ N/A	\$ —
Shares of Common Stock issuable upon exercise of the Warrants ^{(2) (3) (5)}	\$ 8,984,375	\$ 1,041.29
Shares of Common Stock issuable upon exercise of Representatives' Warrant ^{(2) (6)}	\$ 781,250	\$ 90.55
Total	\$ 24,140,625	\$ 2,797.90⁽⁷⁾

(1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended (the “Securities Act”).

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

(3) Includes shares of common stock which may be issued upon exercise of a 45-day option granted to the underwriters to cover over-allotments, if any.

(4) A warrant to purchase one share of common stock will be issued for every two shares offered. The Warrants will cost \$0.01 per Warrant. The maximum number of the Warrants and Representative’s warrants and the shares of the Registrant’s common stock underlying the Warrants and Representative’s warrants are being simultaneously registered hereunder. Consistent with the response to Question 240.06 of the Securities Act Rules Compliance and Disclosure Interpretations, the registration fee with respect to the Warrants and Representative’s warrants has been allocated to the shares of the Registrant’s common stock underlying the Warrants and Representative’s warrants and those shares are included in the registration fee.

(5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act. The warrants are exercisable at a per share price of 125% of the common stock public offering price.

(6) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act. The warrants are exercisable at a per share exercise price equal to 125% of the public offering price excluding the over-allotment option. The proposed maximum aggregate offering price of the Representative’s warrants is \$781,250 which is equal to 125% of \$625,000 (5% of \$12,500,000).

(7) The registrant previously paid \$3,357.49.

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

as the Commission, acting pursuant to said section 8(a), may determine.



The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION

DATED AUGUST 9, 2017

2,777,778 Shares of Common Stock

Warrants to Purchase up to 1,388,889 Shares of Common Stock



Pressure BioSciences, Inc.

We are offering an aggregate of 2,777,778 shares of our common stock, \$0.01 par value per share, and warrants to purchase 1,388,889 shares of our common stock. We expect the public offering price will be between \$4.0625 and \$4.9375 per share. The warrants will have an exercise price per share equal to 125% of the public offering price and expire five years from the date of issuance. A warrant to purchase one share of common stock will accompany every two shares of common stock purchased. The shares and warrants will trade separately.

Our common stock is presently quoted on the OTCQB under the symbol "PBI". We applied to have our common stock and warrants listed on The NASDAQ Capital Market under the symbols "PBI" and "PBIOW," respectively. No assurance can be given that our application will be approved. On August 4, 2017 the last reported sale price for our common stock on the OTCQB was \$4.80 per share. There is no established public trading market for the warrants. No assurance can be given that a trading market will develop for the warrants.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 19 of this prospectus for a discussion of information that should be considered in connection with an investment in our securities.

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

	<u>Per Share</u>	<u>Per Warrant</u>	<u>Total</u>
Public offering price	\$	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$	\$
Proceeds to us, before expenses	\$	\$	\$

(1) We refer you to "Underwriting" beginning on page 80 of this prospectus for additional information regarding total underwriting compensation.

We have granted a 45-day option to the representative of the underwriters to purchase up to 416,667 additional shares of our common stock at a public offering price of \$ ___ per share and/or warrants to purchase 208,333 shares of our common stock at a public offering price of \$0.01 per warrant, solely to cover over-allotments, if any.

The underwriters expect to deliver our shares and warrants to purchasers in the offering on or about , 2017.

Joseph Gunnar & Co.

The date of this prospectus is , 2017.

PBI INSTRUMENT PORTFOLIO

Barocyler™ 2320EXT



Up to 45,000 psi
Award-winning, next-generation,
multi-functional sample prep
instrument

HUB440
HUB880



Up to 58,000 & 100,000 psi
All-purpose pressure
generators

Barozyme HT48



Up to 20,000 psi
High throughput analyses



XStreamPCT
Up to 58,000 psi
On-line sample processors

2016-2017

RF 1700



Up to 25,000 psi
Novel Pressure Pump

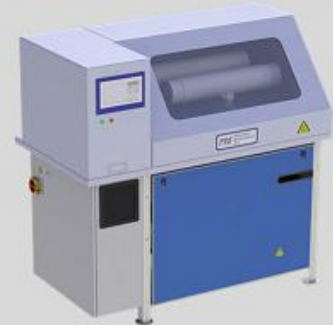
2H2017 - 2018



EXPLORER/DISCOVERY PLATFORM

2019-2020

Ultra-Shear Technology (UST)



Pilot-scale UST Homogenizers

PBI Pressure
BioSciences
Inc.

TABLE OF CONTENTS

Prospectus Summary	5
Risk Factors	19
Use of Proceeds	33
Market for Our Common Stock and Related Stockholder Matters	34
Capitalization	35
Dilution	37
Cautionary Note Regarding Forward-Looking Statements	38
Management’s Discussion and Analysis of Financial Condition and Results of Operations	40
Business	51
Directors and Executive Officers	65
Executive Compensation	70
Security Ownership of Certain Beneficial Owners and Management	74
Certain Relationships and Related Party Transactions	76
Description of Capital Stock	77
Shares Eligible for Future Sale	78
Underwriting	80
Legal Matters	87
Experts	87
Where You Can Find More Information	87
Index to Consolidated Financial Statements	F-1

You should rely only on information contained in this prospectus. We have not, and the underwriters have not, authorized anyone to provide you with additional information or information different from that contained in this prospectus. We are not making an offer of these securities in any state or other jurisdiction where the offer is not permitted. The information in this prospectus may only be accurate as of the date on the front of this prospectus regardless of time of delivery of this prospectus or any sale of our securities.

No person is authorized in connection with this prospectus to give any information or to make any representations about us, the common stock hereby or any matter discussed in this prospectus, other than the information and representations contained in this prospectus. If any other information or representation is given or made, such information or representation may not be relied upon as having been authorized by us. This prospectus does not constitute an offer to sell, or a solicitation of an offer to buy our common stock in any circumstance under which the offer or solicitation is unlawful. Neither the delivery of this prospectus nor any distribution of our common stock in accordance with this prospectus shall, under any circumstances, imply that there has been no change in our affairs since the date of this prospectus.

Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. You are required to inform yourself about, and to observe any restrictions relating to, this offering and the distribution of this prospectus.

We have registered certain of our trademarks with the United States Patent and Trademark Office, including Barocycler® and PULSE®. XSTREAMPCT™ is registered in Europe and published in the USA. We also use certain trademarks, trade names, and logos that have not been registered including ProteoSolve™, ProteoSolveLRS™, the Power of PCT™, the PCT Shredder™, HUB440™, HUB880™, MicroPestle™, PCT-HD™, Barozyme™, BaroFlex™ Strip, and Discovery Starts with Sample Preparation™.

PROSPECTUS SUMMARY

This summary highlights selected information appearing elsewhere in this prospectus. While this summary highlights what we consider to be important information about us, you should carefully read this entire prospectus before investing in our common stock and warrants, especially the risks and other information we discuss under the headings “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operation” and our consolidated financial statements and related notes beginning on page F-1. Our fiscal year end is December 31 and our fiscal years ended December 31, 2015, 2016, and 2017 are sometimes referred to herein as fiscal years 2015, 2016 and 2017, respectively. Some of the statements made in this prospectus discuss future events and developments, including our future strategy and our ability to generate revenue, income and cash flow. These forward-looking statements involve risks and uncertainties which could cause actual results to differ materially from those contemplated in these forward-looking statements. See “Cautionary Note Regarding Forward-Looking Statements”. Unless otherwise indicated or the context requires otherwise, the words “we,” “us,” “our”, the “Company” or “our Company” and “Pressure Biosciences” refer to Pressure Sciences, Inc., a Massachusetts corporation.

This prospectus assumes the over-allotment option of the underwriters has not been exercised, unless otherwise indicated. All share and per share information relating to our common stock in this prospectus has been adjusted to reflect a 1-for-30 reverse stock split of our common stock that took effect on June 5, 2017.

Overview

We are focused on solving the challenging problems inherent in biological sample preparation, a crucial laboratory step performed by scientists worldwide working in biological life sciences research. Sample preparation is a term that refers to a wide range of activities that precede most forms of scientific analysis. Sample preparation is often complex, time-consuming and, in our belief, one of the most error-prone steps of scientific research. It is a widely-used laboratory undertaking – the requirements of which drive what we believe is a large and growing worldwide market. We have developed and patented a novel, enabling technology platform that can control the sample preparation process. It is based on harnessing the unique properties of high hydrostatic pressure. This process, which we refer to as Pressure Cycling Technology, or PCT, uses alternating cycles of hydrostatic pressure between ambient and ultra-high levels i.e., 20,000 psi or greater to safely, conveniently and reproducibly control the actions of molecules in biological samples, such as cells and tissues from human, animal, plant and microbial sources.

PCT is an enabling platform technology based on a physical process that had not previously been used to control bio-molecular interactions. PCT uses internally developed instrumentation that is capable of cycling pressure between ambient and ultra-high levels at controlled temperatures and specific time intervals, to rapidly and repeatedly control the interactions of bio-molecules, such as proteins, DNA, RNA, lipids and small molecules. Our laboratory instrument family, the Barocycler®, and our internally developed consumables product line, which include our unique MicroTubes, MicroCaps, MicroPestles, BaroFlex and PULSE® (Pressure Used to Lyse Samples for Extraction) Tubes, and application specific kits (containing consumable products and reagents), together make up our PCT Sample Preparation System (“PCT SPS”).

In 2015, together with an investment bank, we formed a subsidiary called Pressure BioSciences Europe (“PBI Europe”) in Poland. We have 49% ownership interest with the investment bank retaining 51%. Throughout 2016, PBI Europe did not have any operating activities in 2016 and we cannot reasonably predict when operations will commence. Because we don’t have control of the subsidiary, we did not consolidate them in our financial statements.

Patents

PBI has 14 United States granted patents and one foreign granted patent (Japan: 5587770, EXTRACTION AND PARTITIONING OF MOLECULES) covering multiple applications of PCT in the life sciences field. PBI also has 19 pending patents in the USA, Canada, Europe, Australia, China, Japan, and Taiwan. PCT employs a unique approach that we believe has the potential for broad use in a number of established and emerging life sciences areas, which include, but are not limited to:

- biological sample preparation – including but not limited to sample extraction, homogenization, and digestion - in such study areas as genomic, proteomic, lipidomic, metabolomic and small molecule;
- pathogen inactivation;
- protein purification;
- control of chemical reactions, particularly enzymatic; and
- immunodiagnostics.

We are also the exclusive distributor, throughout the Americas, for Constant Systems, Ltd.,'s ("CS") cell disruption equipment, parts, and consumables. CS, a British company located several hours northwest of London, England, has been providing niche biomedical equipment, related consumable products, and services to a global client base since 1989. CS designs, develops, and manufactures high pressure cell disruption equipment required by life sciences laboratories worldwide, particularly disruption systems for the extraction of proteins. The CS equipment provides a constant and controlled cell disruptive environment, giving the user constant and reproducible results whatever the application. CS has over 900 units installed in over 40 countries worldwide. The CS cell disruption equipment extracts cellular components, such as protein from yeast, bacteria, mammalian cells, and other sample types.

The CS pressure-based cell disruption equipment and our PCT-based instrumentation complement each other in several important ways. While both the CS and our technologies are based on high pressure, each product line has fundamental scientific capabilities that the other does not offer. Our PCT Platform uses certain patented pressure mechanisms to achieve small-scale, molecular level effects. CS's technology uses different, proprietary pressure mechanisms for larger-scale, non-molecular level processing. In a number of routine laboratory applications, such as protein extraction, both effects can be critical to success. Therefore, for protein extraction and a number of other important scientific applications, we believe laboratories will benefit by using the CS and our products, either separately or together.

Primary Fields of Use and Applications for PCT

Sample preparation is widely regarded as a significant impediment to research and discovery and sample extraction is generally regarded as one of the key parts of sample preparation. The process of preparing samples for genomic, proteomic, lipidomic, and small molecule studies includes a crucial step called sample extraction or sample disruption. This is the process of extracting biomolecules such as nucleic acid i.e., DNA and/or RNA, as well as proteins, lipids, or small molecules from the plant or animal cells and tissues that are being studied. Our current commercialization efforts are based upon our belief that pressure cycling technology provides a superior solution for sample extraction when compared to other available technologies or procedures and thus might significantly improve the quality of sample preparation, and thus the quality of the test result.

Within the broad field of biological sample preparation, in particular sample extraction, we focus the majority of our PCT and constant pressure ("CP") product development efforts in three specific areas: biomarker discovery (primarily through mass spectrometric analysis), forensics and histology. We believe that our existing PCT and CP-based instrumentation and related consumable products fill an important and growing need in the sample preparation market for the safe, rapid, versatile, reproducible and quality extraction of nucleic acids, proteins, lipids, and small molecules from a wide variety of plant, animal, and microbiological cells and tissues.

Biomarker Discovery - Mass Spectrometry

A biomarker is any substance (e.g., protein, DNA) that can be used as an indicator of the presence or absence of a particular disease-state or condition, and/or to measure the progression and effects of therapy. Biomarkers can help in the diagnosis, prognosis, therapy, prevention, surveillance, control, and cure of diseases and medical conditions.

A mass spectrometer is a laboratory instrument used in the analysis of biological samples, often focused on proteins, in life sciences research. It is frequently used to help discover biomarkers. According to a recently published market report by Transparency Market Research, the global spectrometry market was worth \$10.2 billion in 2011 and is expected to reach \$15.2 billion in 2017, growing at a compound annual growth rate of 6.9% from 2011 to 2017. In the overall global market, the North American market is expected to maintain its lead position in terms of revenue until 2017 and is expected to have approximately 36.2% of the market revenue share in 2017, followed next by Europe. We believe PCT and CP-based products offer significant advantages in speed and quality compared with current techniques used in the preparation of samples for mass spectrometry analysis.

Forensics

The detection of DNA has become a part of the analysis of forensic samples by laboratories and criminal justice agencies worldwide in their efforts to identify the perpetrators of violent crimes and missing persons. Scientists from the University of North Texas (UNT) and Florida International University (FIU) have published a paper regarding DNA yield from forensic samples (e.g., bone and hair) when using the PCT platform in the sample preparation process. A copy of the paper may be accessed through our website.

Pressure cycling technology (PCT) reduces effects of inhibitors of the PCR

Pamela L. Marshall & Jonathan L. King & Nathan P. Lawrence & Alexander Lazarev & Vera S. Gross & Bruce Budowle

We also believe that there are many completed rape kits that remain untested for reasons such as cost, time and quality of results. We further believe that the ability to differentially extract DNA from sperm and not epithelial cells could reduce the cost of such testing, while increasing the quality, safety and speed of the testing process.

We believe that PCT may be capable of differentially extracting DNA from sperm cells and female epithelial cells captured in swabs collected from rape victims and subsequently stored in rape kits. Data from the laboratory of Dr. Bruce McCord (FIU) was published in a paper that may be accessed through our website.

Histology

The most commonly used technique worldwide for the preservation of cancer and other tissues for subsequent pathology evaluation is formalin-fixation followed by paraffin-embedding, or *FFPE*. We believe that the quality and analysis of FFPE tissues is highly problematic, and that PCT offers significant advantages over current processing methods, including standardization, speed, biomolecule recovery, and safety.

Company Products

We believe our PCT and CP products allow researchers to improve scientific research studies in the life sciences field. Our products are developed with the expectation of meeting or exceeding the needs of research scientists while enhancing the safety, speed and quality that is available to them with existing sample preparation methods.

Barocyler® Instrumentation

Our Barocyler® product line consists of laboratory instrumentation that subjects a sample to cycles of pressure from ambient to ultra-high levels (20,000 psi or greater) and then back to ambient, in a precisely controlled manner.

Our instruments (the Barocyler® 2320EXTREME (the “2320EXT”), the Barozyme-HT48, the Barocyler® NEP3229, the HUB440 and the HUB880) use cycles of high, hydrostatic pressure to quickly and efficiently break up the cellular structures of a specimen to release proteins, nucleic acids, lipids and small molecules from the specimen into our consumable processing tubes, referred to as our PULSE® Tubes and MicroTubes. Our instruments have temperature control options (on-board heating or chilling and heating via external circulating water-bath), automatic fill and dispensing valves, and an integrated micro-processor keypad or a laptop computer. The microprocessor or laptop computer are capable of saving specific PCT protocols, so the researcher can achieve maximum reproducibility for the preparation of nucleic acids, proteins, lipids, or small molecules from various biological samples. Our Barocyler® instruments and our consumable products make up our PCT Sample Preparation System.

Barocyler® 2320EXT - The Barocyler® 2320EXT weighs approximately 80lbs, has a maximum pressure of 45,000 psi, and can process either up to 16 MicroTubes simultaneously or 1 PULSE® Tube. The working temperature range is 4 – 95°C and is controlled via an on-board electric heating jacket or external circulating water bath. All tests are entered and recorded on a touch screen interface. Information from each test runs (pressure profile, cycle number, and temperature) is recorded and can be stored on the instrument, on a USB drive, or networked into the user’s lab. Pressure profiles can be manipulated in a number of ways, including static high pressure holds and pressure ramp programs. The Barocyler® 2320EXT is pneumatic, and requires an input air source of 110 psi to reach and cycle at high pressure.

The Barocyler® 2320EXT was developed to support the PCT-HD/PCT-SWATH application. PCT-HD enables faster, less cumbersome and higher quality processing of biopsy tissues. With homogenization, extraction, and digestion of proteins occurring in a single PCT MicroTube under high pressure. This protocol can yield analytical results in under 4 hours from the start of processing tissues. PCT-HD was developed by our scientists and engineers in collaboration with Professor Ruedi Aebersold and Dr. Tiannan Guo of the Institute of Molecular Systems Biology, ETH Zurich, and the University of Zurich, both in Zurich, Switzerland. Drs. Aebersold and Guo combined PCT-HD with SCIEX’s SWATH-Mass Spectrometry – calling the resulting method “*PCT-SWATH*”.

Barocyler® NEP3229 – The Barocyler® NEP3229 contains two units – a user interface and a power source – comprised primarily of a 1.5 horsepower motor and pump assembly (hydraulic). Combined, the two components of the NEP3229 weigh approximately 350 pounds. The Barocyler® NEP3229 is capable of processing up to three samples simultaneously using our specially designed, single-use PULSE® Tubes and up to 48 samples simultaneously using our specially-designed MicroTubes.

Barozyme HT48 - The Barozyme HT48 is a high throughput, bench-top instrument designed for accelerated enzymatic digestion of proteins at high pressure. A typical protein digestion time using the enzyme trypsin (a common yet important laboratory procedure) can be reduced from often requiring an overnight incubation to get to completion to under one hour when the digestion procedure is carried out under PCT. The Barozyme HT48 uses an air-pressure-to-liquid-pressure proprietary intensifier system, with a pressure amplification ratio of 160:1, to reach an output pressure of 20,000 psi. The Barozyme HT48 is capable of processing up to 48 samples at a time in six single-use BaroFlex 8-well Strips in the Barozyme Sample Carrier.

Barocyler® HUB440 –We believe the Barocyler® HUB440 is the first portable, ready to use, “plug-and-play” high pressure generator for the laboratory bench. The Barocyler® HUB440 is capable of creating and controlling hydrostatic pressure from 500 psi to 58,000 psi. It is computer controlled and runs on software that was specially-written by us in LabVIEW (software from National Instruments Corporation). We own the rights and have a license to use the specialty LabVIEW software. We believe that over the coming years, the Barocyler® HUB440 may become the main instrument in our pressure-based instrument line.

Barocyler® HUB880 - The Barocyler® HUB880 is one of our new instruments; it is expected to be available for sale during the first six months of 2017. It is a compact, portable, bench-top, ultra-high pressure generator that uses an air pressure-to-liquid pressure intensifier allowing the user to generate fluid pressure as high as 90,000 psi with input air pressure of just 126 psi. The HUB880 can be operated through a simple front panel or controlled using an optional external Data Acquisition and Control Module for dynamic pressure control. We believe that the HUB880 will be well accepted by scientists that need to achieve super high pressure, such as those working in the food safety and vaccine industries.

The Shredder SG3 –The Shredder SG3 is a low shear mechanical homogenization system for use with tough, fibrous and other difficult-to-disrupt tissues and organisms. The Shredder SG3 System uses a variety of Shredder PULSE® Tubes to directly and rapidly grind a biological sample which, when combined with selected buffers, can provide effective extraction of proteins, DNA, RNA, lipids and small molecules from tissues and organisms. The Shredder SG3 is also used to isolate intact and functional mitochondria from tissues. The Shredder SG3 features a three position force setting lever, which enables the operator to select and apply reproducible force to the sample during the shredding process and eliminates the need for the operator to exert force for long periods when processing one or more samples.

Barocyler® Consumable Products

PCT MicroTubes – PCT MicroTubes are made from a unique fluoropolymer, fluorinated ethylene propylene (FEP). FEP is highly inert and retains its integrity within an extremely wide temperature range (-200°C to +100°C). MicroTubes hold a maximum total volume of 150 microliters. PCT MicroTubes must be used with either PCT-MicroCaps or PCT-MicroPestles.

PCT-MicroCaps – PCT MicroCaps are made from polytetrafluoroethylene (PTFE). The PCT MicroCaps are available in three sizes to accommodate total sample volume: 50, 100 and 150uL. 50uL MicroCaps are used with samples ≤50uL, 100uL MicroCaps are used with samples between 50-100uL, and 150uL MicroCaps are used with samples between 100-150uL.

PCT-Micro-Pestle (“μPestles”)- PCT μPestles are made from Polytetrafluoroethylene (PTFE), a synthetic fluoropolymer of tetrafluoroethylene, also known as Teflon (by DuPont Co). PTFE is practically inert; the only chemicals known to affect it are certain alkali metals and most highly-reactive fluorinating agents. PCT μPestles, in conjunction with PCT MicroTubes, are designed to enhance the extraction of protein, DNA, RNA and small molecules from minute amounts (0.5 – 3.0 mg) of solid tissue in extraction reagent volumes as low as 20-30 μL. PCT MicroTubes and PCT μPestles use Pressure Cycling Technology (PCT) to effectively disrupt soft tissues and lyse their cells. As a result, the tissue sample trapped between the MicroTube end and the μPestles tip is crushed on every pressure cycle. This mechanical action, combined with the extraction ability of the buffer under high pressure, results in highly effective tissue homogenization and extraction.

PCT μ Pestles and PCT MicroTubes, together with a PBI Barocycler®, comprise the PCT Micro-Pestle System, which provides a fast, safe, and efficient means of extraction from extremely small amounts of solid samples such as soft animal tissues or biopsies. The PCT μ Pestle System can be used in any PBI Barocycler®.

BaroFlex 8-well Processing Strips - BaroFlex 8-well Strips are used in the Barozyme HT48 (for pressure-enhanced enzymatic digestion at 20,000 psi). BaroFlex 8-well Strips are made of special high density polyethylene (HDPE) and hold up to 140 μ l when capped with the BaroFlex Cap Strips or Mats. BaroFlex 8-Cap Strips and BaroFlex 24-Cap Mats are made of silicone. These single-use caps are designed to seal BaroFlex 8-well Strips tightly and to prevent fluid exchange between the sample and the Barozyme chamber fluid during pressure cycling. The silicone caps are available as strips of 8, or mats of 24 caps.

We believe our development of these various consumable products has helped, and will continue to help, drive the adoption of PCT within the life sciences market.

Customers

Our customers include researchers at academic laboratories, government agencies, biotechnology companies, pharmaceutical companies and other life science institutions in the United States, Europe, and in Asia. Our goal is to continue aggressive market penetration in these target groups. We also believe that there is a significant opportunity to sell and/or lease additional Barocycler® instrumentation to additional laboratories at current customer institutions.

If we are successful in commercializing PCT in applications beyond our current focus area of genomic, proteomic, lipidomic, and small molecule sample preparation, and if we are successful in our attempts to attract additional capital, our potential customer base could expand to include hospitals, reference laboratories, pharmaceutical manufacturing plants and other sites involved in each specific application. If we are successful in forensics, our potential customers could be forensic laboratories, military and other government agencies. If we are successful in histology (extraction of biomolecules from FFPE tissues), our potential customers could be pharmaceutical companies, hospitals, and laboratories focused on drug discovery or correlation of disease states.

Growth Strategy

Our growth strategy includes:

- Expanding our United States salesforce.
- Aggressively promoting the PCT-HD System, which includes the Barocycler® 2320EXT, MicroTube System, and MicroPestles.
- Expanding our number of International Distributers.
- Actively promoting our other Barocycler® products, accessories, and consumables, including but not limited to, the Barozyme, the HUB440, and HUB880.
- Development of new applications for the Barocycler® 2320EXT, such as, but not limited to, clinical applications.
- Development of new high-pressure applications for industries outside of biotechnology, such as, but not limited to, food science.
- Development of new high-pressure instruments, devices, and consumables to meet the growing demand for pressure-based technology.

Competitive Advantages/Operational Strengths

Our platforms are based on our patented and proprietary Pressure Cycling Technology (PCT). We believe the PCT platform provides distinct and important competitive advantages over other sample preparation methods, as it:

- is proprietary to PBI
- has been shown to extract more classes of proteins from tissues and cells than many other current sample, preparation methods. We believe this claim is supported by several publications and presentations available on our website most notably by Dr. R. Aebersold, Professor at the Institute of Molecular Systems Biology, ETH-Zurich. Dr. Aebersold's publications include:
- can accelerate enzymatic digestion of proteins for analysis by mass spectrometry from overnight to under an hour. We believe this claim is supported by several experiments. For example, Dr. A. Ivanov published a paper available on our website.
- enables efficient sample prep workflows for processing minute amounts of tissue with excellent yields and reproducibility for researchers in the growing precision and translational medicine fields.

Our Risks and Challenges

An investment in our securities involves a high degree of risk including risks related to the following:

- We have received an opinion from our independent registered public accounting firm expressing substantial doubt regarding our ability to continue as a going concern.
- We have a history of operating losses, anticipate future losses and may never be profitable.
- We may be unable to obtain market acceptance of our pressure cycling technology products and services.
- The sales cycle of our pressure cycling technology products is lengthy. We have incurred and may continue to incur significant expenses and we may not generate any significant revenue related to those products.
- Our reliance on a single third party for all of our manufacturing, and certain of our engineering, and other related services could harm our business.
- Our instrumentation operates at high pressures and may therefore become subject to certain regulations in the European Community. Regulation of high pressure equipment may limit or hinder our development and sale of future instrumentation.
- We expect that we will be subject to regulation in the United States, such as the Food and Drug Administration (the “FDA”), and overseas, if and when we begin to invest more resources in the development and commercialization of PCT in applications outside of sample preparation for the research field.

Recent Developments

Conversion of Series D Preferred Stock

On June 8, 2017, the Company entered into a letter agreement with a private investor (the “BG Preferred Stock Letter Agreement”), whereby the private investor agreed to convert 75 shares of Series D Preferred Stock (the “BG Preferred Stock”) of the Company owned by him into common stock of the Company. Pursuant to the BG Preferred Stock Letter Agreement, the BG Preferred Stock will automatically convert upon consummation of this offering into 6,250 restricted shares of the Company’s common stock and warrants to purchase 9,945 shares of the Company’s common stock with an exercise price of \$8.40 substantially in the form of the warrants included in this offering except such warrants will be restricted securities and will not publicly trade on NASDAQ. As an inducement to enter into the BG Preferred Stock Letter Agreement, the private investor will receive 3,750 restricted shares of common stock upon the closing of the offering. The private investor has entered into a lock-up agreement prohibiting the sale or other transfer of all securities of the Company owned by him for a period of 90 days from the closing of the offering.

Conversion of Convertible Debentures

On June 16, 2017, the Company entered into letter agreements (together the “Debenture Holder Letter Agreements”), as amended, with 34 investors (each a “Debenture Holder” and together the “Debenture Holders”) holding convertible debentures (collectively the “Debentures”) and warrants to purchase common stock (the “Debenture Warrants”) whereby the Debenture Holders agreed to convert all monies due them under the Debentures into restricted shares of common stock (the “Debenture Conversion Shares”), all contingent upon the completion of this offering. As of March 31, 2017, the Debenture Holders were due the aggregate sum of \$1,587,706, including principal and interest. This sum, along with the additional interest due from April 1 through the date of the consummation of the offering, is referred to herein as the “Debenture Obligation”. Pursuant to the Debenture Holder Letter Agreements, the Debenture Obligation will automatically convert upon consummation of this offering into the Debenture Conversion Shares at a price equal to the lower of \$8.40 or the price per share paid by investors in this offering. The Debenture Holders will be issued amended Debenture Warrants such that the exercise price will be the same as the exercise price of the warrants being included in this offering and the Debenture Warrants will no longer have a “Subsequent Equity Sales” provision that lowers the exercise price of the Debenture Warrants upon any future dilutive issuance of shares. As a result of the foregoing, the Company will issue at least 352,824 Debenture Conversion Shares for principal and interest through March 31, 2017 upon the consummation of this Offering in consideration of the conversion of their Debenture Obligation assuming a conversion price of \$4.50, which is the mid-point of the estimated offering price range on the cover of this prospectus. Each person entering into the Debenture Holder Letter Agreements have entered into lock-up agreements prohibiting the sale or other transfer of any securities of the Company owned by such persons for a period of 3 months except for 5,262 shares of unrestricted common stock the Debenture Holders own as of the date of their letter agreements due to issuances by the Company of interest earned on the Debenture in the form of “payment in kind” shares of common stock.

On June 16, 2017, the Company entered into letter agreements (together the “Debenture and Fall 2016 Holder Letter Agreements”), with two (2) investors (each a “Debenture and Fall 2016 Holder” and collectively the “Debenture and Fall 2016 Holders”). The Debenture and Fall 2016 Holders invested in both the Company’s offering of the Debentures and Debenture Warrants as well as the Company’s offering of restricted common stock and common stock purchase warrants (the “Fall 2016 Warrants”). Pursuant to the Debenture and Fall 2016 Holder Letter Agreements, the Debenture and Fall 2016 Holders agreed to convert all monies due them under the Debentures into restricted shares of common stock (the “Debenture and Fall 2016 Conversion Shares”) contingent upon the completion of this offering. As of March 31, 2017, the Debenture and Fall 2016 Holders were due the aggregate sum of \$779,930, including principal and interest. This sum, along with the additional interest due from April 1 through the date of the consummation of the offering, is referred to herein as the “Debenture and Fall 2016 Obligation”. As an inducement to enter into the Debenture and Fall 2016 Holder Letter Agreements, the Debenture and Fall 2016 Holders will receive an aggregate of 17,334 shares of the Company’s common stock. Pursuant to the Debenture and Fall 2016 Holder Letter Agreements, the Debenture and Fall 2016 Obligation will automatically convert upon consummation of this offering into the Debenture and Fall 2016 Conversion Shares at a price equal to the lower of \$8.40 or the price per share paid by investors in this offering and their Debenture Warrants will be amended to reflect an exercise price equal to the lower of \$12.00 or the exercise price per share of the warrants sold in this offering. In addition, the Debenture Warrants will no longer have a “Subsequent Equity Sales” provision that lowers the exercise price of the Debenture Warrants upon any future dilutive issuance of shares. Additionally, the Fall 2016 Warrants shall be amended to reflect an exercise price equal to the lower of \$12.00 or the exercise price per share of the warrants sold in this offering. As a result of the foregoing, the Company will issue at least 173,318 Debenture and Fall 2016 Conversion Shares for principal and interest through March 31, 2017 to the Debenture and Fall 2016 Holders upon the consummation of this Offering in consideration of the conversion of their Debenture Obligation assuming a conversion price of \$4.50, which is the mid-point of the estimated offering price range on the cover of this prospectus . Each person entering into the Debenture and Fall 2016 Holder Letter Agreements have entered into lock-up agreements prohibiting the sale or other transfer of any securities of the Company owned by such persons for a period of 3 months except for 2,287 shares of unrestricted common stock the Debenture and Fall 2016 Holders own as of the date of their letter agreements due to issuances by the Company of interest earned on the Debenture in the form of “payment in kind” shares of common stock.

On June 16, 2017, the Company entered into a letter agreement (the “Accredited Investor Letter Agreement” together with the Debenture Holder Letter Agreement and Debenture and Fall 2016 Letter Agreement, the “Letter Agreements”) with an accredited investor (the “Accredited Investor”). The Accredited Investor currently holds Debentures pursuant to which he is owed, as of March 31, 2017, principal and interest equal to \$4,741,609. This sum, along with the additional interest due from April 1 through the date of the consummation of the offering, is referred to herein as the “Accredited Investor Debenture Obligation”. The Accredited Investor also currently holds (i) Debenture Warrants, (ii) Fall 2016 Warrants, (iii) a promissory note issued in his favor in October 2016 in the principal amount of \$3,000,000 (the “Line of Credit Obligation”) and warrants to purchase common stock in connection therewith (the “Line of Credit Warrants”), and (iv) shares of the Company’s Series D, Series G, Series J, Series K, Series H1, and Series H2 Preferred Stock (collectively, the “Preferred Stock”). Pursuant to the letter agreement, the Accredited Investor agreed to convert all shares of Preferred Stock, into 493,557 shares of the Company’s common stock. The Accredited Investor Debenture Obligation will automatically convert upon consummation of this offering into 1,053,691 shares at a price equal to the lower of \$8.40 or the price per share paid by investors in this offering. The Line of Credit Obligation will automatically convert upon consummation of this offering into shares at a conversion price equal to 80% of the price per share of common stock paid by investors in this offering along with a new warrant substantially similar to the warrants being included in this offering, except such new warrants will have a cashless exercise provision, and will have an exercise price equal to 80% of the exercise price per share of the warrants issued to the investors in this offering, will be restricted securities, and will not trade on NASDAQ. As inducement to enter into the Accredited Investor Letter Agreement, the Accredited Investor’s Debenture Warrants, the Fall 2016 Warrants, and the Line of Credit Warrants shall be amended such that the exercise price of such warrant shall be the lower of \$12.00 and the exercise price of the warrants being sold to investors in this offering. In addition, the Debenture Warrants will no longer have a “Subsequent Equity Sales” provision that lowers the exercise price of the Debenture Warrants upon any future dilutive issuance of shares. The Accredited Investor will also be issued new warrants to purchase 29,833 shares of common stock at an exercise price of \$8.40 substantially in the form of the warrants being sold to investors in this offering, except such warrants will be restricted securities and will not publicly trade on NASDAQ. The Accredited Investor has entered into a lock-up agreement prohibiting the sale or other transfer of any securities of the Company owned by such person, with the exception of 31,070 shares of restricted common stock previously issued, for a period of 6 months.

As an added inducement for investors to enter into the Letter Agreements, the Company agreed that until the earlier of (i) twelve (12) months after the closing of this offering in the event that the Company raises at least \$11,000,000 by virtue of the sale of securities hereunder or (ii) ten (10) months after the closing of this offering in the event that the Company raises less than \$11,000,000 by virtue of the sale of the Company’s securities hereunder; the Company shall not issue or sell common stock, or grant any option to purchase, or sell or grant any right to reprice, or otherwise dispose of or issue (or announce any offer, sale, grant or any option to purchase or other disposition) any common stock (including pursuant to the terms of any outstanding securities issued prior to the date hereof (including, but not limited to, warrants, convertible notes, or other agreements) or any security entitling the holder thereof to acquire common stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive common stock (a “Common Stock Equivalent”) at an effective price per share less than price per share of common stock sold in this offering without the prior written consent of the Debenture Holders who hold at least 80% of the shares represented by the as-converted Debentures as of May 30, 2017, which such consent shall not be unreasonably withheld; provided however, that such issuances will not apply to Excepted Issuances. Excepted Issuance means (i) the Company’s issuance of common stock in full or partial consideration in connection with a strategic merger, acquisition, consolidation or purchase of substantially all of the securities or assets of a corporation or other entity, so long as such issuances are not for the purpose of raising capital, (ii) the Company’s issuances of common stock or the issuances or grants of options to purchase common stock to employees, directors, and consultants, pursuant to the Company’s stock option plan at or above fair market value, or (iii) securities upon the exercise or exchange of or conversion of any securities exercisable or exchangeable for or convertible into shares of common stock issued and outstanding as of June 15, 2017.

We reported a number of accomplishments in 2016:

On January 12, 2016 SCIEX, a global leader in life science analytical technologies (Framingham, MA) and a wholly-owned subsidiary of Danaher Corporation (NYSE: DHR), announced an exclusive co-marketing agreement with us to improve protein quantification in complex samples.

On February 3, 2016 SCIEX and Children's Medical Research Institute (Sydney, Australia) announced they had joined forces to advance the promise of precision medicine. The partners stated they would benefit from SCIEX's exclusive collaborators, including Pressure BioSciences, and our PCT platform for increased protein quantitation and reproducibility.

On March 31, 2016, in connection with the seventh and final closing (the "*Final Closing*") of a private placement debt financing pursuant to the Subscription Agreements, dated as of January, 11, 2016, January 20, 2016, January 29, 2016, February 26, 2016, March 10, 2016, March 17, 2016, March 24, 2016 and March 31, 2016 by and among us and various individuals (each, a "*Purchaser*" and together "*Purchasers*"), including all five members of our Board of Directors, we sold and issued to the Purchasers Senior Secured Convertible Debentures (the "*Debentures*") and warrants to purchase shares of common stock equal to 50% of the number of shares issuable pursuant to the subscription amount (the "*Warrants*") for an aggregate purchase price of \$1,419,549 (the "*Purchase Price*") for the Final Closing, bringing the total raised in the Offering to \$6,329,549. For the Final Closing, we netted \$1,304,049 in cash after taking into account fees related to the offering. Of this amount, an aggregate of \$164,549 was invested by the five members of our Board of Directors. For the entire private placement offering, we netted an aggregate of \$5,101,049 in cash in the aggregate after subtracting \$568,000 in fees and \$660,000 in debt conversions into this private placement.

On July 13, 2016, we announced the unveiling of the newest addition to our product line based on our powerful PCT platform, the 2320EXT. The product unveiling took place during the recent annual conference of the American Society for Mass Spectrometry ("*ASMS*") in San Antonio, Texas.

On July 21, 2016, we announced the initial shipment of our 2320EXT instrument to an Australian cancer research group (ProCan) named by the White House as a collaborator in the U.S.'s "Cancer Moonshot" initiative.

On October 28, 2016, an accredited investor (the “*Investor*”) purchased from us a promissory note in the aggregate principal amount of up to \$2,000,000 (the “*Revolving Note*”) due and payable on the earlier of October 28, 2017 (the “*Maturity Date*”) or on the seventh business day after the closing of a Qualified Offering (as defined in the Revolving Note). Although the Revolving Note is dated October 26, 2016, the transaction did not close until October 28, 2016, when we received its initial \$250,000 advance pursuant to the Revolving Note. As a result, on the same day and pursuant to the Revolving Note, we issued to the Investor a Common Stock Purchase Warrant to purchase 20,834 shares of our common stock at an exercise price per share equal to \$12.00 per share. The Investor is obligated to provide us with advances of \$250,000 under the Revolving Note, but the Investor shall not be required to advance more than \$250,000 in any individual fifteen (15) day period and no more than \$500,000 in the thirty (30) day period immediately following the date of the initial advance. Notwithstanding the fifteen (15) day period limitation, on November 2, 2016, November 23, 2016, December 6, 2016, and December 16, 2016, we received \$1,000,000 pursuant to the Revolving Note and we issued to the Investor additional warrants to purchase a total of 83,334 shares of our common stock at \$12.00 per share (each warrant gives the Investor the right to purchase 20,834 shares of our common stock). The terms of the Warrants are identical except for the exercise date, issue date, and termination date. Interest on the principal balance of the Revolving Note shall be paid in full on the Maturity Date, unless otherwise paid prior to the Maturity Date.

Corporate Information

We were incorporated in the Commonwealth of Massachusetts in August 1978 as Boston Biomedica, Inc. In September 2004, we completed the sale of Boston Biomedica’s core business units and began to focus exclusively on the development and commercialization of the PCT platform. Following this change in business strategy, we changed our legal name from Boston Biomedica, Inc. to Pressure BioSciences, Inc. (“*PBI*”). We began operations as PBI in February 2005, research and development activities in April 2006, early marketing and selling activities of our Barocycler® instruments in late 2007, and active marketing and selling of our PCT-based instrument platform in 2012.

Where You Can Find More Information

Our website address is www.pressurebiosciences.com. We do not intend for our website address to be an active link or to otherwise incorporate by reference the contents of the website into this prospectus. The public may read and copy any materials the Company files with the U.S. Securities and Exchange Commission (the “SEC”) at the SEC’s Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0030. The SEC maintains an Internet website (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

THE OFFERING

Securities offered by us:	An aggregate of 2,777,778 shares of our common stock and warrants to purchase 1,388,889 shares of our common stock. Each warrant will have a per share exercise price of \$5.625 per share, is exercisable immediately and will expire five years from the date of issuance. A warrant to purchase one share of common stock will accompany every two shares of common stock purchased. The shares and warrants will trade separately.
Common stock outstanding before the offering	1,101,884 Shares ⁽¹⁾
Common stock to be outstanding after the offering	3,879,662 Shares ⁽¹⁾
Option to purchase additional shares	We have granted the underwriters a 45-day option to purchase up to 416,667 additional shares of our common stock and/or warrants to purchase 208,333 additional shares to cover allotments, if any.
Description of the warrants offered hereby	The warrants will have a per share exercise price of \$5.625. The warrants are exercisable immediately and expire five years from the date of issuance. The exercise price and the number of shares of common stock purchasable upon the exercise of the warrants are subject to adjustment upon the occurrence of specific events, including stock dividends, stock splits, combinations and reclassifications of our common stock.
Use of proceeds	We intend to use the net proceeds of this offering for: the repayment of liabilities; research and development for new products and improvements to existing products, upgrading sales and marketing capabilities, the purchase of raw materials and labor for manufacturing our products, upgrading our operations capabilities, and for general working capital purposes. See "Use of Proceeds."
Risk factors	Investing in our securities is highly speculative and involves a high degree of risk. You should carefully consider the information set forth in the "Risk Factors" section beginning on page 19 before deciding to invest in our securities.
Trading Symbols	Our common stock is currently quoted on the OTCQB under the trading symbol "PBIO". We applied to the NASDAQ Capital Market to list our common stock under the symbol "PBIO" and our warrants under the symbol "PBIOW" and expect such listings to occur concurrently with this offering. However, there is no guarantee that our applications will be granted.
Lock-up	We and our directors, officers and any other 5% or greater holder of outstanding shares of our common stock have agreed with the underwriters not to offer for sale, issue, sell, contract to sell, pledge or otherwise dispose of any of our common stock or securities convertible into common stock for a period of (i) six months after the date of this prospectus in the case of our directors and officers and (ii) three months after the date of this prospectus in the case of the Company and any other 5% or greater holder of our outstanding securities, without the prior written consent of the representative. See "Underwriting" section on page 80.

NASDAQ listing requirements include, among other things, a stock price threshold. This prospectus reflects and assumes a 1-for-30 reverse stock split of our common stock that took effect on June 5, 2017.

(1) Based on an assumed offering price of \$4.50 which represents \$4.49 per share and \$0.01 per warrant and is the mid-point of the estimated offering price range on the cover of this prospectus. The actual number of shares we will offer will be determined based on the actual public offering price.

The common stock to be outstanding before and after this offering is based on 1,101,884 shares outstanding as of August 4, 2017, and excludes the following as of such date:

- 250,109 shares issuable upon exercise of outstanding options with a weighted average exercise price of \$10.95;
- 2,915,436 shares remaining for issuance pursuant to 2013 Equity Incentive Plan;
- 4,870,063 shares remaining for issuance pursuant to 2015 Nonqualified Stock Option Plan;
- 890,048 shares issuable upon exercise of outstanding warrants with a weighted average exercise price of \$12.13;

- 55,833 shares issuable per a letter agreement with certain accredited investors;
- 493,557 shares issuable upon the conversion of Preferred Stock;
- 1,547,224 shares issuable upon the conversion of outstanding convertible notes (including convertible debentures);
- 833,334 shares issuable upon the conversion of the Revolving Note;
- 1,388,889 shares of common stock underlying the warrants to be issued to investors in connection with this offering;
- ____ shares of common stock underlying the warrants to be issued to the underwriters in connection with this offering.

SUMMARY CONSOLIDATED FINANCIAL INFORMATION

The following summary consolidated statements of operations data for the years ended December 31, 2016 and 2015 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated statements of operations data for the three month periods ended March 31, 2017 and 2016 and the consolidated balance sheets data as of March 31, 2017 are derived from our unaudited consolidated financial statements that are included elsewhere in this prospectus. The historical financial data presented below is not necessarily indicative of our financial results in future periods, and the results for the three-month period ended March 31, 2017 are not necessarily indicative of our operating results to be expected for the full fiscal year ending December 31, 2017 or any other period. You should read the summary consolidated financial data in conjunction with those financial statements and the accompanying notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Our consolidated financial statements are prepared and presented in accordance with United States generally accepted accounting principles, or U.S. GAAP. Our unaudited consolidated financial statements have been prepared on a basis consistent with our audited financial statements and include all adjustments, consisting of normal and recurring adjustments that we consider necessary for a fair presentation of the financial position and results of operations as of and for such periods.

SUMMARY OPERATING DATA

	For the Three Months Ended March 31,		Fiscal Years Ended December 31,	
	(unaudited)	(unaudited)		
	2017	2016	2016	2015
Total Revenue	\$ 551,357	\$ 510,478	\$ 1,976,487	\$ 1,797,691
Costs and expenses:				
Cost of products and services	235,997	221,699	834,012	609,054
Research and development	263,456	335,270	1,183,011	1,105,295
Selling and marketing	213,009	191,236	872,365	745,574
General and administrative	837,998	808,218	2,822,752	2,902,950
Total Operating Costs and Expenses	<u>1,550,460</u>	<u>1,556,423</u>	<u>5,712,140</u>	<u>5,362,873</u>
Operating Loss	<u>(999,103)</u>	<u>(1,045,945)</u>	<u>(3,735,653)</u>	<u>(3,565,182)</u>
Total other (expense) income	(4,595,412)	(4,904,446)	1,028,669	(3,850,116)
Accrued dividends on convertible preferred stock	-	-	-	(23,194)
Net loss applicable to common shareholders	<u>(5,594,515)</u>	<u>(5,950,391)</u>	<u>(2,706,984)</u>	<u>(7,438,492)</u>
Net loss per share attributable to common stockholders – basic and diluted	<u>\$ (5.38)</u>	<u>\$ (7.70)</u>	<u>\$ (2.97)</u>	<u>\$ (10.77)</u>
Weighted average common stock shares outstanding used in the basic and diluted net loss per share calculation:	<u>1,040,769</u>	<u>773,279</u>	<u>911,312</u>	<u>690,873</u>

The following table presents consolidated balance sheet data as of March 31, 2017 on:

- an actual basis;
- an as adjusted basis, giving effect to (i) advances from the Revolving Note in the amount of \$750,000, less financing fees of \$60,000, pursuant to the Revolving Loan in May 2017 and June 2017; (ii) promissory note of \$630,000 (iii) payment in full of a promissory note of \$589,189; (iv) net proceeds of \$327,731 in merchant loans; (v) 20,000 shares issuable per agreements with third parties; (vi) \$149,164 from warrant exercises and
- a pro forma, as adjusted basis, giving effect to (i) the issuance of the Revolving Note in the amount of \$750,000, less financing fees of \$60,000, (ii) promissory note of \$630,000 (iii) payment in full of a promissory note of \$589,189 (iv) the conversion of 300 shares of Series D Preferred Stock into approximately 25,000 shares of common stock, the conversion of 86,570 shares of Series G Preferred Stock into approximately 28,857 shares of common stock, the conversion of 10,000 shares of Series H Preferred Stock into approximately 33,334 shares of common stock, the conversion of 21 shares of Series H2 Preferred Stock into approximately 70,000 shares of common stock, the conversion of 3,521 shares of Series J Preferred Stock into approximately 117,367 shares of common stock and the conversion of 6,816 shares of Series K Preferred Stock into approximately 227,200 shares of common stock, (v) the conversion of \$6,962,504 of outstanding convertible notes (including convertible debentures) into approximately 1,547,224 shares of common stock and (vi) the sale by us of shares of common stock and warrants in this offering at an assumed public offering price of \$4.50 which represents \$4.49 per share and \$0.01 per warrant after deducting underwriting discounts and commissions and estimated offering expenses, (vii) net proceeds of \$327,731 in merchant loans, and (viii) 20,000 shares issuable per agreements with third parties; (ix) \$149,164 from warrant exercises.

The pro forma as adjusted information set forth below is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

	As of March 31, 2017		
	Actual	As Adjusted	Pro Forma, As Adjusted
Consolidated Balance Sheets Data:			
Cash and cash equivalents	\$ 121,438	\$ 1,329,144	\$ 12,556,952
Total assets	1,838,065	3,045,771	14,273,579
Total liabilities	15,302,548	16,211,090	3,774,763
Total stockholders' deficit	(13,464,483)	(13,165,319)	10,498,816

- (1) A \$1.00 increase or decrease in the assumed public offering price per share would increase or decrease our cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately \$ 2,800,000, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discount and estimated offering expenses payable by us.

RISK FACTORS

Investing in our securities involves a great deal of risk. Careful consideration should be made of the following factors as well as other information included in this prospectus before deciding to purchase our securities. There are many risks that affect our business and results of operations, some of which are beyond our control. Our business, financial condition or operating results could be materially harmed by any of these risks. This could cause the trading price of our securities to decline, and you may lose all or part of your investment. Additional risks that we do not yet know of or that we currently think are immaterial may also affect our business and results of operations.

RISKS RELATED TO OUR COMPANY

We have received an opinion from our independent registered public accounting firm expressing substantial doubt regarding our ability to continue as a going concern.

The audit report issued by our independent registered public accounting firm on our audited consolidated financial statements for the fiscal year ended December 31, 2016 contains an explanatory paragraph regarding our ability to continue as a going concern. The audit report states that our auditing firm has substantial doubt in our ability to continue as a going concern due to the risk that we may not have sufficient cash and liquid assets at December 31, 2016 to cover our operating and capital requirements for the next twelve-month period; and if sufficient cash cannot be obtained, we would have to substantially alter, or possibly even discontinue, operations. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Management has developed a plan to continue operations. This plan includes continued control of expenses and obtaining equity or debt financing. Although we have successfully completed equity financings and reduced expenses in the past, we cannot assure you that our plans to address these matters in the future will be successful.

The factors described above could adversely affect our ability to obtain additional financing on favorable terms, if at all, and may cause investors to have reservations about our long-term prospects, and may adversely affect our relationships with customers. There can be no assurance that our auditing firm will not issue the same opinion in the future. If we cannot successfully continue as a going concern, our stockholders may lose their entire investment.

Our revenue is dependent upon acceptance of our products by the market. The failure of such acceptance will cause us to curtail or cease operations.

Our revenue comes from the sale of our products. As a result, we will continue to incur operating losses until such time as sales of our products reach a mature level and we are able to generate sufficient revenue from the sale of our products to meet our operating expenses. There can be no assurance that customers will adopt our technology and products, or that businesses and prospective customers will agree to pay for our products. In the event that we are not able to significantly increase the number of customers that purchase our products, or if we are unable to charge the necessary prices, our financial condition and results of operations will be materially and adversely affected.

Our business could be adversely affected if we fail to implement and maintain effective disclosure controls and procedures and internal control over financial reporting.

We concluded that as of December 31, 2016, our disclosure controls and procedures and our internal control over financial reporting were not effective. We have determined that we have limited resources for adequate personnel to prepare and file reports under the Securities Exchange Act of 1934 within the required time periods and that material weaknesses in our internal control over financial reporting exist relating to our accounting for complex equity transactions. If we are unable to implement and maintain effective disclosure controls and procedures and remediate the material weaknesses in a timely manner, or if we identify other material weaknesses in the future, our ability to produce accurate and timely financial statements and public reports could be impaired, which could adversely affect our business and financial condition. We identified a lack of sufficient segregation of duties. Specifically, this material weakness is such that the design over these areas relies primarily on detective controls and could be strengthened by adding preventive controls to properly safeguard assets. In addition, investors may lose confidence in our reported information and the market price of our common stock may decline.

We have a history of operating losses, anticipate future losses and may never be profitable.

We have experienced significant operating losses in each period since we began investing resources in PCT and CP. These losses have resulted principally from research and development, sales and marketing, and general and administrative expenses associated with the development of our PCT business. During the three months ended March 31, 2017, we recorded a net loss applicable to common shareholders of \$5,594,515, or (\$5.38) per share, as compared with \$5,950,391, or (\$7.70) per share, of the corresponding period in 2016. We expect to continue to incur operating losses until sales of PCT and CP products increase substantially. We cannot be certain when, if ever, we will become profitable. Even if we were to become profitable, we might not be able to sustain such profitability on a quarterly or annual basis.

If we are unable to obtain additional financing, business operations will be harmed and if we do obtain additional financing then existing shareholders may suffer substantial dilution.

We need substantial capital to implement our sales distribution strategy for our current products and to develop and commercialize future products using our pressure cycling technology products and services in the sample preparation area, as well as for applications in other areas of life sciences. Our capital requirements will depend on many factors, including but not limited to:

- the problems, delays, expenses, and complications frequently encountered by early-stage companies;
- market acceptance of our pressure cycling technology products and services for sample preparation;
- the success of our sales and marketing programs; and
- changes in economic, regulatory or competitive conditions in the markets we intend to serve.

We expect the net proceeds from this offering, along with our current cash position, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 24 months. Thereafter, unless we achieve profitability, we anticipate that we will need to raise additional capital to fund our operations and to otherwise implement our overall business strategy. We currently do not have any contracts or commitments for additional financing. There can be no assurance that financing will be available in amounts or on terms acceptable to us, if at all. Any additional equity financing may involve substantial dilution to then existing shareholders.

If adequate funds are not available or if we fail to obtain acceptable additional financing, we may be required to:

- severely limit or cease our operations or otherwise reduce planned expenditures and forego other business opportunities, which could harm our business;
- obtain financing with terms that may have the effect of substantially diluting or adversely affecting the holdings or the rights of the holders of our capital stock; or
- obtain funds through arrangements with future collaboration partners or others that may require us to relinquish rights to some or all of our technologies or products.

Our financial results depend on revenues from our pressure cycling technology products and services, and from government grants.

We currently rely on revenues from PCT and CP technology products and services in the sample preparation area and from revenues derived from grants awarded to us by governmental agencies, such as the National Institutes of Health. We have been unable to achieve market acceptance of our product offerings to the extent necessary to achieve significant revenue. Competition for government grants is very intense, and we can provide no assurance that we will continue to be awarded grants in the future. If we are unable to increase revenues from sales of our pressure cycling technology products and services and government grants, our business will fail.

We may be unable to obtain market acceptance of our pressure cycling technology products and services.

Many of our initial sales of our pressure cycling technology products and services have been to our collaborators, following their use of our products in studies undertaken in sample preparation for genomics, proteomics and small molecules studies. Later sales have been to key opinion leaders. Our technology requires scientists and researchers to adopt a method of sample extraction that is different than existing techniques. Our PCT sample preparation system is also more costly than existing techniques. Our ability to obtain market acceptance will depend, in part, on our ability to demonstrate to our potential customers that the benefits and advantages of our technology outweigh the increased cost of our technology compared with existing methods of sample extraction. If we are unable to demonstrate the benefits and advantages of our products and technology as compared with existing technologies, we will not gain market acceptance and our business will fail.

Our business may be harmed if we encounter problems, delays, expenses, and complications that often affect companies that have not achieved significant market acceptance.

Our pressure cycling technology business continues to face challenges in achieving market acceptance. If we encounter problems, delays, expenses and complications, many of which may be beyond our control or may harm our business or prospects. These include:

- availability of adequate financing;
- unanticipated problems and costs relating to the development, testing, production, marketing, and sale of our products;
- delays and costs associated with our ability to attract and retain key personnel; and
- competition.

The sales cycle of our pressure cycling technology products is lengthy. We have incurred and may continue to incur significant expenses and we may not generate any significant revenue related to those products.

Many of our current and potential customers have required between three and six months or more to test and evaluate our pressure cycling technology products. This increases the possibility that a customer may decide to cancel its order or otherwise change its plans, which could reduce or eliminate our sales to that potential customer. As a result of this lengthy sales cycle, we have incurred and may continue to incur significant research and development, selling and marketing, and general and administrative expense related to customers from whom we have not yet generated any revenue from our products, and from whom we may never generate the anticipated revenue if a customer is not satisfied with the results of the evaluation of our products or if a customer cancels or changes its plans.

Our business could be harmed if our products contain undetected errors or defects.

We are continuously developing new and improving our existing, pressure cycling technology products in sample preparation and we expect to do so in other areas of life sciences depending upon the availability of our resources. Newly introduced products can contain undetected errors or defects. In addition, these products may not meet their performance specifications under all conditions or for all applications. If, despite internal testing and testing by our collaborators, any of our products contain errors or defects or fail to meet customer specifications, then we may be required to enhance or improve those products or technologies. We may not be able to do so on a timely basis, if at all, and may only be able to do so at considerable expense. In addition, any significant reliability problems could result in adverse customer reaction, negative publicity or legal claims and could harm our business and prospects.

Our success may depend on our ability to manage growth effectively.

Our failure to manage growth effectively could harm our business and prospects. Given our limited resources and personnel, growth of our business could place significant strain on our management, information technology systems, sources of manufacturing capacity and other resources. To properly manage our growth, we may need to hire additional employees and identify new sources of manufacturing capabilities. Failure to effectively manage our growth could make it difficult to manufacture our products and fill orders, as well as lead to declines in product quality or increased costs, any of which would adversely impact our business and results of operations.

Our success is substantially dependent on the continued service of our senior management.

Our success is substantially dependent on the continued service of our senior management, specifically our Chief Executive Officer, Richard Schumacher. The loss of the services of any of our senior management has made, and could make it more difficult to successfully operate our business and achieve our business goals. In addition, our failure to retain existing engineering, research and development and sales personnel could harm our product development capabilities and customer and employee relationships, delay the growth of sales of our products and could result in the loss of key information, expertise or know-how.

We may not be able to hire or retain the number of qualified personnel, particularly engineering and sales personnel, required for our business, which would harm the development and sales of our products and limit our ability to grow.

Competition in our industry for senior management, technical, sales, marketing, finance and other key personnel is intense. If we are unable to retain our existing personnel, or attract and train additional qualified personnel, either because of competition in our industry for such personnel or because of insufficient financial resources, our growth may be limited. Our success also depends in particular on our ability to identify, hire, train and retain qualified engineering and sales personnel with experience in design, development and sales of laboratory equipment.

Our reliance on a single third party for all of our manufacturing, and certain of our engineering, and other related services could harm our business.

We currently solely rely on CBM Industries, a third party contract manufacturer, to manufacture our PCT instrumentation, provide manufacturing expertise, and manage the majority of our sub-contractor supplier relationships. Because of our dependence on one manufacturer, our success will depend, in part, on the ability of CBM to manufacture our products cost effectively, in sufficient quantities to meet our customer demand, if and when such demand occurs, and meeting our quality requirements. If CBM experiences manufacturing problems or delays, or if CBM decides not to continue to provide us with these services, our business may be harmed. While we believe other contract manufacturers are available to address our manufacturing and engineering needs, if we find it necessary to replace CBM, there will be a disruption in our business and we would incur additional costs and delays that would harm our business.

Our failure to manage current or future alliances or joint ventures effectively may harm our business.

We have entered into business relationships with four distribution partners and one co-marketing partner, and we may enter into additional alliances, joint ventures or other business relationships to further develop, market and sell our pressure cycling technology product line. We may not be able to:

- identify appropriate candidates for alliances, joint ventures or other business relationships;
- assure that any candidate for an alliance, joint venture or business relationship will provide us with the support anticipated;
- successfully negotiate an alliance, joint venture or business relationship on terms that are advantageous to us; or
- successfully manage any alliance or joint venture.

Furthermore, any alliance, joint venture or other business relationship may divert management time and resources. Entering into a disadvantageous alliance, joint venture or business relationship, failing to manage an alliance, joint venture or business relationship effectively, or failing to comply with any obligations in connection therewith, could harm our business and prospects.

We may not be successful in growing our international sales.

We cannot guarantee that we will successfully develop our international sales channels to enable us to generate significant revenue from international sales. We currently have four international distribution agreements that cover 24 countries in Europe, Asia and Australia. We have generated limited sales to date from international sales and cannot guarantee that we will be able to increase our sales. As we expand, our international operations may be subject to numerous risks and challenges, including:

- multiple, conflicting and changing governmental laws and regulations, including those that regulate high pressure equipment;
- reduced protection for intellectual property rights in some countries;
- protectionist laws and business practices that favor local companies;
- political and economic changes and disruptions;
- export and import controls;
- tariff regulations; and
- currency fluctuations.

Our operating results are subject to quarterly variation. Our operating results may fluctuate significantly from period to period depending on a variety of factors, including but not limited to the following:

- our ability to increase our sales of our pressure cycling technology products for sample preparation on a consistent quarterly or annual basis;
- the lengthy sales cycle for our products;
- the product mix of the Barocycler® instruments we install in a given period, and whether the installations are completed pursuant to sales, rental or lease arrangements, and the average selling prices that we are able to command for our products;
- our ability to manage our costs and expenses;
- our ability to continue our research and development activities without incurring unexpected costs and expenses; and
- our ability to comply with state and federal regulations without incurring unexpected costs and expenses.

Our instrumentation operates at high pressures and may therefore become subject to certain regulations in the European Community. Regulation of high pressure equipment may limit or hinder our development and sale of future instrumentation.

Our Barocycler® instruments operate at high pressures. If our Barocycler® instruments exceed certain pressure levels, our products may become subject to the European Pressure Equipment Directive, which requires certain pressure equipment meet certain quality and safety standards. We do not believe that we are subject to this directive because our Barocycler® instruments are currently below the threshold documented in the text of the directive. If our interpretation were to be challenged, we could incur significant costs defending the challenge, and we could face production and selling delays, all of which could harm our business.

We expect that we will be subject to regulation in the United States, such as by the Food and Drug Administration, and overseas, if and when we begin to invest more resources in the development and commercialization of PCT in applications outside of sample preparation for the research field.

Our current pressure cycling technology products in the area of sample preparation for the research field are not regulated by the FDA. Certain applications in which we intend to develop and commercialize pressure cycling technology, such as protein purification, pathogen inactivation and immunodiagnosics, are expected to require regulatory approvals or clearances from regulatory agencies, such as the FDA, prior to commercialization, when we expand our commercialization activities outside of the research field. We expect that obtaining these approvals or clearances will require a significant investment of time and capital resources and there can be no assurance that such investments will receive approvals or clearances that would allow us to commercialize the technology for these applications.

If we are unable to protect our patents and other proprietary technology relating to our pressure cycling technology products, our business will be harmed.

Our ability to further develop and successfully commercialize our products will depend, in part, on our ability to enforce our patents, preserve our trade secrets, and operate without infringing the proprietary rights of third parties. PBI has 14 United States granted patents and 1 foreign granted patent (Japan: 5587770, EXTRACTION AND PARTITIONING OF MOLECULES) covering multiple applications of PCT in the life sciences field. The patents expire between 2017 and 2032. PBI also has 19 pending patents in the USA, Canada, Europe, Australia, China, and Taiwan. There can be no assurance that (a) any patent applications filed by us will result in issued patents; (b) patent protection will be secured for any particular technology; (c) any patents that have been or may be issued to us will be valid or enforceable; (d) any patents will provide meaningful protection to us; (e) others will not be able to design around our patents; and (f) our patents will provide a competitive advantage or have commercial value. The failure to obtain adequate patent protection would have a material adverse effect on us and may adversely affect our ability to enter into, or affect the terms of, any arrangement for the marketing or sale of any product.

Our patents may be challenged by others.

We could incur substantial costs in patent proceedings, including interference proceedings before the United States Patent and Trademark Office, and comparable proceedings before similar agencies in other countries, in connection with any claims that may arise in the future. These proceedings could result in adverse decisions about the patentability of our inventions and products, as well as about the enforceability, validity, or scope of protection afforded by the patents.

If we are unable to maintain the confidentiality of our trade secrets and proprietary knowledge, others may develop technology and products that could prevent the successful commercialization of our products.

We rely on trade secrets and other unpatented proprietary information in our product development activities. To the extent we rely on trade secrets and unpatented know-how to maintain our competitive technological position, there can be no assurance that others may not independently develop the same or similar technologies. We seek to protect our trade secrets and proprietary knowledge, in part, through confidentiality agreements with our employees, consultants, advisors and contractors. These agreements may not be sufficient to effectively prevent disclosure of our confidential information and may not provide us with an adequate remedy in the event of unauthorized disclosure of such information. If our employees, consultants, advisors, or contractors develop inventions or processes independently that may be applicable to our products, disputes may arise about ownership of proprietary rights to those inventions and processes. Such inventions and processes will not necessarily become our property, but may remain the property of those persons or their employers. Protracted and costly litigation could be necessary to enforce and determine the scope of our proprietary rights. Failure to obtain or maintain trade secret protection, for any reason, could harm our business.

If we infringe on the intellectual property rights of others, our business may be harmed.

It is possible that the manufacture, use or sale of our pressure cycling technology products or services may infringe patent or other intellectual property rights of others. We may be unable to avoid infringement of the patent or other intellectual property rights of others and may be required to seek a license, defend an infringement action, or challenge the validity of the patents or other intellectual property rights in court. We may be unable to secure a license on terms and conditions acceptable to us, if at all. Also, we may not prevail in any patent or other intellectual property rights litigation. Patent or other intellectual property rights litigation is costly and time-consuming, and there can be no assurance that we will have sufficient resources to bring any possible litigation related to such infringement to a successful conclusion. If we do not obtain a license under such patents or other intellectual property rights, or if we are found liable for infringement, or if we are unsuccessful in having such patents declared invalid, we may be liable for significant monetary damages, may encounter significant delays in successfully commercializing and developing our pressure cycling technology products, or may be precluded from participating in the manufacture, use, or sale of our pressure cycling technology products or services requiring such licenses.

We may be unable to adequately respond to rapid changes in technology and the development of new industry standards.

The introduction of products and services embodying new technology and the emergence of new industry standards may render our existing pressure cycling technology products and related services obsolete and unmarketable if we are unable to adapt to change. We may be unable to allocate the funds necessary to improve our current products or introduce new products to address our customers' needs and respond to technological change. In the event that other companies develop more technologically advanced products, our competitive position relative to such companies would be harmed.

We may not be able to compete successfully with others that are developing or have developed competitive technologies and products.

A number of companies have developed, or are expected to develop, products that compete or will compete with our products. We compete with companies that have existing technologies for the extraction of nucleic acids, proteins and small molecules from cells and tissues, including but not limited to methods such as mortar and pestle, sonication, rotor-stator homogenization, French press, bead beating, freezer milling, enzymatic digestion, and chemical dissolution.

We are aware that there are additional companies pursuing new technologies with similar goals to the products developed or being developed by us. Some of the companies with which we now compete, or may compete in the future, have or may have more extensive research, marketing, and manufacturing capabilities, more experience in genomics and proteomics sample preparation, protein purification, pathogen inactivation, immunodiagnosics, and DNA sequencing and significantly greater technical, personnel and financial resources than we do, and may be better positioned to continue to improve their technology to compete in an evolving industry. To compete, we must be able to demonstrate to potential customers that our products provide improved performance and capabilities. Our failure to compete successfully could harm our business and prospects.

We will need to increase the size of our organization, and may experience difficulties in managing growth.

We are a small company with a minimal number of employees. We expect to experience a period of expansion in headcount, facilities, infrastructure and overhead and anticipate that further expansion will be required to address potential growth and market opportunities. Future growth will impose significant added responsibilities on members of management, including the need to identify, recruit, maintain and integrate new managers. Our future financial performance and its ability to compete effectively will depend, in part, on its ability to manage any future growth effectively.

Provisions in our Restated Articles of Organization and By-laws may discourage or frustrate stockholders' attempts to remove or replace our current management.

Our Restated Articles of Organization, as amended and By-laws, as amended, contain provisions that may make it more difficult or discourage changes in our management that our stockholders may consider to be favorable. These provisions include:

- a classified board of directors;
- advance notice for stockholder nominations to the board of directors;
- limitations on the ability of stockholders to remove directors; and
- a provision that allows a majority of the directors to fill vacancies on the board of directors.

These provisions could prevent or frustrate attempts to make changes in our management that our stockholders consider to be beneficial and could limit the price that our stockholders might receive in the future for shares of our common stock.

The costs of compliance with the reporting obligations of the Exchange Act, and with the requirements of the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Wall Street Reform and Consumer Protection Act, may place a strain on our limited resources and our management's attention may be diverted from other business concerns.

As a result of the regulatory requirements applicable to public companies, we incur legal, accounting, and other expenses that are significant in relation to the size of our Company. In addition, the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules subsequently implemented by the SEC and OTC Markets Group, Inc., have required changes in corporate governance and financial disclosure practices of public companies, some of which are currently applicable to us and others will or may become applicable to us in the future. These rules and regulations have increased and will continue to increase our legal and financial compliance costs and may make some activities more time-consuming. These requirements have placed and will continue to place a strain on our systems and on our management and financial resources.

Certain of our net deferred tax assets could be substantially limited if we experience an ownership change as defined in the Internal Revenue Code.

Certain of our net operating losses ("NOLs") give rise to net deferred tax assets. Our ability to utilize NOLs and to offset our future taxable income and/or to recover previously paid taxes would be limited if we were to undergo an "ownership change" within the meaning of Section 382 of the Internal Revenue Code (the "Code"). In general, an "ownership change" occurs whenever the percentage of the stock of a corporation owned by "5 percent shareholders," within the meaning of Section 382 of the Code, increases by more than 50 percentage points over the lowest percentage of the stock of such corporation owned by such "5 percent shareholders" at any time over the preceding three years.

An ownership change under Section 382 of the Code would establish an annual limitation on the amount of NOLs we could utilize to offset our taxable income in any single taxable year to an amount equal to (i) the product of a specified rate, which is published by the U.S. Treasury, and the aggregate value of our outstanding stock plus; and (ii) the amount of unutilized limitation from prior years. The application of these limitations might prevent full utilization of the deferred tax assets attributable to our NOLs. We may have or will have experienced an ownership change as defined by Section 382 through the sale of equity and, therefore, we will consider whether the sale of equity units will result in limitations of our net operating losses under Section 382 when we start to generate taxable income. However, whether a change in ownership occurs in the future is largely outside of our control, and there can be no assurance that such a change will not occur.

RISKS RELATING TO OWNERSHIP OF OUR SECURITIES

The holders of our Common Stock could suffer substantial dilution due to our corporate financing practices.

The holders of our common stock could suffer substantial dilution due to our corporate financing practices, which, in the past few years, have included private placements and a registered direct offering. As of March 31, 2017, we have issued shares of Series A Convertible Preferred Stock, Series B Convertible Preferred Stock, Series C Convertible Preferred Stock, Series D Convertible Preferred Stock, Series E Convertible Preferred Stock, Series G Convertible Preferred Stock, Series H Convertible Preferred Stock, Series H2 Convertible Preferred Stock, Series J Convertible Preferred Stock and Series K Convertible Preferred Stock.

As of March 31, 2017, all of the shares of Series A Convertible Preferred Stock, Series B Convertible Preferred Stock, Series C Convertible Preferred Stock, and Series E Convertible Preferred Stock had been converted into shares of common stock. As of March 31, 2017 only shares of Series D Convertible Preferred Stock, Series G Convertible Preferred Stock, Series H Convertible Preferred Stock, Series H2 Convertible Preferred Stock, Series J Convertible Preferred Stock and Series K Convertible Preferred Stock were outstanding. Further, in connection with those private placements and the Series D registered direct offering, we issued warrants to purchase common stock. In addition, as of March 31, 2017, we had issued notes convertible into common stock at prices ranging from \$8.40 to \$13.50 per common share. If all of the outstanding shares of Series D Convertible Preferred Stock, Series G Convertible Preferred Stock, Series H Convertible Preferred Stock, Series H2 Convertible Preferred Stock, Series J Convertible Preferred Stock and Series K Convertible Preferred Stock were converted into shares of common stock and all outstanding options and warrants to purchase shares of common stock were exercised and all notes were converted, each as of March 31, 2017, an additional 2,477,783 shares of common stock would be issued and outstanding. This additional issuance of shares of common stock would cause immediate and substantial dilution to our existing stockholders and could cause a significant reduction in the market price of our common stock.

Sales of a significant number of shares of our common stock in the public market or the perception of such possible sales, could depress the market price of our common stock.

Sales of a substantial number of shares of our common stock in the public markets, which include an offering of our preferred stock or common stock could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity or equity-related securities. We cannot predict the effect that future sales of our common stock or other equity-related securities would have on the market price of our common stock.

Our share price could be volatile and our trading volume may fluctuate substantially.

The price of common stock has been and may in the future continue to be extremely volatile. Many factors could have a significant impact on the future price of our shares of common stock, including:

- our inability to raise additional capital to fund our operations, whether through the issuance of equity securities or debt;
- our failure to successfully implement our business objectives;
- compliance with ongoing regulatory requirements;
- market acceptance of our products;
- technological innovations and new commercial products by our competitors;
- changes in government regulations;
- general economic conditions and other external factors;
- actual or anticipated fluctuations in our quarterly financial and operating results; and
- the degree of trading liquidity in our shares of common stock.

A decline in the price of our shares of common stock could affect our ability to raise further working capital and adversely impact our ability to continue operations.

The relatively low price of our shares of common stock, and a decline in the price of our shares of common stock, could result in a reduction in the liquidity of our common stock and a reduction in our ability to raise capital. Because a significant portion of our operations has been and will continue to be financed through the sale of equity securities, a decline in the price of our shares of common stock could be especially detrimental to our liquidity and our operations. Such reductions and declines may force us to reallocate funds from other planned uses and may have a significant negative effect on our business plans and operations, including our ability to continue our current operations. If the price for our shares of common stock declines, it may be more difficult to raise additional capital. If we are unable to raise sufficient capital, and we are unable to generate funds from operations sufficient to meet our obligations, we will not have the resources to continue our operations.

The market price for our shares of common stock may also be affected by our ability to meet or exceed expectations of analysts or investors. Any failure to meet these expectations, even if minor, may have a material adverse effect on the market price of our shares of common stock.

If we issue additional securities in the future, it will likely result in the dilution of our shares of existing stockholders.

As of March 31, 2017, there were 1,060,328 shares of common stock issued and outstanding. Similarly, at such time, there were no shares of Series A Junior Participating Preferred Stock; Series A Convertible Preferred Stock; Series B Convertible Preferred Stock; Series C Convertible Preferred Stock; and Series E Convertible Preferred Stock. As of March 31, 2017 there were 300 shares of Series D Convertible Preferred Stock issued and outstanding and convertible into 25,000 shares of common stock, 86,570 shares of Series G Convertible Preferred Stock issued and outstanding convertible into 28,857 shares of common stock, 10,000 shares of Series H Convertible Preferred Stock issued and outstanding convertible into 33,334 shares of common stock, 21 shares of Series H2 Convertible Preferred Stock issued and outstanding convertible into 70,000 shares of common stock, 3,521 shares of Series J Convertible Preferred Stock issued and outstanding convertible into 117,367 shares of common stock, and 6,816 shares of Series K Convertible Preferred Stock issued and outstanding convertible into 227,200 shares of common stock.

As of March 31, 2017, there were outstanding options and warrants to purchase an aggregate of 1,107,115 shares of common stock; and convertible debt convertible into 868,910 shares of common stock. From time to time, we also may increase the number of shares available for issuance in connection with our equity compensation plan, we may adopt new equity compensation plans, and we may issue awards to our employees and others who provide services to us outside the terms of our equity compensation plans. Our board of directors may fix and determine the designations, rights, preferences or other variations of each class or series of preferred stock and may choose to issue some or all of such shares to provide additional financing in the future.

The issuance of any securities for acquisition, licensing or financing efforts, upon conversion of any preferred stock or exercise of warrants, pursuant to our equity compensation plans, or otherwise may result in a reduction of the book value and market price of the outstanding shares of our common stock. If we issue any such additional securities, such issuance will cause a reduction in the proportionate ownership and voting power of all current stockholders. Further, such issuance may result in a change in control of our Company.

Financial Industry Regulatory Authority ("FINRA") sales practice requirements may also limit a stockholder's ability to buy and sell our common stock.

FINRA has adopted rules that require that in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA believes that there is a high probability that speculative low-priced securities will not be suitable for at least some customers. FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our common stock, which may limit your ability to buy and sell our common stock and have an adverse effect on the market for our shares.

Our Common Stock is subject to the “Penny Stock” rules of the SEC and the trading market in our securities is limited, which makes transactions in our stock cumbersome and may reduce the value of an investment in our stock.

The Securities and Exchange Commission has adopted Rule 15g-9 which establishes the definition of a “penny stock,” for the purposes relevant to us, as any equity security that has a market price of less than \$5.00 per share or with an exercise price of less than \$5.00 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, the rules require:

- That a broker or dealer approve a person’s account for transactions in penny stocks; and
- The broker or dealer receives from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased.

In order to approve a person’s account for transactions in penny stocks, the broker or dealer must:

- Obtain financial information and investment experience objectives of the person; and
- Make a reasonable determination that the transactions in penny stocks are suitable for that person and the person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks.

The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prescribed by the Commission relating to the penny stock market, which, in highlight form:

- Sets forth the basis on which the broker or dealer made the suitability determination; and
- That the broker or dealer received a signed, written agreement from the investor prior to the transaction.

Generally, brokers may be less willing to execute transactions in securities subject to the “penny stock” rules. This may make it more difficult for investors to dispose of our common stock and cause a decline in the market value of our stock.

Disclosure also has to be made about the risks of investing in penny stocks in both public offerings and in secondary trading and about the commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks.

We have never declared or paid a cash dividend on our common stock and we do not expect to pay cash dividends on our common stock in the foreseeable future.

Our shares of Series D Convertible Preferred Stock are entitled to certain rights, privileges and preferences over our common stock, including a preference upon a liquidation of our Company, which will reduce amounts available for distribution to the holders of our common stock.

The holders of our shares of Series D are entitled to payment, prior to payment to the holders of common stock in the event of liquidation of the Company. If we are dissolved, liquidated or wound up at a time when the Series D Preferred Stock remain outstanding, the holders of the Series D Preferred Stock will be entitled to receive only an amount equal to the liquidation preference (as it may be adjusted from time to time), plus any accumulated and unpaid dividends, to the extent that we have funds legally available. Any remaining assets will be distributable to holders of our other equity securities.

Shares eligible for future sale may adversely affect the market.

From time to time, certain of our stockholders may be eligible to sell all or some of their shares of common stock by means of ordinary brokerage transactions in the open market pursuant to Rule 144 promulgated under the Securities Act, subject to certain limitations. In general, pursuant to amended Rule 144, non-affiliate stockholders may sell freely after six months subject only to the current public information requirement. Affiliates may sell after six months subject to the Rule 144 volume, manner of sale (for equity securities), current public information and notice requirements. Any substantial sales of our common stock pursuant to Rule 144 may have a material adverse effect on the market price of our common stock.

We currently do not intend to pay dividends on our common stock. As result, your only opportunity to achieve a return on your investment is if the price of our common stock appreciates.

We currently do not expect to declare or pay dividends on our common stock. In addition, in the future we may enter into agreements that prohibit or restrict our ability to declare or pay dividends on our common stock. As a result, your only opportunity to achieve a return on your investment will be if the market price of our common stock appreciates and you sell your shares at a profit.

We could issue additional common stock, which might dilute the book value of our Common Stock.

Our Board of Directors has authority, without action or vote of our shareholders, to issue all or a part of our authorized but unissued shares. Such stock issuances could be made at a price that reflects a discount or a premium from the then-current trading price of our common stock. In addition, in order to raise capital, we may need to issue securities that are convertible into or exchangeable for our common stock. These issuances would dilute the percentage ownership interest, which would have the effect of reducing your influence on matters on which our shareholders vote, and might dilute the book value of our common stock. You may incur additional dilution if holders of stock warrants or options, whether currently outstanding or subsequently granted, exercise their options, or if warrant holders exercise their warrants to purchase shares of our common stock.

RISKS RELATED TO THE OFFERING

There can be no assurances that our shares and/or warrants will be listed on NASDAQ Capital Market and, if they are, our shares will be subject to potential delisting if we do not meet or continue to maintain the listing requirements of NASDAQ Capital Market.

We applied to list the shares of our common stock on the NASDAQ Capital Market, or NASDAQ. An approval of our listing application by NASDAQ will be subject to, among other things, our fulfilling all of the listing requirements of NASDAQ. In addition, NASDAQ has rules for continued listing, including, without limitation, minimum market capitalization and other requirements. Failure to maintain our listing, or de-listing from NASDAQ, would make it more difficult for shareholders to dispose of our common stock and more difficult to obtain accurate price quotations on our common stock. This could have an adverse effect on the price of our common stock. Our ability to issue additional securities for financing or other purposes, or otherwise to arrange for any financing we may need in the future, may also be materially and adversely affected if our common stock is not traded on a national securities exchange.

In the event that our common stock and warrants are listed on the NASDAQ our stock price could fall and we could be delisted in which case broker-dealers may be discouraged from effecting transactions in shares of our common stock because they may be considered penny stocks and thus be subject to the penny stock rules.

The SEC has adopted a number of rules to regulate “penny stocks” that restricts transactions involving stock which is deemed to be penny stock. Such rules include Rules 3a51-1, 15g-1, 15g-2, 15g-3, 15g-4, 15g-5, 15g-6, 15g-7, and 15g-9 under the Securities and Exchange Act of 1934, as amended. These rules may have the effect of reducing the liquidity of penny stocks. “Penny stocks” generally are equity securities with a price of less than \$5.00 per share (other than securities registered on certain national securities exchanges or quoted on the NASDAQ Stock Market if current price and volume information with respect to transactions in such securities is provided by the exchange or system). Our securities currently constitute, “penny stock” within the meaning of the rules. The additional sales practice and disclosure requirements imposed upon U.S. broker-dealers may discourage such broker-dealers from effecting transactions in shares of our common stock, which could severely limit the market liquidity of such shares and impede their sale in the secondary market.

A U.S. broker-dealer selling penny stock to anyone other than an established customer or “accredited investor” (generally, an individual with net worth in excess of \$1,000,000 or an annual income exceeding \$200,000, or \$300,000 together with his or her spouse) must make a special suitability determination for the purchaser and must receive the purchaser’s written consent to the transaction prior to sale, unless the broker-dealer or the transaction is otherwise exempt. In addition, the “penny stock” regulations require the U.S. broker-dealer to deliver, prior to any transaction involving a “penny stock”, a disclosure schedule prepared in accordance with SEC standards relating to the “penny stock” market, unless the broker-dealer or the transaction is otherwise exempt. A U.S. broker-dealer is also required to disclose commissions payable to the U.S. broker-dealer and the registered representative and current quotations for the securities. Finally, a U.S. broker-dealer is required to submit monthly statements disclosing recent price information with respect to the “penny stock” held in a customer’s account and information with respect to the limited market in “penny stocks”.

Stockholders should be aware that, according to the SEC, the market for “penny stocks” has suffered in recent years from patterns of fraud and abuse. Such patterns include (i) control of the market for the security by one or a few broker-dealers that are often related to the promoter or issuer; (ii) manipulation of prices through prearranged matching of purchases and sales and false and misleading press releases; (iii) “boiler room” practices involving high-pressure sales tactics and unrealistic price projections by inexperienced sales persons; (iv) excessive and undisclosed bid-ask differentials and markups by selling broker-dealers; and (v) the wholesale dumping of the same securities by promoters and broker-dealers after prices have been manipulated to a desired level, resulting in investor losses. Our management is aware of the abuses that have occurred historically in the penny stock market. Although we do not expect to be in a position to dictate the behavior of the market or of broker-dealers who participate in the market, management will strive within the confines of practical limitations to prevent the described patterns from being established with respect to our securities.

Speculative Nature of Warrants

The warrants offered in this offering do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of our common stock at a fixed price for a limited period of time. Specifically, commencing on the date of issuance, holders of the warrants may exercise their right to acquire the common stock and pay an exercise price of \$5.625 per share (125% of public offering price of our common stock in this offering), prior to five years from the date of issuance, after which date any unexercised warrants will expire and have no further value. Moreover, following this offering, the market value of the warrants is uncertain and there can be no assurance that the market value of the warrants will equal or exceed their public offering price. There can be no assurance that the market price of the common stock will ever equal or exceed the exercise price of the warrants, and consequently, whether it will ever be profitable for holders of the warrants to exercise the warrants.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds, including for any of the purposes described in the section of this prospectus entitled “Use of Proceeds.” The failure by our management to apply these funds effectively could harm our business.

Sales of a substantial number of shares of our common stock following this offering may adversely affect the market price of our common stock and the issuance of additional shares will dilute all other shareholders.

Sales of a substantial number of shares of our common stock in the public market or otherwise following this offering, or the perception that such sales could occur, could adversely affect the market price of our common stock. After completion of this offering at an assumed offering price of \$4.50 which represents \$4.49 per share and \$0.01 per warrant, our existing stockholders will own approximately 63% of our common stock assuming there is no exercise of the underwriters’ over-allotment option.

After completion of this offering at an assumed offering price of \$4.50 per share there will be 3,879,662 shares of our common stock outstanding. In addition, our certificate of incorporation, as amended, permits the issuance of up to approximately 50,000,000 additional shares of common stock after the completion of this offering. Thus, we have the ability to issue substantial amounts of common stock in the future, which would dilute the percentage ownership held by the investors who purchase shares of our common stock in this offering.

We and our officers, directors and certain stockholders have agreed, subject to customary exceptions, not to, without the prior written consent of Joseph Gunnar & Co., LLC, the representative of the underwriters, during the period ending 180 days from the date of this offering in the case of our directors and officers and 90 days from the date of this offering in the case of us and our stockholders who beneficially own more than 5% of our common stock, directly or indirectly, offer to sell, sell, pledge or otherwise transfer or dispose of any of shares of our common stock, enter into any swap or other derivatives transaction that transfers to another any of the economic benefits or risks of ownership of shares of our common stock, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible into or exercisable or exchangeable for common stock or any other securities of the Company or publicly disclose the intention to do any of the foregoing.

After the lock-up agreements with our principal stockholders pertaining to this offering expire 90 days from the date of this offering unless waived earlier by the representative, up to 391,849 of the shares that had been locked up will be eligible for future sale in the public market. After the lock-up agreements with our directors and officers pertaining to this offering expire 180 days from the date of this offering unless waived earlier by the managing underwriter, up to 2,100,697 of the shares (net of any shares also restricted by lock-up agreements with our principal stockholders) that had been locked up will be eligible for future sale in the public market. Sales of a significant number of these shares of common stock in the public market could reduce the market price of the common stock.

The foregoing list is not all-inclusive. There can be no assurance that we have correctly identified and appropriately assessed all factors affecting our business or that the publicly available and other information with respect to these matters is complete and correct. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect us. These developments could have material adverse effects on our business, financial condition, results of operations and liquidity. For these reasons, the reader is cautioned not to place undue reliance on our forward-looking statements.

Following this offering, the market value of the warrants is uncertain and there can be no assurance that the market value of the warrants will equal or exceed their public offering price.

The warrants offered in this offering do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of our common stock at a fixed price for a limited period of time. Specifically, commencing on the date of issuance, holders of the warrants may exercise their right to acquire the common stock and pay an exercise price of 125% of the public offering price of our common stock in this offering, prior to five years from the date of issuance, after which date any unexercised warrants will expire and have no further value. Moreover, following this offering, the market value of the warrants is uncertain and there can be no assurance that the market value of the warrants will equal or exceed their public offering price. There can be no assurance that the market price of the common stock will ever equal or exceed the exercise price of the warrants, and consequently, whether it will ever be profitable for holders of the warrants to exercise the warrants.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the common stock and warrants in the offering will be approximately \$11.2 million, after deducting the underwriting discounts and commissions and estimated offering expenses, or \$13 million if the underwriters exercise their over-allotment option in full.

We currently expect to use the net proceeds of this offering primarily for the following purposes:

- approximately \$1,395,000 for the repayment of the following liabilities: (i) \$725,000 owed to an accredited investor (guaranteed interest rate of 10%, origination fee of 5%, and maturity date of July 2017); (ii) \$170,000 owed to an accredited investor (interest rate of 0%, original investment discount (OID) of 10%, and maturity date of November 2017); and (iii) \$500,000 owed to Bellridge Capital, LLC (interest rate of 10% and maturity date of November 2017). All of these liabilities will be completely repaid with the proceeds of this offering;
- approximately \$500,000 for research and development for new products and improvements to existing products, including but not limited to: (i) hiring of additional key personnel; (ii) upgrading of facilities; (iii) sub-contract costs associated with the design and development of robotics for the full automation of the PCT process; (iv) costs associated with the final development of our HUB880 and Barozyme instruments; (v) costs associated with our initial development of products in the area of ultra-shear technology (“UST”); (vi) vitally-needed research equipment (e.g., a mass spectrometer); and (vii) material costs for research activities;
- approximately \$750,000 to upgrade sales and marketing capabilities, including but not limited to professional relations, advertising, tradeshows, and adding a minimum of four additional full-time field sales directors (bringing the total to five);
- approximately \$1,600,000 to pay for the purchase of raw materials and labor for manufacturing an estimated 50 Barocycler® 2320EXTREME instruments, 10 HUB440 instruments, 10 HUB880 instruments, 25 PCT Shredder units, and 10 re-designed Barozyme HT48 commercial-ready instruments;
- approximately \$400,000 to upgrade our operations capabilities, including but not limited to hiring of key technical services and light manufacturing personnel; and renovations and additions to equipment and space;
- the remainder for working capital and other general corporate purposes.

We believe that the expected net proceeds from this offering and our existing cash and cash equivalents, together with interest thereon, will be sufficient to fund our operations for at least the next 24 months, although we cannot assure you that this will occur.

The amount and timing of our actual expenditures will depend on numerous factors, including the status of our development efforts, sales and marketing activities and the amount of cash generated or used by our operations. We may find it necessary or advisable to use portions of the proceeds for other purposes, and we will have broad discretion and flexibility in the application of the net proceeds. Pending these uses, the proceeds will be invested in short-term bank deposits.

MARKET FOR OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Market and Other Information

Our common stock is quoted on the OTC Markets Group Inc.'s OTCQB Link quotation platform (the "OTCQB") under the trading symbol "PBIO". We applied to the NASDAQ Capital Market to list our common stock under the symbol "PBIO".

Immediately following this offering, we expect to have one class of common stock outstanding and one class of preferred stock outstanding. As of August 4, 2017, there were approximately 85 holders of record of our common stock, and the last reported sale price of our common stock on the OTCQB was \$4.80 per share.

Our common stock was initially quoted on the OTCQB in 2014 and the following table sets forth the high and low sales price of our common stock on the OTCQB for the last two fiscal years. These prices are based on inter-dealer bid and asked prices, without markup, markdown, commissions, or adjustments and may not represent actual transactions.

PERIOD	High	Low
Fiscal Year Ending December 31, 2017:		
Quarter Ended September 30, 2017 (through August 4, 2017)	\$ 7.90	\$ 4.60
Quarter Ended June 30, 2017	\$ 10.50	4.60
Quarter Ended March 31, 2017	\$ 11.40	4.50
Fiscal Year Ended December 31, 2016:		
Quarter Ended December 31, 2016	\$ 12.00	5.40
Quarter Ended September 30, 2016	\$ 13.80	8.40
Quarter Ended June 30, 2016	\$ 17.40	7.80
Quarter Ended March 31, 2016	\$ 15.30	8.40
Fiscal Year Ended December 31, 2015:		
Quarter Ended December 31, 2015	\$ 14.70	6.00
Quarter Ended September 30, 2015	\$ 9.60	6.00
Quarter Ended June 30, 2015	\$ 11.40	6.00
Quarter Ended March 31, 2015	\$ 13.50	5.10

Dividend Policy

To date, we have not paid any dividends on our common stock and do not anticipate paying any such dividends in the foreseeable future. The declaration and payment of dividends on the common stock is at the discretion of our board of directors and will depend on, among other things, our operating results, financial condition, capital requirements, contractual restrictions or such other factors as our board of directors may deem relevant. We currently expect to use all available funds to finance the future development and expansion of our business and do not anticipate paying dividends on our common stock in the foreseeable future.

CAPITALIZATION

The following table sets forth our consolidated cash and cash equivalents and capitalization as of March 31, 2017. Such information is set forth on the following basis:

- an actual basis;
- an as adjusted basis, giving effect to (i) advances from the Revolving Note in the amount of \$750,000, less financing fees of \$60,000, pursuant to the Revolving Loan in May and June 2017; (ii) promissory note of \$630,000 (iii) payment in full of a promissory note of \$589,189; (iv) net proceeds of \$327,731 merchant loan ; (v) 20 ,000 shares issuable per agreements with third parties; (vi) \$149,164 from warrant exercises and
- a pro forma, as adjusted basis, giving effect to (i) advances from the Revolving Note in the amount of \$750,000, less financing fees of \$60,000, pursuant to the Revolving Loan in May and June 2017 (ii) the conversion of 300 shares of Series D Preferred Stock into approximately 25,000 shares of common stock, the conversion of 86,570 shares of Series G Preferred Stock into approximately 28,857 shares of common stock, the conversion of 10,000 shares of Series H Preferred Stock into approximately 33,334 shares of common stock, the conversion of 21 shares of Series H2 Preferred Stock into approximately 70,000 shares of common stock, the conversion of 3,521 shares of Series J Preferred Stock into approximately 117,367 shares of common stock and the conversion of 6,816 shares of Series K Preferred Stock into approximately 227,200 shares of common stock, (iii) the conversion of \$6,962,504 of outstanding convertible notes (including convertible debentures) into approximately 1,547,224 shares of common stock and (iv) the sale by us of shares of common stock and warrants in this offering at the mid point of the range on the cover of this prospectus, or \$4.50 which represents \$4.49 per share and \$0.01 per warrant after deducting underwriting discounts and commissions and estimated offering expenses and (v) net proceeds of \$327,731 in merchant loans, and (vi) 20,000 shares issuable per agreements with third parties; (vii) \$149,164 from warrant exercises.

In addition, the following table gives effect to the 1-for-30 reverse stock split of our common stock that took effect on June 5, 2017.

The pro forma as adjusted information below is illustrative only and our capitalization following the completion of this offering will be adjusted based on the actual public offering price and other terms of this offering determined at pricing. You should read this table together with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our audited and unaudited consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	As of March 31, 2017		
	Actual	As Adjusted	Pro forma, as Adjusted ^{(1) (2)}
CURRENT ASSETS			
Cash and cash equivalents	\$ 121,438	\$ 1,329,144	\$ 12,556,952
Accounts receivable, net of \$28,169 reserve	518,727	518,727	518,727
Inventories, net of \$20,000 reserve	940,383	940,383	940,383
Prepaid income taxes	7,405	7,405	7,405
Prepaid expenses and other current assets	207,745	207,745	207,745
Total current assets	1,795,698	3,003,404	14,231,212
Investment in available-for-sale equity securities	19,796	19,796	19,796
Property and equipment, net	22,571	22,571	22,571
Total Assets	1,838,065	3,045,771	14,273,579
Current liabilities:			
Accounts Payable	672,729	672,729	672,729
Accrued employee compensation	250,039	250,039	250,039
Accrued professional fees and other	990,425	990,425	990,425
Deferred revenue	145,918	145,918	145,918
Revolving note payable, net of unamortized debt discounts of \$839,969	1,410,031	1,950,031	-
Related party convertible debt, net of debt discounts of \$132,522	158,612	158,612	-
Convertible debt, net of unamortized discounts of \$1,987,382	5,213,529	4,624,340	-
Other debt, net of unamortized discounts of \$167,263	683,116	1,640,847	1,640,847
Warrant derivative liability	3,018,515	3,018,515	-
Conversion option derivative liability	2,679,404	2,679,404	-
Total current liabilities	15,222,318	16,130,860	3,699,958
Long term liabilities			
Convertible debt, net of unamortized discounts of \$5,575	5,425	5,425	-
Deferred revenue	74,805	74,805	74,805
Total long term liabilities	80,230	80,230	74,805
Total liabilities	15,302,548	16,211,090	3,774,763

	As of March 31, 2017		
	Actual	As Adjusted	Pro forma, as Adjusted (1) (2)
Stockholders' equity (deficit):			
Series D Convertible Preferred Stock, \$.01 par value; 850 shares authorized; 300 shares issued and outstanding (Liquidation value of \$300,000)	3	3	-
Series G Convertible Preferred Stock, \$.01 par value; 240,000 shares authorized; 86,570 shares issued and outstanding	866	866	-
Series H Convertible Preferred Stock, \$.01 par value; 10,000 shares authorized; 10,000 shares issued and outstanding	100	100	-
Series H2 Convertible Preferred Stock, \$.01 par value; 21 shares authorized; 21 shares issued and outstanding	-	-	-
Series J Convertible Preferred Stock, \$.01 par value; 6,250 shares authorized; 3,521 shares issued and outstanding	35	35	-
Series K Convertible Preferred Stock, \$.01 par value; 15,000 shares authorized; 6,816 shares issued and outstanding	68	68	-
Common stock, \$.01 par value; 100,000,000 shares authorized; 1,060,328 shares issued and outstanding	10,603	11,002	68,466
Warrants to acquire common stock	6,628,580	6,628,580	12,699,197
Additional paid-in capital	27,753,967	28,052,732	45,589,858
Accumulated deficit	(47,858,705)	(47,858,705)	(47,858,705)
Total stockholder's deficit	(13,464,483)	(13,165,319)	10,498,816
Total liabilities and stockholders' deficit	\$ 1,838,065	\$ 3,045,771	\$ 14,273,579

(1) Excludes (i) 260,475 shares of our common stock issuable upon exercise of outstanding stock options at a weighted average exercise price of \$11.10 per share as of March 31, 2017, (ii) 846,640 shares of our common stock issuable upon exercise of outstanding warrants at a weighted average exercise price of \$12.30 per share as of March 31, 2017, (iii) 7,775,650 shares of common stock available for issuance under our equity incentive plans, (v) ____ shares of common stock underlying the warrants to be issued to the underwriters in connection with this offering, and (vi) 416,667 shares of common stock issuable upon the exercise of the underwriters' over-allotment option.

(2) A \$1.00 increase or decrease in the assumed public offering price per share would increase or decrease our pro forma cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by approximately \$ 2,800,000 assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discount and estimated offering expenses payable by us.

DILUTION

The historical net tangible book value (deficit) of our common stock as of March 31, 2017 was (\$13,464,483), or \$12.70 per share based upon shares of common stock outstanding on such date. Historical net tangible book value (deficit) per share represents the amount of our total tangible assets reduced by the amount of our total liabilities, divided by the total number of shares of common stock outstanding.

Our pro forma net tangible book value (deficit) of our common stock as of March 31, 2017 was (\$13,464,483), or \$3.42 per share. Pro forma net tangible book value (deficit) represents total tangible assets less total liabilities. Pro forma net tangible book value (deficit) per share represents pro forma net tangible book value divided by the total number of shares outstanding as of March 31, 2017, after giving effect to (i) the conversion of 300 shares of Series D Preferred Stock into approximately 25,000 shares of common stock, the conversion of 86,570 shares of Series G Preferred Stock into approximately 28,857 shares of common stock, the conversion of 10,000 shares of Series H Preferred Stock into approximately 33,334 shares of common stock, the conversion of 21 shares of Series H2 Preferred Stock into approximately 70,000 shares of common stock, the conversion of 3,521 shares of Series J Preferred Stock into approximately 117,367 shares of common stock and the conversion of 6,816 shares of Series K Preferred Stock into approximately 227,200 shares of common stock, (ii) the conversion of \$6,962,504 of outstanding convertible notes (including convertible debentures) into approximately 1,547,224 shares of common stock and (iii) the conversion of \$3,000,000 Revolving Note into 833,334 shares.

After giving effect to the sale of 2,777,778 shares of our common stock at an assumed public offering price of \$4.50 which represents \$4.49 per share of common stock (which is based on an assumed mid-point of the estimated offering price range on the cover of this prospectus), and \$0.01 per warrant, after deducting the underwriting discounts and commissions and estimated offering costs payable by us, our as adjusted net tangible book value as of March 31, 2017, would have been approximately (\$2,236,675), or (\$0.33) per share of common stock. This represents an immediate increase in as adjusted net tangible book value of \$12.37 per share to existing stockholders and an immediate dilution of \$4.83 per share to investors purchasing shares of common stock in this offering at the assumed public offering price.

The following table illustrates this dilution on a per share basis to new investors:

	As of March 31, 2017	Pro Forma ⁽¹⁾
Assumed public offering price per share		\$ 4.50
Net tangible book value per share as of March 31, 2017	\$ (12.70)	
Increase in pro forma net tangible book value per share attributable to new investors	\$ 12.37	
Pro forma net tangible book value per share after giving effect to this offering		\$ (0.33)
Dilution in net tangible book value per share to new investors		\$ 4.83

(1) Calculated on a pro forma basis, giving effect to the conversion of all our outstanding shares of preferred stock into common stock.

The information above is as of March 31, 2017 and excludes the following:

- Excludes 260,475 shares of our common stock issuable upon exercise of outstanding stock options at a weighted average exercise price of \$11.10 per share as of March 31, 2017;
- 846,640 shares of our common stock issuable upon exercise of outstanding warrants at a weighted average exercise price of \$12.30 per share as of March 31, 2017; and
- 7,775,650 shares of common stock available for issuance under our equity incentive plans

If the underwriter's overallotment option is exercised, our adjusted pro forma net tangible book value following the offering will be \$ (0.07) per share, and the dilution to new investors in the offering will be \$4.57 per share.

A \$1.00 increase or decrease in the assumed public offering price per share would increase or decrease our pro forma as adjusted net tangible book value after this offering by approximately \$2,800,000, and dilution per share to new investors by approximately \$5.57 for an increase of \$1.00, or \$3.57 for a decrease of \$1.00, after deducting the underwriting discount and estimated offering expenses payable by us.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. Forward-looking statements give our current expectations or forecasts of future events. You can identify these statements by the fact that they do not relate strictly to historical or current facts. Forward-looking statements involve risks and uncertainties and include statements regarding, among other things, our projected revenue growth and profitability, our growth strategies and opportunity, anticipated trends in our market and our anticipated needs for working capital. They are generally identifiable by use of the words “may,” “will,” “should,” “anticipate,” “estimate,” “plans,” “potential,” “projects,” “continuing,” “ongoing,” “expects,” “management believes,” “we believe,” “we intend” or the negative of these words or other variations on these words or comparable terminology. These statements may be found under the sections entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” as well as in this prospectus generally. In particular, these include statements relating to future actions, prospective products, market acceptance, future performance or results of current and anticipated products, sales efforts, expenses, and the outcome of contingencies such as legal proceedings and financial results. Such forward-looking statements include, without limitation, statements regarding:

- our need for, and our ability to raise, additional equity or debt financing on acceptable terms, if at all;
- our need to take additional cost reduction measures, cease operations or sell our operating assets, if we are unable to obtain sufficient additional financing;
- our belief that we have sufficient liquidity to finance normal operations;
- the options we may pursue in light of our financial condition;
- the amount of cash necessary to operate our business;
- the anticipated uses of grant revenue and the potential for increased grant revenue in future periods;
- our plans and expectations with respect to our continued operations;
- our belief that pressure cycling technology (“PCT”) has achieved initial market acceptance in the mass spectrometry and other markets;
- the expected increase in the number of PCT and constant pressure based units installed and the increase in revenues from the sale of consumable products and extended service contracts;
- the expected development and success of new instrument and consumables product offerings;
- the potential applications for our instrument and consumables product offerings;
- the expected expenses of, and benefits and results from, our research and development efforts;
- the expected benefits and results from our collaboration programs, strategic alliances and joint ventures;
- our expectation of obtaining additional research grants from the government in the future;
- our expectations of the results of our development activities funded by government research grants;
- the potential size of the market for biological sample preparation;

- general economic conditions;
- the anticipated future financial performance and business operations of our company;
- our reasons for focusing our resources in the market for genomic, proteomic, lipidomic and small molecule sample preparation;
- the importance of mass spectrometry as a laboratory tool;
- the advantages of PCT over other current technologies as a method of biological sample preparation in biomarker discovery, forensics, and histology and for other applications;
- the capabilities and benefits of our PCT sample preparation system, consumables and other products;
- our belief that laboratory scientists will achieve results comparable with those reported to date by certain research scientists who have published or presented publicly on PCT and our other products;
- our ability to retain our core group of scientific, administrative and sales personnel; and
- our ability to expand our customer base in sample preparation and for other applications of PCT and our other products.

We operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for us to predict all of those risks, nor can we assess the impact of all of those risks on our business or the extent to which any factor may cause actual results to differ materially from those contained in any forward-looking statement. The forward-looking statements in this prospectus are based on assumptions management believes are reasonable. However, due to the uncertainties associated with forward-looking statements, you should not place undue reliance on any forward-looking statements. Further, forward-looking statements speak only as of the date they are made, and unless required by law, we expressly disclaim any obligation or undertaking to publicly update any of them in light of new information, future events, or otherwise.

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

The following discussion and analysis of the financial condition and results of our operations should be read in conjunction with our consolidated financial statements and the notes to those statements appearing elsewhere in this prospectus. This discussion and analysis contains forward-looking statements reflecting our management's current expectations that involve risks, uncertainties and assumptions. Our actual results and the timing of events may differ materially from those described in or implied by these forward-looking statements due to a number of factors, including those discussed below and elsewhere in this prospectus, particularly on page 19 entitled "Risk Factors".

Overview

We are focused on solving the challenging problems inherent in biological sample preparation, a crucial laboratory step performed by scientists worldwide working in biological life sciences research. Sample preparation is a term that refers to a wide range of activities that precede most forms of scientific analysis. Sample preparation is often complex, time-consuming and, in our belief, one of the most error-prone steps of scientific research. It is a widely-used laboratory undertaking – the requirements of which drive what we believe is a large and growing worldwide market. We have developed and patented a novel, enabling technology platform that can control the sample preparation process. It is based on harnessing the unique properties of high hydrostatic pressure. This process, which we refer to as PCT, uses alternating cycles of hydrostatic pressure between ambient and ultra-high levels i.e., 20,000 psi or greater to safely, conveniently and reproducibly control the actions of molecules in biological samples, such as cells and tissues from human, animal, plant and microbial sources.

PCT is an enabling platform technology based on a physical process that had not previously been used to control bio-molecular interactions. PCT uses internally developed instrumentation that is capable of cycling pressure between ambient and ultra-high levels at controlled temperatures and specific time intervals, to rapidly and repeatedly control the interactions of bio-molecules, such as proteins, DNA, RNA, lipids and small molecules. Our laboratory instrument family, the Barocycler[®], and our internally developed consumables product line, which include our unique MicroTubes, MicroCaps, MicroPestles, BaroFlex and PULSE[®] (Pressure Used to Lyse Samples for Extraction) Tubes, and application specific kits (containing consumable products and reagents), together make up our PCT SPS.

In 2015, together with an investment bank, we formed a subsidiary called Pressure BioSciences Europe ("PBI Europe") in Poland. We have 49% ownership interest with the investment bank retaining 51%. As of now, PBI Europe does not have any operating activities and we cannot reasonably predict when operations will commence. Therefore, we do not have control of the subsidiary and did not consolidate in our financial statements. PBI Europe did not have any operations in 2016 or in 2015.

Patents

PBI has 14 United States granted patents and 1 foreign granted patent (Japan: 5587770, EXTRACTION AND PARTITIONING OF MOLECULES) covering multiple applications of PCT in the life sciences field. PBI also has 19 pending patents in the USA, Canada, Europe, Australia, China, and Taiwan PCT employs a unique approach that we believe has the potential for broad use in a number of established and emerging life sciences areas, which include, but are not limited to:

- biological sample preparation – including but not limited to sample extraction, homogenization, and digestion - in such study areas as genomic, proteomic, lipidomic, metabolomic and small molecule;
- pathogen inactivation;
- protein purification;

- control of chemical reactions, particularly enzymatic; and
- immunodiagnostics.

We are also the exclusive distributor, throughout the Americas, for CS cell disruption equipment, parts, and consumables. CS, a British company located several hours northwest of London, England, has been providing niche biomedical equipment, related consumable products, and services to a global client base since 1989. CS designs, develops, and manufactures high pressure cell disruption equipment required by life sciences laboratories worldwide, particularly disruption systems for the extraction of proteins. The CS equipment provides a constant and controlled cell disruptive environment, giving the user superior, constant, and reproducible results whatever the application. CS has over 900 units installed in over 40 countries worldwide. The CS cell disruption equipment has proven performance in the extraction of cellular components, such as protein from yeast, bacteria, mammalian cells, and other sample types.

The CS pressure-based cell disruption equipment and our PCT-based instrumentation complement each other in several important ways. While both the CS and our technologies are based on high pressure, each product line has fundamental scientific capabilities that the other does not offer. Our PCT Platform uses certain patented pressure mechanisms to achieve small-scale, molecular level effects. CS's technology uses different, proprietary pressure mechanisms for larger-scale, non-molecular level processing. In a number of routine laboratory applications, such as protein extraction, both effects can be critical to success. Therefore, for protein extraction and a number of other important scientific applications, we believe laboratories will benefit by using the CS and our products, either separately or together.

Primary Fields of Use and Application for PCT

Sample preparation is widely regarded as a significant impediment to research and discovery and sample extraction is generally regarded as one of the key parts of sample preparation. The process of preparing samples for genomic, proteomic, lipidomic, and small molecule studies includes a crucial step called sample extraction or sample disruption. This is the process of extracting biomolecules such as nucleic acid i.e., DNA and/or RNA, proteins, lipids, or small molecules from the plant or animal cells and tissues that are being studied. Our current commercialization efforts are based upon our belief that pressure cycling technology provides a superior solution for sample extraction when compared to other available technologies or procedures and thus might significantly improve the quality of sample preparation, and thus the quality of the test result.

Within the broad field of biological sample preparation, in particular sample extraction, we focus the majority of our PCT and constant pressure ("CP") product development efforts in three specific areas: biomarker discovery (primarily through mass spectrometric analysis), forensics and histology. We believe that our existing PCT and CP-based instrumentation and related consumable products fill an important and growing need in the sample preparation market for the safe, rapid, versatile, reproducible and quality extraction of nucleic acids, proteins, lipids, and small molecules from a wide variety of plant, animal, and microbiological cells and tissues.

Biomarker Discovery - Mass Spectrometry

A biomarker is any substance (e.g., protein, DNA) that can be used as an indicator of the presence or absence of a particular disease-state or condition, and/or to measure the progression and effects of therapy. Biomarkers can help in the diagnosis, prognosis, therapy, prevention, surveillance, control, and cure of diseases and medical conditions.

A mass spectrometer is a laboratory instrument used in the analysis of biological samples, often focused on proteins, in life sciences research. It is frequently used to help discover biomarkers. According to a recently published market report by Transparency Market Research, "Spectrometry Market (Atomic, Molecular and Mass Spectrometry) - Global Scenario, Trends, Industry Analysis, Size, Share & Forecast 2011 – 2017," the global spectrometry market was worth \$10.2 billion in 2011 and is expected to reach \$15.2 billion in 2017, growing at a compound annual growth rate of 6.9% from 2011 to 2017. In the overall global market, the North American market is expected to maintain its lead position in terms of revenue until 2017 and is expected to have approximately 36.2% of the market revenue share in 2017, followed next by Europe. We believe PCT and CP-based products offer significant advantages in speed and quality compared with current techniques used in the preparation of samples for mass spectrometry analysis.

Forensics

The detection of DNA has become a part of the analysis of forensic samples by laboratories and criminal justice agencies worldwide in their efforts to identify the perpetrators of violent crimes and missing persons. Scientists from the University of North Texas and Florida International University have reported improvements in DNA yield from forensic samples (e.g., bone and hair) when using the PCT platform in the sample preparation process. We believe that PCT may be capable of differentially extracting DNA from sperm cells and female epithelial cells captured in swabs collected from rape victims and subsequently stored in rape kits. We also believe that there are many completed rape kits that remain untested for reasons such as cost, time and quality of results. We further believe that the ability to differentially extract DNA from sperm and not epithelial cells could reduce the cost of such testing, while increasing the quality, safety and speed of the testing process.

Histology

The most commonly used technique worldwide for the preservation of cancer and other tissues for subsequent pathology evaluation is FFPE. We believe that the quality and analysis of FFPE tissues is highly problematic, and that PCT offers significant advantages over current processing methods, including standardization, speed, biomolecule recovery, and safety.

Our customers include researchers at academic laboratories, government agencies, biotechnology companies, pharmaceutical companies and other life science institutions in the United States, Europe, and in Asia. Our goal is to continue aggressive market penetration in these target groups. We also believe that there is a significant opportunity to sell and/or lease additional Barocycler® instrumentation to additional laboratories at current customer institutions.

If we are successful in commercializing PCT in applications beyond our current focus area of genomic, proteomic, lipidomic, and small molecule sample preparation, and if we are successful in our attempts to attract additional capital, our potential customer base could expand to include hospitals, reference laboratories, pharmaceutical manufacturing plants and other sites involved in each specific application. If we are successful in forensics, our potential customers could be forensic laboratories, military and other government agencies. If we are successful in histology (extraction of biomolecules from FFPE tissues), our potential customers could be pharmaceutical companies, hospitals, and laboratories focused on drug discovery or correlation of disease states.

We have experienced negative cash flows from operations with respect to our pressure cycling technology business since our inception. As of March 31, 2017, we did not have adequate working capital resources to satisfy our current liabilities and as a result we have substantial doubt about our ability to continue as a going concern. Based on our current projections, including equity financing subsequent to March 31, 2017, we believe we will have the cash resources that will enable us to continue to fund normal operations into the foreseeable future.

The audit report issued by our independent registered public accounting firm on our audited consolidated financial statements for the fiscal year ended December 31, 2016, contains an explanatory paragraph regarding our ability to continue as a going concern. The audit report issued by our independent registered public accounting firm for our financial statements for the fiscal year ended December 31, 2016 states that our auditing firm has substantial doubt in our ability to continue as a going concern due to the risk that we may not have sufficient cash and liquid assets to cover our operating and capital requirements for the next twelve-month period; and, if sufficient cash cannot be obtained, we would have to substantially alter, or possibly even discontinue, operations. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

The conditions described above could adversely affect our ability to obtain additional financing on favorable terms, if at all, and may cause investors to have reservations about our long-term prospects, and may adversely affect our relationships with customers. There can be no assurance that our auditing firm will not issue the same opinion in the future. If we cannot successfully continue as a going concern, our stockholders may lose their entire investment in us.

Results of Operations

Comparison for the three months ended March 31, 2017 and 2016

Revenue

We recognized total revenue of \$551,357 for the three months ended March 31, 2017 as compared to \$510,478 during the three months ended March 31, 2016, an increase of \$40,879, or 8%. This increase is attributable to increases in the sales of our products and services as detailed below.

Products, Services, Other. Revenue from the sale of products and services increased 16% to \$525,998 for the three months ended March 31, 2017 as compared to \$454,350 during the three months ended March 31, 2016. This increase was primarily attributable to an increase in the sale of instrument systems. Sales of consumables also increased for the three months ended March 31, 2017 to \$63,264 compared to \$44,234 during the same period in the prior year, an increase of 43%.

Grant Revenue. During the three months ended March 31, 2017, we recorded grant revenue of \$25,359 compared to grant revenue of \$56,128 in the comparable period in 2016. Work on the \$1.05 million NIH grant decreased during the first quarter but we expect an increase in grant work later in the year.

Cost of Products and Services

The cost of products and services was \$235,997 for the three months ended March 31, 2017 compared to \$221,699 for the comparable period in 2016. The cost of products and services increased with the concomitant increase in the sales of instrument systems and consumables. Gross profit margin on products and services increased to 55% for the three months ended March 31, 2017, as compared to 51% for the prior period.

Research and Development

Research and development expenditures were \$263,456 during the three months ended March 31, 2017 as compared to \$335,270 in the same period in 2016, a decrease of \$71,814, or 21%. The prior period included company funded independent research activities in the development of an improved rape kit while the current period had decreased employee related costs.

Research and development expense recognized in the three months ended March 31, 2017 and 2016 included \$15,970 and \$20,381 of non-cash, stock-based compensation expense, respectively.

Selling and Marketing

Selling and marketing expenses increased to \$213,009 for the three months ended March 31, 2017 from \$191,236 for the comparable period in 2016, an increase of \$21,773, or 11%. This increase is primarily attributable to expansion of the company's sales force by two individuals and recruitment fees.

During the three months ended March 31, 2017 and 2016, selling and marketing expense included \$10,886 and \$12,690 of non-cash, stock-based compensation expense, respectively.

General and Administrative

General and administrative costs totaled \$837,998 for the three months ended March 31, 2017 as compared to \$808,218 for the comparable period in 2016, an increase of \$29,780, or 4%. The prior period activity included credits received from charges incurred with a former professional service provider.

During the three months ended March 31, 2017 and 2016, general and administrative expense included \$47,673 and \$68,391 of non-cash, stock-based compensation expense, respectively.

Operating Loss

Our operating loss was \$999,103 for the three months ended March 31, 2017 as compared to \$1,045,945 for the comparable period in 2016, a decrease of \$46,842 or 4%. This decrease was primarily due to decreases in expenditures in R&D combined with increases in product sales, as described above.

Other Income (Expense), Net

Interest (Expense) Income

Interest expense was \$1,526,632 for the three months ended March 31, 2017 as compared to interest expense of \$835,144 for the three months ended March 31, 2016. Interest expense reflected amortization of debt discounts related primarily to the sale of senior secured convertible debentures. The increase is from deferred finance charges on new convertible loans.

Change in fair value of warrant derivative liability

During the three months ended March 31, 2017, we recorded non-cash expense of \$1,333,407 for warrant revaluation in our consolidated statements of operations due to an increase in the fair value of the warrant liability related to warrants issued in our private placement offerings. We recorded \$1,217,722 non-cash income in the prior comparable period. This increase in fair value was primarily due to the increase in price of the Company's common stock at March 31, 2017 as compared to the price on March 31, 2016. The components for determining the fair value of the warrants are contained in the table in Note 4 of the accompanying consolidated financial statements.

Change in fair value of conversion option liability

During the three months ended March 31, 2017, we recorded non-cash income of \$1,728,345 for conversion option revaluation expense in our consolidated statements of operations due to an increase in the fair value of the conversion option liability related to convertible debt. This increase in fair value was primarily due to the increase in price of the Company's common stock on March 31, 2017 as compared to the price on March 31, 2016 or the date the debt was incurred during the quarter and the shorter time to maturity of the debt. For the three months ended March 31, 2016 we recorded non-cash income \$2,850,668 for conversion option liability revaluation. The components for determining the fair value of the conversion option liabilities are contained in the table in Note 4 of the accompanying consolidated financial statements.

Other Expense

Other Expense totaled \$959 for the three months ended March 31, 2017 as compared to \$912 for the comparable period in 2016.

Comparison for the year ended December 31, 2016 and 2015

Revenue

We had total revenue of \$1,976,487, in the year ended December 31, 2016 as compared with \$1,797,691 in the prior year, a 10% increase. The increase was due to product sales growth.

Products, Services, and Other. Revenue from the sale of products and services was \$1,794,749 in the year ended December 31, 2016 compared with \$1,409,991 in the year ended December 31, 2015, a 27% increase. Revenue included sales of both PBI and CS's pressure-based products. Sales of instrumentation increased in 2016 by \$369,909, or 44%, from \$835,611 for fiscal year 2015 to \$1,205,520 for fiscal year 2016. Sales of consumables were \$199,873 for the year ended December 31, 2016 compared to \$146,408 for the same period in 2015, an increase of \$53,465 or 37%. Products, Services, and Other Revenue included \$63,956 from non-cash transactions in the current year while the prior year included non-cash transactions of \$78,743. Revenue from non-cash transactions was recognized on the fair value of the assets involved per ASC 845.

Grant Revenue. During 2016, we recorded \$181,738 of grant revenue as compared with \$387,700 in 2015. In December 2014, the Company was awarded a \$1,020,969 SBIR Phase II grant (2R44HG007136) from the National Human Genome Research Institute of the NIH. Entitled “High Pressure Sample Preparation Instrumentation for DNA Sequencing”, this grant is helping to fund the development of an automated, high-throughput, high pressure system (instrument and consumables) to enable significantly better control of DNA fragmentation - a critical step in the preparation of samples for Next Generation Sequencing platforms. This system will be based on significant technological advancements over the classic hydrodynamic DNA shearing approach that has been successfully and widely used in the field of DNA sequencing for many years.

Cost of Products and Services

The cost of products and services was \$834,012 for the year ended December 31, 2016, compared with \$609,054 in 2015. Our gross profit margin on products and services was 58% for fiscal year 2016 vs. 66% for fiscal year 2015. The current year margin was affected by the transfer of personnel to operations from sales and marketing. The relationship between the cost of products and services and revenue depends greatly on the mix of instruments we sell, the quantity of such instruments, and the mix of consumable products and instrument accessories that we sell in a given period.

Research and Development

Research and development expenditures were \$1,183,011 for 2016 compared to \$1,105,295 in 2015, an increase of \$77,716 or 7%. This increase resulted primarily from the addition of a Ph.D. level electrical engineer, costs related to the continued development of an enhanced rape kit test based on the PCT Platform, and a rent increase related to additional R&D space. Research and development expense also included \$65,500 and \$50,617 of non-cash, stock-based compensation in 2016 and 2015, respectively.

Selling and Marketing

Selling and marketing expenses were \$872,365 in 2016 compared to \$745,574 in 2015, an increase of \$126,791, or 17%. This increase is primarily attributed to an increase in employee staffing, collaboration activities, and rental space for product demonstrations. Selling and marketing expense included \$42,314 and \$32,704 of non-cash stock based compensation expense in 2016 and 2015, respectively.

General and Administrative

General and administrative costs were \$2,822,752 in the year ended December 31, 2016, as compared with \$2,902,950 in 2015, a decrease of \$80,198 or 3%. This decrease was due primarily to credits received from charges incurred with a former professional service provider offset by additional stock-based compensation. During the years ended December 31, 2016 and 2015, general and administrative expense included \$272,150 and \$125,668 of non-cash, stock-based compensation expense, respectively.

Operating Loss

Our operating loss was \$3,735,653 for the year ended December 31, 2016 as compared to \$3,565,182 for the prior year, an increase of \$170,471 or 5%. This increase in operating loss was due primarily to increases in R&D and Sales and Marketing expenses, off-set to a certain extent by an increase in total revenue.

Other income (expense), net

Interest Expense. Net interest expense totaled \$4,501,186 for the year ended December 31, 2016 as compared to interest expense of \$4,146,416 for the year ended December 31, 2015. In connection with loans issued in 2015 and 2016, we are amortizing deferred financing costs and imputed interest against the debt discount on loans.

Other income (expense) net

We recognized \$1,112 in expense during 2016, compared to \$36,879 of expense from the initial fair value calculation on the conversion option on our convertible debt instruments in 2015.

Impairment loss on investment

The value of our investment in the common stock of Everest Investments Holdings S.A. (“Everest”) has declined since the date of receipt of the stock in 2015. We evaluated the decline and considered it as an “other than temporary impairment” reduction. Thus, the impairment loss was recognized as a charge in the consolidated statements of operations. During 2016, we recorded total impairment losses related to \$373,682 which represented the reduction in value of these securities.

Gain on extinguishment of embedded derivative liabilities

In connection with full payments of convertible debt, we recorded non-cash gains of \$2,555,180 on short-term loans relating to the conversion options issued with the loans in 2015.

Change in fair value of derivative liabilities

During the year ended December 31, 2016, we recorded non-cash income of \$5,904,649 from warrant and conversion option liability revaluations in our consolidated statements of operations due to a decrease in the fair value of the derivative warrants and the conversion option liabilities on our debt. This decrease in fair value was primarily due to a decrease in the price per share of our common stock. During the year ended December 31, 2015, we recorded non-cash charges of \$2,222,001 for warrant and conversion option liability revaluations due to an increase in fair value of the liabilities.

Income Taxes

We did not record an income tax benefit or provision for the years ended December 31, 2016 or 2015.

Net Loss

During the year ended December 31, 2016, we recorded a net loss applicable to common stockholders of \$2,706,984 or \$(3.00) per share, as compared with \$7,438,492 or \$(10.80) per share during the year ended December 31, 2015. This decrease in net loss is primarily attributable to the current year non-cash income from warrant and conversion option liability revaluations.

LIQUIDITY AND CAPITAL RESOURCES

We have experienced negative cash flows from operations with respect to our pressure cycling technology business since our inception. As of March 31, 2017, we did not have adequate working capital resources to satisfy our current liabilities. We have been successful in raising cash through debt and equity offerings in the past. During the three months ended March 31, 2017 we received \$1,840,750 of net proceeds from additional convertible and non-convertible debt. We also received \$514,792 net proceeds from loans subsequent to March 31, 2017 through June 10, 2017. We have efforts in place to continue to raise cash through debt and equity offerings.

We will need substantial additional capital to fund our operations in future periods. In the event that we are unable to obtain financing on acceptable terms, or at all, we will likely be required to cease our operations, pursue a plan to sell our operating assets, or otherwise modify our business strategy, which could materially harm our future business prospects.

Net cash used in operations for the three months ended March 31, 2017 was \$1,165,410 as compared to \$1,233,458 for the three months ended March 31, 2016. We had a lower operating loss in the current period offset by additional interest expense.

Net cash used in investing activities for the three months ended March 31, 2017 totaled \$15,608 compared to none in the prior period. Cash capital expenditures included laboratory equipment and IT equipment.

Net cash provided by financing activities for the three months ended March 31, 2017 was \$1,164,093 as compared to \$1,210,062 for the same period in the prior year. The cash from financing activities in the period ending March 31, 2017 included \$920,000 from our Revolving Note. We also received \$773,000 from non-convertible debt, net of fees, less payment on non-convertible debt of \$228,907. The prior period included proceeds from senior secured convertible debt.

Net cash used in operating activities was \$3,805,851 for the year ended December 31, 2016 as compared with \$3,819,746 for the year ended December 31, 2015. Our accounts payable balance was \$407,249 as of December 31, 2016, as compared with \$941,389 as of December 31, 2015, a decrease of 57% from 2015. Accounts payable should continue to become more current as we continue to secure more capital and funds from operations; this should allow for more timely payments to our vendors.

We invested \$7,203 in fixed assets during the year ended December 31, 2016 as compared with \$9,412 investment in fixed assets in the prior year.

Net cash provided by financing activities for the year ended December 31, 2016 was \$3,834,634 as compared with \$3,471,993 in the prior year.

In 2016,

- A \$2,105,420 in aggregate net proceeds were raised from sales of convertible debentures and \$107,000 payments were made for convertible debt.
- B Loans in the aggregate amount of \$1,022,784 were received during the year and we made payments on new and existing debt of \$947,702.
- C From August 29 through December 31, 2016, we completed five tranches of a private placement, pursuant to which we sold and issued an aggregate of 50,833 shares of common stock, with a purchase price of \$12.00 per share, resulting in net proceeds to us of \$530,965.
- D \$1,133,500 in aggregate net proceeds were drawn down from a revolving note facility.
- E \$116,667 net proceeds were received from related party debt and we made payments of \$20,000.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as of December 31, 2016 and December 31, 2015.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

While our significant accounting policies are more fully described in Note 3 to our audited financial statements appearing elsewhere in this prospectus, we believe that the following accounting policies are the most critical for fully understanding and evaluating our financial condition and results of operations.

Use of Estimates

To prepare our consolidated financial statements in conformity with accounting principles generally accepted in the United States of America, we are required to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. In addition, significant estimates were made in projecting future cash flows to quantify impairment of assets, deferred tax assets, the costs associated with fulfilling our warranty obligations for the instruments that we sell, and the estimates employed in our calculation of fair value of stock options awarded. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from the estimates and assumptions used.

Revenue Recognition

We recognize revenue in accordance with FASB ASC 605, *Revenue Recognition*. Revenue is recognized when realized or when realizable and earned when all the following criteria have been met: persuasive evidence of an arrangement exists; goods were shipped, delivery of service has occurred and risk of loss has passed to the customer; the seller's price to the buyer is fixed or determinable; and collectability is reasonably assured.

Our current Barocycler® instruments require a basic level of instrumentation expertise to set-up for initial operation. To support a favorable first experience for our customers, upon customer request, and for an additional fee, will send a highly trained technical representative to

the customer site to install Barocycler®s that we sell, lease, or rent through our domestic sales force. The installation process includes uncrating and setting up the instrument, followed by introductory user training. Product revenue related to current Barocycler® instrumentation and Constant Systems products is recognized upon shipment of the unit. In the case where the customer requests installation and training, the additional revenue related to the installation and training is recognized upon the completion of the installation and introductory training process of the instrumentation at the customer location. Product revenue related to sales of PCT instrumentation to our foreign distributors is recognized upon shipment through a common carrier. We provide for the expected costs of warranty upon the recognition of revenue for the sales of our instrumentation. Our sales arrangements do not provide our customers with a right of return. Product revenue related to our consumable products such as PULSE® Tubes, MicroTubes, and application specific kits is recorded upon shipment through a common carrier. Shipping costs are included in sales and marketing expense. Any shipping costs billed to customers are recognized as revenue.

We apply ASC 845, “Accounting for Non-Monetary Transactions”, to account for products and services sold through non-cash transactions based on the fair values of the products and services involved, where such values can be determined. Non-cash exchanges would require revenue to be recognized at recorded cost or carrying value of the assets or services sold if any of the following conditions apply:

- a) The fair value of the asset or service involved is not determinable.
- b) The transaction is an exchange of a product or property held for sale in the ordinary course of business for a product or property to be sold in the same line of business to facilitate sales to customers other than the parties to the exchange.
- c) The transaction lacks commercial substance.

We currently record revenue for its non-cash transactions at recorded cost or carrying value of the assets or services sold.

In accordance with FASB ASC 840, *Leases*, we account for our lease agreements under the operating method. We record revenue over the life of the lease term and we record depreciation expense on a straight-line basis over the thirty-six month estimated useful life of the Barocycler® instrument. The depreciation expense associated with assets under lease agreement is included in the “Cost of PCT products and services” line item in our accompanying consolidated statements of operations. Many of our lease and rental agreements allow the lessee to purchase the instrument at any point during the term of the agreement with partial or full credit for payments previously made. We pay all maintenance costs associated with the instrument during the term of the leases.

Revenue from government grants is recorded when expenses are incurred under the grant in accordance with the terms of the grant award.

Revenue from the sale of CS’ cell disruption equipment, parts, and consumables is recognized when products are shipped.

Deferred revenue represents amounts received from grants and service contracts for which the related revenues have not been recognized because one or more of the revenue recognition criteria have not been met. Revenue from service contracts is recorded ratably over the length of the contract.

Our transactions sometimes involve multiple elements i.e., products and services. Revenue under multiple element arrangements is recognized in accordance with FASB ASC 605-25 *Multiple-Element Arrangements (“ASC 605”)*. When vendor specific objective evidence or third party evidence of selling price for deliverables in an arrangement cannot be determined, we Company develop a best estimate of the selling price to separate deliverables, and allocates arrangement consideration using the relative selling price method. Additionally, this guidance eliminates the residual method of allocation. If an arrangement includes undelivered elements that are not essential to the functionality of the delivered elements, we defer the fair value of the undelivered elements with the residual revenue allocated to the delivered elements. Fair value is determined based upon the price charged when the element is sold separately. If there is not sufficient evidence of the fair value of the undelivered elements, no revenue is allocated to the delivered elements and the total consideration received is deferred until delivery of those elements for which objective and reliable evidence of the fair value is not available. We provide certain customers with extended service contracts with revenue recognized ratably over the life of the contract.

Warrant Derivative Liability

The warrants issued in November 2011 in connection with the registered direct offering of Series D Convertible Preferred Stock (the “Series D Warrants”) and the warrants issued in 2015 and 2016 in connection with the \$6.3 million PIPE convertible debentures (the “Debenture Warrants”) are measured at fair value and liability-classified because the Series D Warrants Debenture Warrants contained “down-round protection” and therefore, did not meet the scope exception for treatment as a derivative under ASC 815, *Derivatives and Hedging*. Since “down-round protection” is not an input into the calculation of the fair value of the warrants, the warrants cannot be considered indexed to the Company’s own stock which is a requirement for the scope exception as outlined under ASC 815. The estimated fair value of the warrants was determined using the binomial model, resulting in an allocation of the gross proceeds of \$283,725 to the warrants issued in the Series D registered direct offering.

In connection with the sale of convertible debentures in 2015 and 2016, the estimated fair value of the warrants was determined using the binomial model, resulting in an allocation of the gross proceeds of \$2,847,624 to the warrants issued with convertible debentures. The fair value will be affected by changes in inputs to that model including our stock price, expected stock price volatility, the contractual term, and the risk-free interest rate. We will continue to classify the fair value of the warrants as a liability until the warrants are exercised, expire or are amended in a way that would no longer require these warrants to be classified as a liability, whichever comes first.

The down-round protection for the Debenture Warrants and Series D Warrants survives for the life of the Warrants. The down-round protection for the Series D Warrants ends in May 2017.

Conversion Option Liability

We have signed convertible notes and have determined that conversion options are embedded in the notes and it is required to bifurcate the conversion option from the host contract under ASC 815 and account for the derivatives at fair value. The estimated fair value of the conversion options was determined using the binomial model. The fair value of the conversion options will be classified as a liability until the debt is converted by the note holders or paid back by the Company. The fair value will be affected by changes in inputs to that model including our stock price, expected stock price volatility, the contractual term, and the risk-free interest rate. We will continue to classify the fair value of the conversion options as a liability until the conversion options are exercised, expire or are amended in a way that would no longer require these conversion options to be classified as a liability, whichever comes first. We have adopted a sequencing policy that reclassifies contracts (from equity to liabilities) with the most recent inception date first. Thus any available shares are allocated first to contracts with the most recent inception dates.

Accounts Receivable and Allowance for Doubtful Accounts

We maintain allowances for estimated losses resulting from the inability of our customers to make required payments. Judgments are used in determining the allowance for doubtful accounts and are based on a combination of factors. Such factors include historical collection experience, credit policy and specific customer collection issues. In circumstances where we are aware of a specific customer's inability to meet its financial obligations to us (e.g., due to a bankruptcy filing), we record a specific reserve for bad debts against amounts due to reduce the net recognized receivable to the amount we reasonably believe will be collected. We perform ongoing credit evaluations of our customers and continuously monitor collections and payments from our customers. While actual bad debts have historically been within our expectations and the provisions established, we cannot guarantee that we will continue to experience the same bad debt rates that we have in the past. A significant change in the liquidity or financial position of any of our customers could result in the uncollectability of the related accounts receivable and could adversely impact our operating cash flows in that period.

Inventories

Inventories are valued at the lower of cost (average cost) or market (sales price). The cost of Barocyclers consists of the cost charged by the contract manufacturer. The cost of manufactured goods includes material, freight-in, direct labor, and applicable overhead. In assessing the ultimate realization of inventories, management judgment is required to determine the reserve for obsolete or excess inventory. Inventory on hand may exceed future demand either because the product is obsolete, or because the amount on hand is more than can be used to meet future needs. We provide for the total value of inventories that we determine to be obsolete or excess based on criteria such as customer demand and changing technologies. We historically have not experienced significant inaccuracies in computing our reserves for obsolete or excess inventory.

Equity Transactions

We evaluate the proper classification of our equity instruments that embody an unconditional obligation requiring the issuer to redeem it by transferring assets at a determinable date or that contain certain conditional obligations, typically classified as equity, be classified as a liability. We record financing costs associated with our capital raising efforts in our statements of operations. These include amortization of debt issue costs such as cash, warrants and other securities issued to finders and placement agents, and amortization of preferred stock discount created by in-the-money conversion features on convertible debt and allocates the proceeds amongst the securities based on relative fair values or based upon the residual method. We based our estimates and assumptions on the best information available at the time of valuation; however, changes in these estimates and assumptions could have a material effect on the valuation of the underlying instruments.

Stock-Based Compensation

We account for employee and non-employee director stock-based compensation using the fair value method of accounting. Compensation cost arising from stock options to employees and non-employee directors is recognized using the straight-line method over the vesting period, which represents the requisite service or performance period. The calculation of stock-based compensation requires us to estimate several factors, most notably the term, volatility and forfeitures. We estimate the option term using historical terms and estimate volatility based on historical volatility of our common stock over the option's expected term. Expected forfeitures based on historical forfeitures are used in calculating the expense related to stock-based compensation associated with stock awards. Our estimates and assumptions are based on the best information available at the time of valuation; however, changes in these estimates and assumptions could have a material effect on the valuation of the underlying instruments.

BUSINESS

We were incorporated in the Commonwealth of Massachusetts in August 1978 as Boston Biomedica, Inc. In September 2004, we completed the sale of Boston Biomedica's core business units and began to focus exclusively on the development and commercialization of the PCT platform. Following this change in business strategy, Boston Biomedica, Inc.'s name was changed to Pressure BioSciences, Inc. Operations began as PBI in February 2005, research and development activities in April 2006, early marketing and selling activities of our initial Barocycler® instrument in late 2007, and earnest marketing and selling of our PCT-based instrument platform in 2012.

During its early development, under the legacy business of Boston Biomedica, Inc., our scientists were researching and developing applications of the PCT platform in many areas of the life sciences, including proteomics, genomics, lipidomics, and small molecule sample preparation. The data generated during these early years, combined with the data generated since we began focusing on PCT operations in February 2005, form the basis of knowledge that we believe will allow us to successfully commercialize the PCT platform both within and outside of the sample preparation market.

We are focused on solving the challenging problems inherent in biological sample preparation, a crucial laboratory step performed by scientists worldwide working in biological life sciences research. Sample preparation is a term that refers to a wide range of activities that precede most forms of scientific analysis. Sample preparation is often complex, time-consuming and, in our belief, one of the most error-prone steps of scientific research. It is a widely-used laboratory undertaking – the requirements of which drive what we believe is a large and growing worldwide market. We have developed and patented a novel, enabling technology platform that can control the sample preparation process. It is based on harnessing the unique properties of high hydrostatic pressure. This process, called PCT, uses alternating cycles of hydrostatic pressure between ambient and ultra-high levels i.e., 20,000 psi or greater to safely, conveniently and reproducibly control the actions of molecules in biological samples, such as cells and tissues from human, animal, plant and microbial sources.

PCT is an enabling platform technology based on a physical process that had not previously been used to control bio-molecular interactions. PCT uses internally developed instrumentation that is capable of cycling pressure between ambient and ultra-high levels at controlled temperatures and specific time intervals, to rapidly and repeatedly control the interactions of bio-molecules, such as proteins, DNA, RNA, lipids and small molecules. Our laboratory instrument family, the Barocycler®, and our internally developed consumables product line, which include our unique MicroTubes, MicroCaps, MicroPestles, BaroFlex and PULSE® (Pressure Used to Lyse Samples for Extraction) Tubes, and application specific kits (containing consumable products and reagents), together make up our PCT SPS.

In 2015, together with an investment bank, we formed a subsidiary called Pressure BioSciences Europe ("PBI Europe") in Poland. We have 49% ownership interest with the investment bank retaining 51%. PBI Europe did not have any operating activities in 2016 and we cannot reasonably predict when operations will commence. Because we don't have control of the subsidiary, we did not consolidate them in our financial statements.

Patents

PBI has 14 United States granted patents and 1 foreign granted patent (Japan: 5587770, EXTRACTION AND PARTITIONING OF MOLECULES) covering multiple applications of PCT in the life sciences field. PBI also has 19 pending patents in the USA, Canada, Europe, Australia, China, and Taiwan PCT employs a unique approach that we believe has the potential for broad use in a number of established and emerging life sciences areas, which include, but are not limited to:

- biological sample preparation – including but not limited to sample extraction, homogenization, and digestion - in such study areas as proteomics, genomics, lipidomics, metabolomics, and small molecules;
- pathogen inactivation;

- protein purification;
- control of chemical reactions, particularly enzymatic;
- immunodiagnosics.

Primary Fields of Use and Applications for PCT

Sample preparation is widely regarded as a significant impediment to research and discovery and sample extraction is generally regarded as one of the key parts of sample preparation. The process of preparing samples for genomic, proteomic, lipidomic, and small molecule studies includes a crucial step called sample extraction or sample disruption. This is the process of extracting biomolecules such as nucleic acid i.e., DNA and/or RNA, proteins, lipids, or small molecules from the plant or animal cells and tissues that are being studied. Our current commercialization efforts are based upon our belief that pressure cycling technology provides a superior solution for sample extraction when compared to other available technologies or procedures and thus might significantly improve the quality of sample preparation, and thus the quality of the test result.

Within the broad field of biological sample preparation, in particular sample extraction, we focus the majority of our PCT and CP product development efforts in three specific areas: biomarker discovery (primarily through mass spectrometric analysis), forensics and histology. We believe that our existing PCT and CP-based instrumentation and related consumable products fill an important and growing need in the sample preparation market for the safe, rapid, versatile, reproducible and quality extraction of nucleic acids, proteins, lipids, and small molecules from a wide variety of plant, animal, and microbiological cells and tissues.

Biomarker Discovery - Mass Spectrometry

A biomarker is any substance (e.g., protein, DNA) that can be used as an indicator of the presence or absence of a particular disease-state or condition, and/or to measure the progression and effects of therapy. Biomarkers can help in the diagnosis, prognosis, therapy, prevention, surveillance, control, and cure of diseases and medical conditions.

A mass spectrometer is a laboratory instrument used in the analysis of biological samples, often focused on proteins, in life sciences research. It is frequently used to help discover biomarkers. According to a recently published market report by Transparency Market Research, "Spectrometry Market (Atomic, Molecular and Mass Spectrometry) - Global Scenario, Trends, Industry Analysis, Size, Share & Forecast 2011 – 2017," the global spectrometry market was worth \$10.2 billion in 2011 and is expected to reach \$15.2 billion in 2017, growing at a compound annual growth rate of 6.9% from 2011 to 2017. In the overall global market, the North American market is expected to maintain its lead position in terms of revenue until 2017 and is expected to have approximately 36.2% of the market revenue share in 2017, followed next by Europe. We believe PCT and CP-based products offer significant advantages in speed and quality compared with current techniques used in the preparation of samples for mass spectrometry analysis.

Forensics

The detection of DNA has become a part of the analysis of forensic samples by laboratories and criminal justice agencies worldwide in their efforts to identify the perpetrators of violent crimes and missing persons. Scientists from the University of North Texas and Florida International University have reported improvements in DNA yield from forensic samples (e.g., bone and hair) when using the PCT platform in the sample preparation process. We believe that PCT may be capable of differentially extracting DNA from sperm cells and female epithelial cells captured in swabs collected from rape victims and subsequently stored in rape kits. We also believe that there are many completed rape kits that remain untested for reasons such as cost, time and quality of results. We further believe that the ability to differentially extract DNA from sperm and not epithelial cells could reduce the cost of such testing, while increasing the quality, safety and speed of the testing process.

Histology

The most commonly used technique worldwide for the preservation of cancer and other tissues for subsequent pathology evaluation is FFPE. We believe that the quality and analysis of FFPE tissues is highly problematic, and that PCT offers significant advantages over current processing methods, including standardization, speed, biomolecule recovery, and safety.

Other Fields of Use and Applications for PCT

Our research and development efforts have shown that, in addition to genomic, proteomic, lipidomic, and small molecule sample preparation, PCT is potentially beneficial in a number of other areas of the life sciences, including pathogen inactivation, protein purification, control of chemical (particularly enzymatic) reactions, and immunodiagnostics. Other applications in the sample preparation market include forensics and histology, as discussed above. Our pursuit of these markets, however, depends on a number of factors, including our success in commercializing PCT in the area of sample preparation, our judgment regarding the investment required to be successful in these areas, the value of these markets to PBI, and the availability of sufficient financial resources. Below is a brief explanation of each of these additional potential applications and a short description of why we believe PCT can be used to improve scientific studies in these areas.

Pathogen Inactivation

Biological products intended for human use, such as blood, vaccines and drugs, are put through rigorous processing protocols in an effort to minimize the potential of that product to transmit disease. These protocols may include methods to remove infectious materials such as pre-processing testing, filtration or chromatography, or methods to inactivate infectious agents that are not captured in the removal steps such as pasteurization, irradiation and solvent detergent inactivation. Notwithstanding current diligence in both the removal and inactivation steps, significant concern remains that some pathogens (e.g., bacteria and viruses) capable of transmitting infection to recipients may not be removed or inactivated with current procedures. In addition, some removal and inactivation methods may not be useful because of cost, safety, ease-of-use or other practical concerns. To that end, we believe that a new inactivation method is needed that can safely, rapidly and inexpensively inactivate pathogens in blood, vaccines and drugs without the need for chemical or other potentially toxic additives. We believe we have successfully generated proof-of-concept that PCT can satisfy this need. We believe that compared with current procedures, a process that uses PCT has the potential to increase safety and yield, lower cost and decrease the potential side effects of current methods. We have been issued U.S. patents for this PCT-dependent inactivation technology.

Protein Purification

Many vaccines and drugs are comprised of proteins. These proteins need to be purified from complex mixtures as part of the manufacturing process. Current purification techniques often result in the loss of a significant amount of the protein. Therefore, any method that could increase the amount of protein being recovered in the purification step, could subsequently lead to a reduction in cost to the manufacturer. We believe we have successfully generated proof-of-concept that PCT can satisfy this need. We believe that compared with current purification procedures, a process that uses PCT has the potential to increase protein recovery, increase the quality of the product, and lower production costs. We have been issued U.S. and in this area.

Control of Chemical (Particularly Enzymatic) Reactions

Chemical reactions encompass many important interactions in nature. Methods used to control chemical reactions could have a positive effect on the quality, speed, and overall result of the reaction. The control and detection of chemical reactions is particularly useful in the biotechnology field for synthesizing and characterizing such molecules as nucleic acids and polypeptides. We believe that PCT offers distinct advantages in controlling chemical reactions over current methods, since PCT can provide precise, automated control over the timing and synchronization of chemical reactions, particularly enzymatic reactions. We have been issued U.S. patents in this area.

Many tests used in the clinical laboratory today are based on the formation of a complex between two proteins, such as an antigen and an antibody. Such “immunodiagnostic” methods are used for the detection of infectious agents such as the human immunodeficiency virus (“HIV”), hepatitis viruses, West Nile virus, and others, as well as for endocrine, drug testing and cancer diagnostics. We have generated proof-of-concept that PCT may be used to control biomolecular interactions between proteins, such as antigens and antibodies. We believe this capability may provide a greater degree of sensitivity and quantitative accuracy in immunodiagnostic testing than that offered by methods that are available today. We have been issued U.S. patents in this area.

Company Products

We believe our PCT and CP products allow researchers to improve scientific research studies in the life sciences field. Our products are developed with the expectation of meeting or exceeding the needs of research scientists while enhancing the safety, speed and quality that is available to them with existing sample preparation methods.

Current Barocycler® Instrumentation

Our current Barocycler® product line consists of laboratory instrumentation that subjects a sample to cycles of pressure from ambient to ultra-high levels (20,000 psi or greater) and then back to ambient, in a precisely controlled manner.

Our instruments (the 2320EXT, the Barozyme-HT48, the Barocycler® NEP3229, the HUB440 and the HUB880) use cycles of high, hydrostatic pressure to quickly and efficiently break up the cellular structures of a specimen to release proteins, nucleic acids, lipids and small molecules from the specimen into our consumable processing tubes, referred to as our PULSE® Tubes and MicroTubes. Our instruments have temperature control options (on-board heating or chilling and heating via external circulating water-bath), automatic fill and dispensing valves, and an integrated micro-processor keypad or a laptop computer. The microprocessor or laptop computer are capable of saving specific PCT protocols, so the researcher can achieve maximum reproducibility for the preparation of nucleic acids, proteins, lipids, or small molecules from various biological samples. Our Barocycler® instruments and our consumable products make up our PCT Sample Preparation System.

Barocycler® 2320EXTREME - The Barocycler® 2320EXT weighs approximately 80lbs, has a maximum pressure of 45,000 psi, and can process either up to 16 MicroTubes simultaneously or 1 PULSE® Tube. The working temperature range is 4 – 95°C and is controlled via an on-board electric heating jacket or external circulating water bath. All tests are entered and recorded on a touch screen interface. Information from each test run (pressure profile, cycle number, and temperature) is recorded and can be stored on the instrument, on a USB drive, or networked into the user’s lab. Pressure profiles can be manipulated in a number of ways, including static high pressure holds and pressure ramp programs. The Barocycler® 2320EXT is pneumatic, which requires an input air source of 100psi to reach and cycle at high pressure.

The Barocycler® 2320EXT was developed to support the PCT-HD/PCT-SWATH application. PCT-HD enables faster, less cumbersome and higher quality processing of biopsy tissues. With homogenization, extraction, and digestion of proteins occurring in a single PCT MicroTube under high pressure. This protocol can yield analytical results in under 4 hours from the start of processing tissues. PCT-HD was developed by our scientists and engineers in collaboration with Professor Ruedi Aebersold and Dr. Tiannan Guo of the Institute of Molecular Systems Biology, ETH Zurich, and the University of Zurich, both in Zurich, Switzerland. Drs. Aebersold and Guo combined PCT-HD with SCIEX’s SWATH-Mass Spectrometry – calling the resulting method “PCT-SWATH”.

Barocycler® NEP3229 – The Barocycler® NEP3229 contains two units – a user interface and a power source – comprised primarily of a 1.5 horsepower motor and pump assembly (hydraulic). Combined, the two components of the NEP3229 weigh approximately 350 pounds. The Barocycler® NEP3229 is capable of processing up to three samples simultaneously using our specially designed, single-use PULSE® Tubes and up to 48 samples simultaneously using our specially-designed MicroTubes.

Barozyme HT48 - The Barozyme HT48 is a high throughput, bench-top instrument designed for accelerated enzymatic digestion of proteins at high pressure. A typical protein digestion time using the enzyme trypsin (a common yet important laboratory procedure) can be reduced from often requiring an overnight incubation to get to completion to under one hour when the digestion procedure is carried out under PCT. The Barozyme HT48 uses an air-pressure-to-liquid-pressure proprietary intensifier system, with a pressure amplification ratio of 160:1, to reach an output pressure of 20,000 psi. The Barozyme HT48 is capable of processing up to 48 samples at a time in six single-use BaroFlex 8-well Strips in the Barozyme Sample Carrier. We have sold approximately six Barozyme HT48 units over the past several years. Based on feedback from our customers, and on expanded internal engineering and scientific capabilities, we have decided to make certain enhancements that we believe will make the instrument more versatile while increasing performance and ease-of-use. Some of the proceeds from the Offering will be used to make these changes. Consequently, we are only passively marketing the Barozyme HT48 at the present time. We believe such changes will cost approximately \$200,000 and will take 12-18 months to complete. We expect to aggressively market the upgraded instrument immediately following the completion of the upgrades.

Barocycler® HUB440 - We believe the Barocycler® HUB440 is the first portable, ready to use, “plug-and-play” high pressure generator for the laboratory bench. The Barocycler® HUB440 is capable of creating and controlling hydrostatic pressure from 500 psi to 58,000 psi. It is computer controlled and runs on software that was specially-written by us in LabVIEW (software from National Instruments Corporation). We own the rights and have a license to use the specialty LabVIEW software. We believe that over the coming years, the Barocycler® HUB440 may become the main instrument in our pressure-based instrument line. We have sold approximately 15 HUB440 units over the past several years. Based on feedback from our customers, and on expanded internal engineering and scientific capabilities, we have decided to make certain enhancements that we believe will make the instrument more versatile while increasing performance and ease-of-use. Some of the proceeds from the Offering will be used to make these changes. Consequently, we are only passively marketing the HUB440 at the present time. We believe such changes will cost approximately \$100,000 and will take three to six months to complete. We expect to aggressively market the upgraded instrument immediately following the completion of the upgrades.

Barocycler® HUB880 - The Barocycler® HUB880 is one of our new instruments; it is expected to be available for sale before the end of 2017. It is a compact, portable, bench-top, ultra-high pressure generator that uses an air pressure-to-liquid pressure intensifier allowing the user to generate fluid pressure as high as 90,000 psi with input air pressure of just 126 psi. The HUB880 can be operated through a simple front panel or controlled using an optional external Data Acquisition and Control Module for dynamic pressure control. We believe that the HUB880 will be well accepted by scientists that need to achieve super high pressure, such as those working in the food safety and vaccine industries.

Future Barocycler® Instrumentation (2019-2020)

XStreamPCT™ - The Barocycler XStreamPCT is an on-line, flow-through version of the Barocycler where sample loading and unloading can be carried out by conventional HPLC equipment. It is expected that this version will allow the research scientist to set up their sample preparation and then “walk away” for extended periods of time (e.g., overnight) as the XStreamPCT processes the entire batch of samples automatically and passes them on to downstream analytical steps. This instrument offers the promise to bring sample preparation to a previously unmatched level.

Ultra Shear Technology (UST) - UST is an emerging technology that utilizes intense fluid shear and instant heating achieved by specialized high pressure equipment to continuously produce commercially sterile, low acid, pumpable, homogeneous fluid products. This requires the inactivation of bacteria, bacterial spores and enzymes. UST also achieves energetic cellular disruption and fluid homogenization. Consequently, depending on operating conditions, nano-sized emulsions can be produced that have been shown to have improved shelf stability, flavor, and biological activity.

The Company has filed a patent on a low cost, scalable approach for production level product manufacturing. The Company believes this method can find use in various nanotechnology applications for pharmaceutical (e.g., drug delivery), biotechnology (e.g., protein recovery, biomolecule extraction), and food (e.g., shelf-stable “clean label” products) applications. We plan to design, develop, manufacture, and market a lab-scale UST-based instrument that we can sell direct to the life sciences and other industries. We also plan to develop a pilot plant scale UST-based instrument for demonstration in our expectation to license the technology to food companies worldwide.

Barocycler® Consumable Products

PCT MicroTubes - PCT MicroTubes are made from a unique fluoropolymer, fluorinated ethylene propylene (FEP). FEP is highly inert and retains its integrity within an extremely wide temperature range (-200°C to +100°C). MicroTubes hold a maximum total volume of 150 microliters. PCT MicroTubes must be used with either PCT-MicroCaps or PCT-MicroPestles.

PCT-MicroCaps - PCT MicroCaps are made from polytetrafluoroethylene (PTFE). The PCT MicroCaps are available in three sizes to accommodate total sample volume: 50, 100 and 150uL. 50uL MicroCaps are used with samples ≤50uL, 100uL MicroCaps are used with samples between 50-100uL, and 150uL MicroCaps are used with samples between 100-150uL.

PCT-Micro-Pestle - PCT μPestles are made from Polytetrafluoroethylene (PTFE), a synthetic fluoropolymer of tetrafluoroethylene, also known as Teflon (by DuPont Co). PTFE is practically inert; the only chemicals known to affect it are certain alkali metals and most highly-reactive fluorinating agents. PCT μPestles, in conjunction with PCT MicroTubes, are designed to enhance the extraction of protein, DNA, RNA and small molecules from minute amounts (0.5 – 3.0 mg) of solid tissue in extraction reagent volumes as low as 20-30 μL. PCT MicroTubes and PCT μPestles use Pressure Cycling Technology (PCT) to effectively disrupt soft tissues and lyse their cells. As a result, the tissue sample trapped between the MicroTube end and the μPestles tip is crushed on every pressure cycle. This mechanical action, combined with the extraction ability of the buffer under high pressure, results in highly effective tissue homogenization and extraction.

PCT μPestles and PCT MicroTubes, together with a PBI Barocycler®, comprise the PCT Micro-Pestle System, which provides a fast, safe, and efficient means of extraction from extremely small amounts of solid samples such as soft animal tissues or biopsies. The PCT μPestle

System can be used in any PBI Barocycler®.

BaroFlex 8-well Processing Strips - BaroFlex 8-well Strips are used in the Barozyme HT48 (for pressure-enhanced enzymatic digestion at 20,000 psi). BaroFlex 8-well Strips are made of special high density polyethylene (HDPE) and hold up to 140µl when capped with the BaroFlex Cap Strips or Mats. BaroFlex 8-Cap Strips and BaroFlex 24-Cap Mats are made of silicone. These single-use caps are designed to seal BaroFlex 8-well Strips tightly and to prevent fluid exchange between the sample and the Barozyme chamber fluid during pressure cycling. The silicone caps are available as strips of 8, or mats of 24 caps.

We believe our development of these various consumable products has helped, and will continue to help, drive the adoption of PCT within the life sciences market.

Extended Service Contracts

We offer extended service contracts on our laboratory instrumentation to all of our customers. These service contracts allow a customer who purchases a Barocycler® instrument to receive on-site scheduled preventative maintenance, on-site repair and replacement of all worn or defective component parts, and telephone support, all at no incremental cost for the life of the service contract. We offer one-year and four-year extended service contracts to customers who purchase Barocycler® instruments.

The Shredder SG3 System

The Shredder SG3 is a low shear mechanical homogenization system for use with tough, fibrous and other difficult-to-disrupt tissues and organisms. The Shredder SG3 System uses a variety of Shredder PULSE® Tubes to directly and rapidly grind a biological sample which, when combined with selected buffers, can provide effective extraction of proteins, DNA, RNA, lipids and small molecules from tissues and organisms. The Shredder SG3 is also used to isolate intact and functional mitochondria from tissues. The Shredder SG3 features a three position force setting lever, which enables the operator to select and apply reproducible force to the sample during the shredding process and eliminates the need for the operator to exert force for long periods when processing one or more samples.

Manufacturing and Supply of Our Products

CBM Industries (Taunton, MA) has recently become the manufacturer of the Barocycler® 2320EXT. CBM is ISO 13485:2003 and 9001:2008 Certified. CBM provides us with precision manufacturing services that include management support services to meet our specific application and operational requirements. Among the services provided by CBM to us are:

- CNC Machining
- Contract Assembly & Kitting
- Component and Subassembly Design
- Inventory Management
- ISO certification

At this time, we believe that outsourcing the manufacturing of our new Barocycler® 2320EXT to CBM is the most cost-effective method for us to obtain ISO Certified, CE and CSA Marked instruments. CBM's close proximity to our South Easton, MA facility is a significant asset enabling interactions between our Engineering, R&D, and Manufacturing groups and their counterparts at CBM. CBM was instrumental in helping PBI achieve CE Marking on our Barocycler 2320EXT, as announced on February 2, 2017.

Although we currently manufacture and assemble the Barozyme HT48, Barocycler® HUB440, the SHREDDER SG3, and most of our consumables at our South Easton, MA facility, we plan to take advantage of the established relationship with CBM and transfer manufacturing of the entire Barocycler® product line, future instrument, and other products to CBM.

The Barocycler® NEP3229, launched in 2008, and manufactured by the BIT Group, will be phased out over the next several years and replaced by the new state-of-the-art Barocycler® HUB and Barozyme HT product lines.

Constant Systems, Ltd.

We are the exclusive distributor, throughout the Americas, for CS cell disruption equipment, parts, and consumables. CS, a British company located about 90 minutes northwest of London, England, has been providing niche biomedical equipment, related consumable products, and services to a global client base since 1989. CS designs, develops, and manufactures high pressure cell disruption equipment required by life sciences laboratories worldwide, particularly disruption systems for the extraction of proteins. The CS equipment provides a constant and controlled cell disruptive environment, giving the user superior, constant, and reproducible results whatever the application. CS has over 900 units installed in over 40 countries worldwide. The CS cell disruption equipment has proven performance in the extraction of cellular components, such as protein from yeast, bacteria, mammalian cells, and other sample types.

The CS pressure-based cell disruption equipment and our PCT-based instrumentation complement each other in several important ways. While both the CS and our technologies are based on high pressure, each product line has fundamental scientific capabilities that the other does not offer. Our PCT Platform uses certain patented pressure mechanisms to achieve small-scale, molecular level effects. CS's technology uses different, proprietary pressure mechanisms for larger-scale, non-molecular level processing. In a number of routine laboratory applications, such as protein extraction, both effects can be critical to success. Therefore, for protein extraction and a number of other important scientific applications, we believe laboratories will benefit by using the CS and our products, either separately or together.

Research and Development

Our research and development activities are split into two functional areas: Applications Development and Engineering.

1. *Applications Development R&D*: Our highly educated and trained staff has years of experience in molecular and cellular biology, virology, and proteomics. Our team of scientists focuses on the development and continued improvement of the PCT Sample Preparation System and on PCT-dependent genomic, proteomic, and small molecule sample preparation applications. Dr. Alexander Lazarev, our vice president of Research & Development, meets regularly with our sales, marketing, and engineering staff to discuss market needs and trends. Our applications research and development team is responsible for the technical review of all scientific collaborations, for the support of our marketing and sales departments through the generation of internal data in a number of areas of market interest, and in the development of commercially-viable PCT-dependent products.
2. *Engineering R&D*: Our engineering research and development team is focused on the design and development of new and improved instrumentation and consumable products to support the commercialization of PCT. Our engineering department is led by Dr. Edmund Ting, our senior vice president of engineering. The primary focus of our engineering group is to develop and continually improve our line of PCT-based instruments and consumables, ensure seamless production processes, perform installations and field service, and work with our application scientists to enhance our PCT-based systems for the mass spectrometry and other markets.

Collaboration Program

Our collaboration program is an important element of our business strategy. Initiating a collaboration with a researcher involves the installation of a Barocycler® instrument for an agreed upon period of time of approximately three to twelve months, and the execution of an agreed upon work plan. Our primary objectives for entering into a collaboration agreement include:

- the development of a new application for PCT and CP in sample preparation;
- the advancement and validation of our understanding of PCT and CP within an area of life sciences in which we already offer products;
- the demonstration of the effectiveness of PCT and CP by specific research scientists, particularly Key Opinion Leaders (“KOLs”), who we believe can have a positive impact on market acceptance of PCT; and
- the expectation of peer-reviewed publications and/or presentations at scientific meetings by a third party, especially a KOL, on the merits of PCT and CP.

Since we initiated our collaboration program, third party researchers have cited the use of our PCT platform in multiple publications and presentations. We believe that this program has provided and continues to provide us with independent and objective data about PCT from well-respected laboratories in the United States and throughout the rest of the world.

We view federal agency grants to be an important part of our business plan. These types of grants allow us to bill the federal agency for work that we are planning to perform as part of the development and commercialization of our technology. We generally start by submitting initial grant requests that are in response to requests for proposals (“RFPs”) from the federal government through their Small Business Innovation Research (“SBIR”) program. Initial (“SBIR Phase I”) grants are meant to fund approved research projects for six months, and generally have budgets of approximately \$100,000 to \$150,000. Because our work in SBIR Phase I grants has been successful, we have applied, and may in the future apply for larger National Institutes of Health (“NIH”) SBIR Phase II grants. Such larger grants are typically for a two-year period and can offer as much as \$1,000,000 to support significant research projects in areas we would otherwise expect to support with internal funds should SBIR Phase II grants not be awarded. To date, we have been awarded five NIH SBIR Phase I grants and three SBIR Phase II grants. The data on three of the NIH SBIR Phase I grants were the basis for the submission, and subsequent award. Of the three NIH SBIR Phase II grants awarded to us: one was in the approximate amount of \$845,000 in August 2008, the second was in the approximate amount of \$850,000 in September 2011, and the third award was in the approximate amount of \$1,020,000 awarded in November 2014. All five of the NIH SBIR Phase I grants and the August 2008 and September 2011, NIH SBIR Phase II grants have been completed.

The 2008 SBIR Phase II grant (2R44GM079059) was awarded to us by the NIH for work in the area of using PCT to extract proteins, sub-cellular molecular complexes, and organelles, with the expectation that these studies might ultimately lead to the release of a new, commercially available PCT-based system, with validated protocols, end-user kits, and other consumables intended for the extraction of clinically important protein biomarkers, sub-cellular molecular complexes, and organelles from human and animal tissues. The 2011 SBIR II contract (W81XWH-10-C-0-175) was awarded to us by the U.S. Army for the development of a universal method for the inactivation, extraction, and enrichment of pathogens in diagnostic samples, including arthropod hosts of military importance. The work covered by this grant was significant in helping us develop the Barozyme HT48 High Throughput System. The 2014 SBIR Phase II grant (2R44HG007136) was awarded to us by the National Human Genome Research Institute of the NIH. Entitled “High Pressure Sample Preparation Instrumentation for DNA Sequencing”, this grant allowed us to develop the Barocycler HUB880, an automated, high-throughput, high pressure system (instrument and consumables), to enable significantly better control of DNA fragmentation - a critical step in the preparation of samples for Next Generation Sequencing platforms. This system was based on significant technological advancements over the classic hydrodynamic DNA shearing approach that has been successfully and widely used in the field of DNA sequencing for many years.

Customers

Our customers include researchers at academic laboratories, government agencies, biotechnology companies, pharmaceutical companies and other life science institutions in the United States, Europe, and in Asia. Our goal is to continue aggressive market penetration in these target groups. We also believe that there is a significant opportunity to sell and/or lease additional Barocycler® instrumentation to additional laboratories at current customer institutions.

If we are successful in commercializing PCT in applications beyond our current focus area of genomic, proteomic, lipidomic, and small molecule sample preparation, and if we are successful in our attempts to attract additional capital, our potential customer base could expand to include hospitals, reference laboratories, pharmaceutical manufacturing plants and other sites involved in each specific application. If we are successful in forensics, our potential customers could be forensic laboratories, military and other government agencies. If we are successful in histology (extraction of biomolecules from FFPE tissues), our potential customers could be pharmaceutical companies, hospitals, and laboratories focused on drug discovery or correlation of disease states.

Competition

We compete with companies that have existing technologies for the extraction of nucleic acids, proteins and small molecules from cells and tissues, including methods such as mortar and pestle grinding, sonication, rotor-stator homogenization, French Press, bead beating, freezer milling, enzymatic digestion and chemical dissolution. We believe that there are a number of significant issues related to the use of these methods, including: complexity, sample containment, possibility of cross-contamination, shearing of biomolecules of interest, and limited applicability to different sample types, ease-of-use, reproducibility, and cost. We believe that our PCT Sample Preparation System offers a number of significant advantages over these methods, including:

- labor reduction
- temperature control
- precision
- reproducibility
- versatility
- efficiency
- simplicity
- safety

To be competitive in the industry, we believe we must be able to clearly and conclusively demonstrate to potential customers that our products provide these improved performance capabilities. We strongly believe that our PCT Sample Preparation System is a novel and enabling system for genomic, proteomic, lipidomic, and small molecule sample preparation. As such, many users of current manual techniques may be willing to challenge their existing methods of sample preparation and invest time to evaluate a method that could change their overall workflow in the sample preparation process, prior to adopting our technology.

Further, we are aware that the cost of the PCT Sample Preparation System may be greater than the cost of many of the other sample preparation methods currently employed. Consequently, we are focusing our sales efforts on those product attributes that we believe will be most important and appealing to potential customers, namely versatility, reproducibility, quality and safety.

Product Pipeline

The following instruments are in our research and development pipeline:

- *Barocycler® FFPE Protein Extraction Instrument System* - A PCT-based system offering the enhanced extraction of proteins from FFPE samples using a modified Barocycler® instrument that combines the advantages of pressure cycling, high temperature and certain reagents. We estimate that it will take approximately 18 months following the completion of this offering and \$500,000 in costs to complete the acquisition of the intellectual property needed for pressure-based FFPE extraction and complete the research and development to get this product ready for production and sale.
- *XstreamPCT™ HPLC Digestion Module* - For automated, in-line, on-demand PCT-enhanced protein digestion; the first module in our PCT-based HPLC platform. We have secured the trademark for this product and we have filed patents with regard to this product in the U.S., Canada, and China. We estimate that it will take approximately two years following the completion of this offering and \$1,500,000 in costs to get this product ready for production and sale.

Sales and Marketing

Our marketing and sales function is led by Dr. Nathan Lawrence, our vice president of Marketing and Sales. Dr. Lawrence oversees and directs marketing and sales activities such as trade show attendance and sponsorship, on-line advertising, website maintenance and improvement, search engine optimization, creation and dissemination of a PCT newsletter, market research initiatives, the arrangement of on-location seminars, lectures, and demonstrations of PCT capabilities, and the supervision of our one-person sales force. Dr. Lawrence is also responsible for the overall coordination of our collaboration programs, from initial set-up, research plan design, and training, service, and data analysis. Some of these responsibilities are shared with other departments such as Research and Development, but marketing and sales drives the collaborative process. Dr. Lawrence is also responsible for the continued coordination and support of our foreign distribution partners.

Our sales and marketing efforts are centered on using the independent data developed and disseminated by our collaboration partners to help drive the installed base of our PCT Sample Preparation System. The development of scientific data by our partners and our internal researchers provides our sales and marketing staff with additional tools that are essential in selling a paradigm-shifting, new technology such as PCT.

Sales

Direct US Sales Force

Our domestic sales force currently consists of three full-time sales directors and one part-time salesperson. We have committed to a plan to increase the number of full-time sales professionals in late 2016 and early 2017 by a minimum of two additional full-time staff. We expect to hire additional sales and marketing personnel throughout 2017, with a goal that our sales and marketing department will have a minimum of six staff focused on sales and two on marketing before the end of 2017.

Marketing Strategy

We recognize that our enabling pressure cycling technology (PCT) is novel. Consequently, the power of PCT is not yet generally known by researchers. Our first goal is to greatly broaden the awareness of PCT and its applications among scientists and to ensure they know that this technology exists through our Barocycler® family of high-pressure instruments and requisite consumables. To accomplish this expansion of knowledge about PCT and the subsequent adoption of our PCT-based products, we have developed and are implementing a multi-faceted approach to marketing the PCT platform.

Key Opinion Leaders and Publications

To initially reach scientists, we have established collaborations with key opinion leaders (KOL) that recognized early the potential for PCT and went on to report their discoveries in peer reviewed journals. Among the KOLs working with us is Dr. Ruedi Aebersold (Head of the Department of Biology, ETH, Zurich). Dr. Aebersold, a pioneer in proteomics, worked with our scientist and engineers to develop PCT-SWATH (aka PCT-HD), a superior method for the extraction and preparation of proteins for the downstream analysis by mass spectrometry. Other KOLs include, Dr. Jennifer van Eyk (Director of *Advanced Clinical Biosystems Institute in the Department of Biomedical Sciences Cedar Sinai, Los Angeles, CA*) and Dr. Wayne Hubble (Jules Stein Professor at the University of California, LA). Dr. van Eyk is a recognized expert in the causes of heart disease and is using PCT in her attempt to discover cardiac disease biomarkers. Dr. Hubble, a member of the National Academy of Science, is a leader in the field of electron paramagnetic resonance (EPR). He uses PCT in his studies of protein-protein interactions, so very important in the discovery of drugs and drug design. The publications and presentations of these and other world class scientists have been invaluable in gaining initial entry of PCT in several areas of research. In addition to publications by our KOLs, there are also many peer reviewed publications from dozens of other scientists discussing the advantages of the PCT platform in bio-molecule sample preparation. To this end, we do all we can to disseminate the work of these scientists in an effort to increase the exposure of PCT to the worldwide research community.

Broadcasting PCT and Our Products

1. We attend, exhibit, and present at top scientific meetings such as the American Society of Mass Spectrometry (ASMS) and both the US and International meetings of the Human Proteome Organization (HUPO). These meetings are an opportunity to present our technology and to showcase our products to scientists who require sample preparation in their research studies.
2. Routine and timely “blast” emails to scientists in our database. Topics include new PCT-related publications, announcements of meetings, product advertisements, and a monthly newsletter. The database we use is proprietary, as it has been built from attending scientific meetings and searching the internet for relevant publications and contact information.
3. We manage our database with Salesforce, a state-of-the-art Customer Relationship Management (CRM) system. Through Salesforce, we employ the marketing automation software Pardot to manage our email blasts. Pardot enables us to assess open rate, level of interest, and create automatic and constant contact with potential clients.

4. We use social media platforms like LinkedIn, Twitter and Facebook to broadcast publications, webinars, our presence at scientific meetings, and press releases. Social media enables us to easily reach scientists world-wide.
5. In 2016, we significantly upgraded our website. The upgraded website contains a state-of-the art search engine that enables researchers to rapidly find PCT-related publications and products.
6. The website contains videos of our products. In 2016, we contracted with BioCompare to produce a high quality video showing PCT-HD and the uses of our Barocycler® 2320EXT and the MicroTube System.
7. Our scientists regularly present their findings and discuss our products at scientific sessions at regional, national, and international scientific conferences, and at corporate, government, and academic laboratories.
8. In addition to electronic advertising, we have used and will continue to use print media to showcase our products.

In 2017, we plan to expand our Marketing team to support these and additional initiatives.

Foreign Distributor Network

Exclusive Agreements

Currently, we have distribution arrangements covering China, Poland, 24 countries in Europe, and Japan. We expect the following agreements will be extended during 2017 for a minimum of at least two additional years.

In May of 2014, we entered into a three-year distribution agreement with Powertech Technology Co, Ltd., of China, pursuant to which we were granted Powertech Technology exclusive distribution rights to all of our products in China.

In February 2016, we entered into a three-year distribution agreement with *bioanalytic* of Poland, pursuant to which PBI granted *bioanalytic* exclusive distribution rights to all of our products in Poland.

In September of 2016, we entered into a three-year distribution agreement with Vita Co. of Japan, pursuant to which we were granted Vita Co. exclusive distribution rights to all of our products in Japan.

In September of 2016, we entered into a distribution agreement with I&L GmbH, of Germany pursuant, to which we were granted I&L, exclusive distribution rights to all of our products in the countries designated as Western Europe (Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Gibraltar, Greece, Iceland, Italy, Ireland, Liechtenstein, Luxembourg, Malta, Monaco, Norway, Netherlands, Portugal, San Marino, Spain, Sweden, Switzerland, and the United Kingdom)

Non-Exclusive and Other Distribution Agreements

In November 2011, we entered into a distributor agreement with OROBOROS Instruments Corp. (“*OROBOROS*”) of Austria pursuant to which we were granted OROBOROS non-exclusive world-wide distribution rights to our Shredder SG3 System and related products.

In June 2013, CS and PBI signed an expanded Distribution Agreement that made us the exclusive distributor of CS products throughout all of the Americas until 2019.

In January 2016, SCIEX, a global leader in life science analytical technologies, announced an exclusive two-year co-marketing agreement with PBI. In their press release, SCIEX stated that the relationship with us will uniquely position SCIEX to address a major challenge in complex sample preparation by marketing a complete solution to increase the depth, breadth, and reproducibility of protein extraction, digestion, and quantitation in all tissue types, including challenging samples like tumors. Under the agreement, PBI and SCIEX will promote PCT Sample Preparation Systems such as PCT-HD with SWATH® Acquisition-based next generation proteomics, TripleTOF® Systems, QTRAP® Systems, and Triple Quad Systems. This focus on improved sample preparation, a crucial step performed in research laboratories worldwide, will enable scientists to extract more proteins reproducibly from complex sample types, potentially yielding superior biological insights and discoveries.

Competitive Advantages/Operational Strengths

Our platforms are based on our patented and proprietary Pressure Cycling Technology (PCT). We believe the PCT platform provides distinct and important competitive advantages over other sample preparation methods, as it:

- is proprietary to PBI
- has been shown to extract more classes of proteins from tissues and cells than many other current sample preparation methods. We believe this claim is supported by several publications and presentations available on our website, most notably by Dr. R. Aebersold, Professor at the Institute of Molecular Systems Biology, ETH-Zurich. Dr. Aebersold's publications include:
- can accelerate enzymatic digestion of proteins for analysis by mass spectrometry from overnight to under an hour. We believe this claim is supported by several experiments. For example, Dr. A. Ivanov published a paper available on our website.
- enables efficient sample prep workflows for processing minute amounts of tissue with excellent yields and reproducibility for researchers in the growing precision and translational medicine fields.

Summary of Growth Strategy

Our growth strategy includes:

- Expanding our United States salesforce.
- Aggressively promoting the PCT-HD System, which includes the Barocycler® 2320EXT, MicroTube System, and MicroPestles.
- Expanding our number of international distributors.
- Actively promoting our other Barocycler® products, accessories, and consumables, including but not limited to, the Barozyme, the HUB440, and HUB880.
- Development of new applications for the Barocycler® 2320EXT, such as, but not limited to, clinical applications.
- Development of new high-pressure applications for industries outside of biotechnology, such as, but not limited to, food science.
- Development of new high-pressure instruments, devices, and consumables to meet the growing demand for pressure-based technology.

Intellectual Property

We believe that protection of our patents and other intellectual property is essential to our business. Subject to the availability of sufficient financial resources, our practice is to file patent applications to protect technology, inventions, and improvements to inventions that are important to our business development. We also rely on trade secrets, know-how, and technological innovations to develop and maintain our potential competitive position.

PBI has 14 United States granted patents and 1 foreign granted patent (Japan: 5587770, EXTRACTION AND PARTITIONING OF MOLECULES) covering multiple applications of PCT in the life sciences field. Our issued patents expire between 2017 and 2032. PBI also has 19 pending patents in the USA, Canada, Europe, Australia, China, and Taiwan. Our failure to obtain and maintain adequate patent protection may adversely affect our ability to enter into, or affect the terms of, any arrangement for the marketing or sale of any of our PCT products. It may also allow our competitors to duplicate our products without our permission and without compensation.

License Agreements Relating to Pressure Cycling Technology

BioMolecular Assays, Inc.

In 1996, we acquired our initial equity interest in BioSeq, Inc., which at the time was developing our original pressure cycling technology. BioSeq, Inc. acquired its pressure cycling technology from BioMolecular Assays, Inc. under a technology transfer and patent assignment agreement. In 1998, we purchased all of the remaining outstanding capital stock of BioSeq, Inc., and at such time, the technology transfer and patent assignment agreement was amended to require us to pay BioMolecular Assays, Inc., a 5% royalty on our sales of products or services that incorporate or utilize the original pressure cycling technology that BioSeq, Inc. acquired from BioMolecular Assays, Inc. We are also required to pay BioMolecular Assays, Inc. 5% of the proceeds from any sale, transfer or license of all or any portion of the original pressure cycling technology. These payment obligations terminated March 7, 2016. During the years ended December 31, 2016 and 2015, we incurred approximately \$6,963 and \$31,301, respectively, in royalty expense associated with our obligation to BioMolecular Assays, Inc.

In connection with our acquisition of BioSeq, Inc., we licensed certain limited rights to the original pressure cycling technology back to BioMolecular Assays, Inc. This license is non-exclusive and limits the use of the original pressure cycling technology by BioMolecular Assays, Inc. solely for molecular applications in scientific research and development and in scientific plant research and development. BioMolecular Assays, Inc. is required to pay us a royalty equal to 20% of any license or other fees and royalties, but not including research support and similar payments, it receives in connection with any sale, assignment, license or other transfer of any rights granted to BioMolecular Assays, Inc. under the license. BioMolecular Assays, Inc. must pay us these royalties until the expiration in March 2016 of the patents held by BioSeq, Inc. since 1998. We have not received any royalty payments from BioMolecular Assays, Inc. under this license.

Battelle Memorial Institute

In December 2008, we entered into an exclusive patent license agreement with the Battelle Memorial Institute (“Battelle”). The licensed technology is the subject of a patent application filed by Battelle in 2008 and relates to a method and a system for improving the analysis of protein samples, including through an automated system utilizing pressure and a pre-selected agent to obtain a digested sample in a significantly shorter period of time than current methods, while maintaining the integrity of the sample throughout the preparatory process. In addition to royalty payments on net sales on “licensed products,” we are obligated to make minimum royalty payments for each year that we retain the rights outlined in the patent license agreement and we are required to have our first commercial sale of the licensed products within one year following the issuance of the patent covered by the licensed technology. After re-negotiating the terms of the contract in 2013, the minimum annual royalty was \$1,200 in 2014 and \$2,000 in 2015; the minimum royalties are \$3,000 in 2016, \$4,000 in 2017 and \$5,000 in 2018 and each calendar year thereafter during the term of the agreement.

Regulation

Many of our activities are subject to regulation by governmental authorities within the United States and similar bodies outside of the United States. The regulatory authorities may govern the collection, testing, manufacturing, safety, efficacy, labeling, storage, record keeping, transportation, approval, advertising, and promotion of our products, as well as the training of our employees.

Currently, all of our commercialization efforts are focused in the area of genomic, proteomic, lipidomic, and small molecule sample preparation. We do not believe that our current Barocycler® products used in sample preparation are considered “medical devices” under the United States Food, Drug and Cosmetic Act (the “*FDA Act*”) and we do not believe that we are subject to the law’s general control provisions that include requirements for registration, listing of devices, quality regulations, labeling and prohibitions against misbranding and adulteration. We also do not believe that we are subject to regulatory inspection and scrutiny. If, however, we are successful in commercializing PCT in applications beyond our current focus area of genomic, proteomic, lipidomic, and small molecule sample preparation, such as protein purification, pathogen inactivation and immunodiagnostics, our products may be considered “medical devices” under the FDA Act, at which point we would be subject to the law’s general control provisions and regulation by the FDA that include requirements for registration listing of devices, quality regulations, labeling, and prohibitions against misbranding and adulteration. The process of obtaining approval to market these devices in the other potential applications of PCT would be costly and time consuming and could prohibit us from pursuing such markets.

Some of our devices may also become subject to the European Pressure Equipment Directive, which requires certain pressure equipment meet certain quality and safety standards. We do not believe that we are currently subject to this directive because our Barocycler® instruments are below the threshold documented in the text of the directive. If our interpretation were to be challenged, we could incur significant costs defending the challenge, and we could face production and selling delays, all of which could harm our business.

We self-certified that our Barocycler® instrumentation was electromagnetically compatible, or “CE” compliant, which means that our Barocycler® instruments meet the essential requirements of the relevant European health, safety and environmental protection legislation. In order to maintain our CE Marking, a requirement to sell equipment in many countries of the European Union, we are obligated to uphold certain safety and quality standards. Due to outsourcing manufacturing to CBM, an ISO certified contract manufacturer, we believe compliance with CE and other required marks and certifications is well controlled.

Employees

At March 31, 2017, we had nine (9) full-time employees and four (4) part-time employees. All employees enter into confidentiality agreements intended to protect our proprietary information. We believe that our relations with our employees are good. None of our employees are represented by a labor union. Our performance depends on our ability to attract and retain qualified professional, scientific and technical staff. The level of competition among employers for skilled personnel is high. Subject to our limited financial resources, we attempt to maintain employee benefit plans to enhance employee morale, professional commitment and work productivity and provide an incentive for employees to remain with us.

Properties

Our corporate office is currently located at 14 Norfolk Avenue, South Easton, Massachusetts 02375. We are currently paying \$4,800 per month, on a lease extension, signed on December 29, 2016, that expires December 31, 2017, for our corporate office.

On November 1, 2014 we signed a lease for lab space in Medford, MA. We subsequently expanded our space in Medford. The lease expires December 30, 2017 and requires monthly payments of \$5,385 subject to annual cost of living increases.

Legal Proceedings

We are not currently involved in any litigation that we believe could have a material adverse effect on our financial condition or results of operations. There is no action, suit, or proceeding by any public board, government agency, self-regulatory organization or body pending or, to the knowledge of our executive officers, threatened against or affecting us, our common stock, our subsidiary or any officers or directors in their capacities as such, in which an adverse decision could have a material adverse effect.

DIRECTORS AND EXECUTIVE OFFICERS

Our executive officers are appointed by, and serve at the discretion of, our board of directors. The following table sets forth information about our executive officers.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Richard T. Schumacher	66	President, Chief Executive Officer, Treasurer, Clerk and Director ⁽¹⁾
Edmund Ting, Ph.D.	63	Senior Vice President of Engineering
Nathan P. Lawrence, Ph.D.	62	Vice President of Marketing
Alexander Lazarev, Ph.D.	52	Vice President of Research and Development
Joseph L. Damasio, Jr.	42	Vice President of Finance, Chief Financial Officer,

(1) Mr. Schumacher's term of office as a director continues until 2017.

Set forth below is biographical information for each of our executive officers.

Mr. Richard T. Schumacher, the founder of the Company, has served as a director of the Company since 1978. He has served as the Company's Chief Executive Officer since April 16, 2004 and President since September 14, 2004. He previously served as Chief Executive Officer and Chairman of the Board of the Company from 1992 to February 2003. From July 9, 2003 until April 14, 2004 he served as a consultant to the Company pursuant to a consulting agreement. He served as President of the Company from 1978 to August 1999. Mr. Schumacher served as the Director of Infectious Disease Services for Clinical Sciences Laboratory, a New England-based medical reference laboratory, from 1986 to 1988. From 1972 to 1985, Mr. Schumacher was employed by the Center for Blood Research, a nonprofit medical research institute associated with Harvard Medical School. Mr. Schumacher received a B.S. in Zoology from the University of New Hampshire.

Dr. Edmund Ting joined us as Senior Vice President of Engineering on April 24, 2006. Prior to joining us, Dr. Ting served as the Chief Research Officer of Avure Technologies, a leading worldwide manufacturer of high pressure hydrostatic processing equipment for the food and materials processing industry, where he worked from 2001 to 2006. From 1990 to 2001, Dr. Ting was employed by Flow International Corporation, a world leader in the ultrahigh pressure waterjet cutting technology market, and the parent company of Avure Technologies until November 2005. Dr. Ting last held the position of Vice President of Engineering Research and Development at Flow International Corporation. From 1984 to 1990, Dr. Ting was a research scientist and then a group leader at Grumman Aerospace Corporation. Dr. Ting earned a Bachelor of Science degree in mechanical engineering from Northeastern University and a Science Doctorate in materials science and engineering from the Massachusetts Institute of Technology.

Dr. Nathan P. Lawrence was appointed as our Vice President of Marketing and Sales on April 1, 2006. Dr. Lawrence joined Pressure BioSciences Inc. in 2005, serving as Director of Research and Development until his promotion to Vice President of Marketing in 2006. Dr. Lawrence was responsible for the development of protocols based on Pressure Cycling Technology (PCT). From 2004 through 2005, Dr. Lawrence worked for 454 Life Sciences Inc. in product development. Prior to 454 Life Sciences, Dr. Lawrence was Director of Research and Development for Boston Biomedica, Inc. from 1998 to 2004. He was primarily responsible for the development of PCT, as well as the development of nucleic acid-based diagnostic assays. Prior to joining Boston Biomedica, Inc., Dr. Lawrence held several positions with increasing responsibility in Research and Development and manufacturing at Becton Dickinson and Gene Trak Systems. Dr. Lawrence holds a BA from the University of Miami, an M.S. from Southern Connecticut State University, and a Ph.D. from Yale University.

Dr. Alexander Lazarev has served as our Vice President of Research and Development since 2007. Prior to that, he served as our Director of Research and Development, since joining us in 2006. Prior to joining us, Dr. Lazarev worked as a Visiting Scientist at the Barnett Institute of Chemical and Biological Analysis at Northeastern University in 2005, and served as a Director of New Technology Development at Proteome Systems, Inc., where he was involved in research and development of innovative proteomic analysis applications from 2001 until early 2006. From 1998 to 2001, Dr. Lazarev was employed as Senior Scientist at the Proteomics Division of Genomic Solutions, Inc. Prior to his employment at Genomic Solutions, Inc., Dr. Lazarev was employed in an analytical contract service startup company, PhytoChem Technologies, Inc., which was founded as a spin-off from ESA, Inc. in 1997. Previously, Dr. Lazarev held various scientific positions at the Ohio State University School of Medicine and the Uniformed Services University of Health Sciences. Most of his scientific career has been dedicated to development of methods and applications for biochemical analysis. Since 2005, Dr. Lazarev has been elected as an Executive Board member of the MASSEP.org, a non-profit scientific discussion forum dedicated to the promotion and improvement of chromatography and other analytical technologies. Dr. Lazarev earned his undergraduate and graduate degrees at the University of Kazan, Russian Federation.

Mr. Joseph L. Damasio, Jr. has been our Vice President of Finance and Chief Financial Officer since April 2017. Mr. Damasio has over 20 years of finance and accounting experience. Prior to joining PBI, Mr. Damasio was Finance Director at Nelipak Packaging, a private equity backed medical packaging manufacturer with \$130 million in global annual sales, from April 2016 to April 2017. Before joining Nelipak, between November 2012 and April 2016, Mr. Damasio held various financial positions at CP Bourg, IQE KC, and Kopin Corporation. Prior to Kopin, Mr. Damasio was employed by PBI, first as Accounting Manager (2007), then as Controller (2008), and finally as Vice President of Finance and Administration (2011). Prior to joining PBI in 2007, Mr. Damasio was a senior accountant at BearingPoint, Inc. (formerly KPMG Consulting) and an auditor at PriceWaterhouseCoopers, LLP. Mr. Damasio began his financial career with NEN Life Science Products Inc., a subsidiary of PerkinElmer Inc. Mr. Damasio earned a bachelor's degree in accounting, with honors, from the University of Massachusetts. He holds an MBA and MSF from Boston College and is a Certified Public Accountant in Massachusetts.

Non-Employee Directors

The following table sets forth information about the individuals who serve as our non-employee directors.

Name	Age	Position	Board Committees	Term of office expires:
Jeffrey N. Peterson	61	Chairman of the Board	Audit, Compensation, Nominating	2018
Dr. Mickey Urdea	64	Director	Scientific Advisory Board	2018
Vito J. Mangiardi	68	Director	Audit, Compensation, Nominating	2019
Kevin A. Pollack	46	Director	Audit, Compensation, Nominating	2019

The following noteworthy experience, qualifications, attributes and skills for each Board member, together with the biographical information for each nominee described below, led to our conclusion that the person should serve as a director in light of our business and structure:

Mr. Jeffrey N. Peterson has served as a director of the Company since July 2011 and as Chairman of the Board starting in 2012. Since 1999, he has served as the chief executive officer of Target Discovery, Inc. (“TDI”), a personalized medicine diagnostics (PMDx) company. Mr. Peterson also serves as Chairman of TDI’s majority-owned subsidiary, Veritomyx, Inc., which is completing development and commercialization of software tools for accurate peptide, protein and isoform identification and characterization. Prior to incorporating and joining TDI, Mr. Peterson served as CEO of Sharpe, Peterson, Ocheltree & Associates, an international business development consulting firm assisting Fortune 500 and many smaller firms in business expansion and strategy. Prior to that, he spent 9 years in key management roles in Abbott Laboratories’ Diagnostics and International (Pharmaceuticals, Hospital Products, Nutritionals, and Consumer) businesses, last serving as CEO and General Manager of Abbott South Africa. Mr. Peterson’s experience prior to Abbott Laboratories included 11 years with General Electric’s Engineered Materials and Plastics businesses, spanning roles in strategic planning, business development, technology licensing, marketing and sales, operations, quality control and R&D. Mr. Peterson holds BSChE and MSChE (Chemical Engineering) degrees from MIT, as well as 6 issued US and many related international patents, and has authored articles in peer-reviewed scientific journals. Mr. Peterson is Chair Emeritus of the BayBio Institute, a non-profit organization serving the regional life science community. He served for 12 years on the Board of BayBio, the trade association for the life sciences industry in Northern California. He was a cofounder of the Coalition for 21st Century Medicine, and of BIO’s Personalized Medicine & Diagnostics Working Group, and served on the board of Advisors for the Center for Professional Development and Entrepreneurship at the University of Texas MD Anderson Cancer Center. Mr. Peterson has lived and worked overseas for 18 years, in the Middle East, Europe and Africa, and is Chair Emeritus of the American International School of Johannesburg.

Mr. Vito J. Mangiardi has served as a director of the Company since July 2012. Mr. Mangiardi is an accomplished senior executive with proven experience as a President, CEO and COO in the Life Sciences and Bio Energy product and service sectors. Mr. Mangiardi has held positions as a Research Chemist for Bio-Rad Laboratories, Inc.; Sales & Marketing Director for Baxter Travenol, Inc.; Executive VP and COO for Quintiles Transnational Corp.; President and CEO of Diagnostics Laboratories, Inc., Clingenix, Inc., and Bilcare, Inc.; and President of AAI Pharma, Inc. More recently he was the COO/Deputy Director of Operations and Production at the University of California Lawrence Berkeley National Laboratory Joint Genome Institute. Mr. Mangiardi has experience with three start-ups, two midsize, and several mature companies, and has international experience leading and managing organizations on four continents. He has experience in leading alliances, acquisitions, due diligence, and post-acquisition assimilation. Mr. Mangiardi has been on the Board of Directors of three companies and has proven success in working with both national and international investment groups to raise funds. Mr. Mangiardi earned a BS in Biology/Chemistry from Eastern Illinois University and two MBA degrees from Golden Gate University - in General Management and in Marketing. Mr. Mangiardi is listed as an inventor on four patents and has published articles in various publications in protein separation techniques in the area of metabolism, thyroid, anemia/hematology and cancer, and is a member of numerous professional organizations. In March of 2011 Mr. Mangiardi became founding partner, President and CEO of Marin Bay Partners, LLC (MBP), a consulting firm focused on life sciences, pharmaceutical development and clinical diagnostics.

Mr. Kevin A. Pollack has served as a director of the Company since July 2012. Mr. Pollack has been the Chief Financial Officer of Opiant Pharmaceuticals, Inc. (OPNT-OTCQB), a specialty pharmaceutical company developing pharmacological treatments for substance use, addictive, and eating disorders since November 2012. He has been an investment banker and securities attorney at Banc of America Securities LLC and Sidley Austin LLP (formerly Brown & Wood LLP), respectively, and has previous asset management experience at Paragon Capital LP since October of 2007. Mr. Pollack is a magna cum laude graduate of the Wharton School of the University of Pennsylvania and holds J.D. and M.B.A. degrees from Vanderbilt University, where he graduated with Beta Gamma Sigma honors. Currently, he presently sits on the Boards of Directors of Opiant Pharmaceuticals, Inc. and MagneGas Corporation (MNGA-NASDAQ), an alternative energy company. Mr. Pollack also is President of Short Hills Capital LLC.

Dr. Michael S. “Mickey” Urdea has served as a director of the Company since February 8, 2013. Dr. Urdea is a Founder and Partner for Halteres Associates, a biotechnology consulting firm since June 2011. He also founded and served as Chief Executive Officer of Tethys Bioscience, a proteomics-based diagnostics company involved in preventative personalized medicine. Additionally, Dr. Urdea is a founder and the Chairman of Catalysis Foundation for Health, an organization addressing gaps in global healthcare caused by inefficiencies in disease diagnosis and monitoring. He serves as an expert consultant to the life sciences industry and is on the scientific advisory boards and boards of directors of a number of biotechnology, diagnostics, venture capital and philanthropic organizations. Prior to his current business activities, Dr. Urdea founded the Nucleic Acid Diagnostics group at Chiron Corporation, and with colleagues, invented branched DNA molecules for amplification of signal in nucleic acid complexes. Application of this technology resulted in the first commercial products for quantification of human hepatitis B, hepatitis C, and human immunodeficiency viruses (HBV, HCV and HIV, respectively). He then became business head of the Molecular Diagnostics group and Chief Scientific Officer at Bayer Diagnostics. He continues to serve as a diagnostics industry, product development and scientific advisor to the Bill and Melinda Gates Foundation, acted as co-chair of two of the Grand Challenges grant review committees, and served as a member of its Diagnostic Forum. Dr. Urdea is an author on nearly 200 peer-reviewed scientific publications, nearly 300 abstracts and international scientific presentations, and more than 100 issued and pending patents. He received his BS in Biology and Chemistry from Northern Arizona University in Flagstaff and his Ph.D. in Biochemistry from Washington State University.

Family Relationships

There are no family relationships among any of our directors or executive officers.

Board Composition and Director Independence As of the date of this prospectus, our board of directors consists of five members: Richard T. Schumacher, Jeffrey N. Peterson, Vito J. Mangiardi, Kevin A. Pollack and Dr. Michael S. “Mickey” Urdea. The directors will serve until our next annual meeting and until their successors are duly elected and qualified.

In making the determination of whether a member of the board is independent, our board considers, among other things, transactions and relationships between each director and his immediate family and the Company, including those reported under the caption “Related Party Transactions”. The purpose of this review is to determine whether any such relationships or transactions are material and, therefore, inconsistent with a determination that the directors are independent. On the basis of such review and its understanding of such relationships and transactions, our board affirmatively determined that each of Messrs. Peterson, Mangiardi, Pollack, and Dr. Urdea are independent and that none of them have any material relationship with us that might interfere with his or her exercise of independent judgment. We define “independent” as that term is defined in Rule 5605(a)(2) of the NASDAQ listing standards.

Board Committees

We have established an audit committee and a compensation committee. The Board intends for each committee to have its own charter prior to the effectiveness of the registration statement of which this prospectus forms a part. Upon effectiveness of the registration statement of which this prospectus forms a part, each of the board committees will have the composition and responsibilities described below.

Audit Committee

The Audit Committee was established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934. Messrs. Pollack (chairman), Mangiardi and Peterson are currently the members of the Audit Committee.

The Board of Directors has determined that Mr. Pollack qualifies as an “audit committee financial expert” as defined in Item 407(d)(5) of Regulation S-K and is “independent” as defined by SEC and OTC Market rules.

The Audit Committee operates pursuant to a written charter (the “*Audit Committee Charter*”), a current copy of which is publicly available on the investor relations portion of our website. Under the provisions of the Audit Committee Charter, the primary functions of the Audit Committee are to assist the Board of Directors with the oversight of (i) our financial reporting process, accounting functions, and internal controls, and (ii) the qualifications, independence, appointment, retention, compensation, and performance of our independent registered public accounting firm. The Audit Committee is also responsible for the establishment of “whistle-blowing” procedures, and the oversight of other compliance matters.

Compensation Committee

The Board of Directors has a Compensation Committee, consisting of Messrs. Peterson, Pollack and Mangiardi. The Compensation Committee’s duties include (i) reviewing and approving our executive compensation, (ii) reviewing the recommendations of the president and chief executive officer regarding the compensation of our executive officers, (iii) evaluating the performance of the president and chief executive officer, (iv) overseeing the administration and approval of grants of stock options and other equity awards under our equity incentive plans, and (v) recommending compensation for our board of directors and each committee thereof for review and approval by the board of directors. The Compensation Committee operates pursuant to a written charter, a current copy of which is publicly available on the investor relations portion of our website.

Involvement in Certain Legal Proceedings

To the best of our knowledge, none of our directors or executive officers has, during the past ten years:

- been convicted in a criminal proceeding or been subject to a pending criminal proceeding (excluding traffic violations and other minor offenses);
- had any bankruptcy petition filed by or against the business or property of the person, or of any partnership, corporation or business association of which he was a general partner or executive officer, either at the time of the bankruptcy filing or within two years prior to that time;
- been subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction or federal or state authority, permanently or temporarily enjoining, barring, suspending or otherwise limiting, his involvement in any type of business, securities, futures, commodities, investment, banking, savings and loan, or insurance activities, or to be associated with persons engaged in any such activity;
- been found by a court of competent jurisdiction in a civil action or by the Securities and Exchange Commission or the Commodity Futures Trading Commission to have violated a federal or state securities or commodities law, and the judgment has not been reversed, suspended, or vacated;
- been the subject of, or a party to, any federal or state judicial or administrative order, judgment, decree, or finding, not subsequently reversed, suspended or vacated (not including any settlement of a civil proceeding among private litigants), relating to an alleged violation of any federal or state securities or commodities law or regulation, any law or regulation respecting financial institutions or insurance companies including, but not limited to, a temporary or permanent injunction, order of disgorgement or restitution, civil money penalty or temporary or permanent cease-and-desist order, or removal or prohibition order, or any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or
- been the subject of, or a party to, any sanction or order, not subsequently reversed, suspended or vacated, of any self-regulatory organization (as defined in Section 3(a)(26) of the Exchange Act), any registered entity (as defined in Section 1(a)(29) of the Commodity Exchange Act), or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

Except as set forth in our discussion below in “Certain Relationships and Related Transactions,” none of our directors or executive officers has been involved in any transactions with us or any of our directors, executive officers, affiliates or associates which are required to be disclosed pursuant to the rules and regulations of the Commission.

All of the share and per share amounts set out in the tables included in this “Management” section have been adjusted in connection with the reverse stock split described elsewhere in this prospectus.

EXECUTIVE COMPENSATION

Executive Officer Compensation

Summary Compensation Table

The Summary Compensation Table below sets forth the total compensation paid or earned for the fiscal years ended December 31, 2016 and 2015 for: (i) each individual serving as our chief executive officer (“CEO”) or acting in a similar capacity during any part of fiscal 2016; and (ii) the other two most highly paid executive officers (collectively, the “Named Executive Officers”) who were serving as executive officers at the end of fiscal 2016.

<u>Name and Principal Position</u>	<u>Fiscal Year</u>	<u>Salary⁽¹⁾</u>	<u>Bonus</u>	<u>Stock Awards</u>	<u>Option Awards⁽²⁾</u>	<u>Non-Qualified Deferred Compensation Earning</u>	<u>All other Compensation⁽³⁾</u>	<u>Total</u>
Richard T. Schumacher	2016	\$308,963	\$ -	\$ -	\$ -	\$ -	\$ 40,832	\$349,795
President, CEO	2015	294,250	-	-	343,000	-	16,098	653,348
Edmund Ting, Ph.D	2016	207,100	-	-	-	-	1,261	208,361
Senior Vice President of Engineering	2015	197,600	-	-	35,672	-	1,216	234,488
Alexander Lazarev, Ph.D	2016	173,561	-	-	-	-	7,736	181,297
Vice President of Research and Development	2015	165,600	-	-	31,556	-	7,656	204,812

(1) Salary refers to base salary compensation paid through our normal payroll process. No cash bonus was paid to any named executive officer for 2016 or 2015.

(2) Amounts shown do not reflect cash received by the Named Executive Officers. Instead, the amounts shown are the aggregate grant date fair value of option awards as determined pursuant to FASB ASC 718, Compensation-Stock Compensation. Please refer to Note 2, xiii, “Accounting for Stock-Based Compensation” in the accompanying Notes to Consolidated Financial Statements for the fiscal year ended December 31, 2016, for the relevant assumptions used to determine the valuation of stock option grants.

(3) “All Other Compensation” includes our Company match to the executives’ 401(k) contribution and premiums paid on life insurance for the executives. Both of these benefits are available to all of our employees. In the case of Mr. Schumacher, “All Other Compensation” also includes \$8,474 in premiums we paid for a life insurance policy to which Mr. Schumacher’s wife is the beneficiary. In 2016, Mr. Schumacher received \$29,708 for unused earned time off. “All Other Compensation” for Dr. Lazarev includes \$6,000 paid to Dr. Lazarev in lieu of his participation in the medical benefit plan offered by the Company.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth certain information regarding outstanding stock options awards for each of the Named Executive Officers as of December 31, 2016.

Name	Option Awards		Option Exercise Price (\$)	Option Expiration Date
	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable ⁽¹⁾		
Richard T. Schumacher President, CEO	2,500	-	\$ 18.00	3/12/2019
	500	-	\$ 30.00	9/9/2021
	1,000	-	\$ 18.00	3/13/2022
	2,500	-	\$ 12.00	5/14/2023
	7,500	2,500 ⁽²⁾	\$ 9.00	9/24/2024
	13,889	27,795 ⁽³⁾	\$ 12.00	12/31/2025
Edmund Y. Ting, Ph.D Senior Vice President of Engineering	400	-	\$ 30.00	9/25/2018
	1,400	-	\$ 18.00	3/12/2019
	500	-	\$ 30.00	9/9/2021
	584	-	\$ 18.00	3/13/2022
	1,800	-	\$ 12.00	5/14/2023
	5,000	1,667 ⁽²⁾	\$ 9.00	9/24/2024
	1,445	2,889 ⁽³⁾	\$ 12.00	12/31/2025
Alexander V. Lazarev, Ph.D Vice President of Research & Development	334	-	\$ 30.00	9/25/2018
	1,167	-	\$ 18.00	3/12/2019
	500	-	\$ 30.00	9/9/2021
	500	-	\$ 18.00	3/13/2022
	1,500	-	\$ 12.00	5/14/2023
	3,750	1,250 ⁽²⁾	\$ 9.00	9/24/2024
	1,278	2,556 ⁽³⁾	\$ 12.00	12/31/2025

- (1) All unvested stock options listed in this column were granted to the Named Executive Officer pursuant to our 2005 Equity Incentive Plan, 2013 Equity Incentive Plan and 2015 Nonqualified Incentive Plan. All options expire ten years after the date of grant. Unvested stock options become fully vested and exercisable upon a change of control of our Company.
- (2) Options to purchase shares of common stock were granted on September 24, 2014 to each of the Named Executive Officers, of which 1/6th of the stock options will vest six months from the date of grant while the remainder will vest monthly over the remaining three year vesting period.
- (3) Options to purchase shares of common stock were granted on December 31, 2015 to each of the Named Executive Officers, of which the stock options will vest monthly from the date of grant over the three year vesting period.

Retirement Plan

All employees, including the named executive officers, may participate in our 401(k) Plan. Under the 401(k) Plan, employees may elect to make before tax contributions of up to 60% of their base salary, subject to current Internal Revenue Service limits. The 401(k) Plan does not permit an investment in our common stock. We match employee contributions up to 50% of the first 2% of the employee's earnings. Our contribution is 100% vested immediately.

Severance Arrangements

Each of Mr. Schumacher, Dr. Ting, Dr. Lazarev, and Dr. Lawrence, executive officers of the Company, are entitled to receive a severance payment if terminated by us without cause. The severance benefits would include a payment in an amount equal to one year of such executive officer's annualized base salary compensation plus accrued paid time off. Additionally, the officer will be entitled to receive medical and dental insurance coverage for one year following the date of termination.

Change-in-Control Arrangements

Pursuant to severance agreements with each of Mr. Schumacher, Dr. Ting, Dr. Lazarev and Dr. Lawrence, each such executive officers, is entitled to receive a change of control payment in an amount equal to one year (other than Mr. Schumacher) of such executive officer's annualized base salary compensation, accrued paid time off, and medical and dental coverage, in the event of a change of control of our Company. In the case of Mr. Schumacher, his payment is equal to two years of annualized base salary compensation, accrued paid time off, and two years of medical and dental coverage.

Pursuant to our equity incentive plans, any unvested stock options held by a named executive officer will become fully vested upon a change in control (as defined in the 2005 Equity Incentive Plan) of our Company.

Director Compensation and Benefits

The following table sets forth certain information regarding compensation earned or paid to our directors during fiscal 2016.

Name	Fees Earned or Paid			Total
	in Cash ⁽¹⁾	Stock Awards (1)	Option Awards ⁽²⁾⁽³⁾	
Vito J. Mangiardi	40,000	-	-	40,000
Jeffrey N. Peterson	60,000	-	-	60,000
Kevin A. Pollack	40,000	-	-	40,000
Michael S. Urdea, Ph. D.	50,000	-	-	50,000

Our non-employee directors receive the following compensation for service as a director:

(1) Each director currently earns a quarterly stipend of \$10,000 for attending meetings of the full board of directors (whether telephonic or in-person) and attending committee meetings in 2016. Mr. Peterson currently earns \$15,000 per quarter as chairman of the board of directors and Dr. Urdea receives \$15,000 annually for serving on the scientific advisory committee. There is no limit to the number of board of directors or committee meetings that may be called.

(2) Amounts shown do not reflect compensation received by the directors. Instead, the amounts shown are the aggregate grant date fair value as determined pursuant to FASB ASC 718, Compensation-Stock Compensation. Please refer to Note 2, xiii, "Accounting for Stock-Based Compensation" in the accompanying Notes to the Consolidated Financial Statements for the fiscal year ended December 31, 2016, for the relevant assumptions used to determine the valuation of stock option grants.

(3) The following table shows the total number of outstanding stock options as of December 31, 2016 that have been issued as director compensation.

Name	Aggregate Number of Stock Options Outstanding
Vito J. Mangiardi	8,600
Jeffrey N. Peterson	15,075
Kevin A. Pollack	8,600
Michael S. Urdea, Ph. D.	7,350

Report from Compensation Committee

General

Messrs. Peterson, Pollack and Mangiardi are currently the members of the Compensation Committee. The Compensation Committee operates pursuant to a written charter, a current copy of which is publicly available on the investor relations portion of our website. The primary functions of the Compensation Committee include (i) reviewing and approving our executive compensation, (ii) reviewing the recommendations of the president and chief executive officer regarding the compensation of our executive officers, (iii) evaluating the performance of the president and chief executive officer, (iv) overseeing the administration and approval of grants of stock options and other equity awards under our equity incentive plans, and (v) recommending compensation for our board of directors and each committee thereof for review and approval by the board of directors.

The Compensation Committee may form and delegate authority to one or more subcommittees as it deems appropriate from time to time under the circumstances (including (a) a subcommittee consisting of a single member and (b) a subcommittee consisting of at least two members, each of whom qualifies as a “non-employee director,” as such term is defined from time to time in Rule 16b-3 promulgated under the Securities Exchange Act of 1934, and an “outside director,” as such term is defined from time to time in Section 162(m) of the Internal Revenue Code of 1986, as amended, and the rules and regulations there under).

Compensation Objectives

In light of the relatively early stage of commercialization of our products, we recognize the importance of attracting and retaining key employees with sufficient experience, skills, and qualifications in areas vital to our success, such as operations, finance, sales and marketing, research and development, engineering, and individuals who are committed to our short- and long-term goals. The Compensation Committee has designed our executive compensation programs with the intent of attracting, motivating, and retaining experienced executives and, subject to our limited financial resources, rewarding them for their contributions by offering them a competitive base salary, potential for annual cash incentive bonuses, and long-term equity-based incentives, typically in the form of stock options. The Compensation Committee strives to balance the need to retain key employees with financial prudence given our history of operating losses, limited financial resources and the early stage of our commercialization.

Executive Officers and Director Compensation Process

The Compensation Committee considers and determines executive compensation according to an annual objective setting and measurement cycle. Specifically, corporate goals for the year are initially developed by our executive officers and are then presented to our board of directors and Compensation Committee for review and approval. Individual goals are intended to focus on contributions that facilitate the achievement of the corporate goals. Individual goals are first proposed by each executive officer, other than the president and CEO, then discussed by the entire senior executive management team and ultimately compiled and prepared for submission to our board of directors and the Compensation Committee, by the president and chief executive officer. The Compensation Committee sets and approves the goals for the president and chief executive officer. Generally, corporate and individual goals are set during the first quarter of each calendar year. The objective setting process is coordinated with our annual financial planning and budgeting process so our board of directors and Compensation Committee can consider overall corporate and individual objectives in the context of budget constraints and cost control considerations. Annual salary increases, bonuses, and equity awards, such as stock option grants, if any, are tied to the achievement of these corporate and individual performance goals as well as our financial position and prospects.

Under the annual performance review program, the Compensation Committee evaluates individual performance against the goals for the recently completed year. The Compensation Committee's evaluation generally occurs in the first quarter of the following year. The evaluation of each executive (other than the president and chief executive officer) begins with a written self-assessment submitted by the executive to the president and chief executive officer. The president and chief executive officer then prepares a written evaluation based on the executive's self-assessment, the president and chief executive officer's evaluation, and input from others within the Company. This process leads to a recommendation by the president and chief executive officer for a salary increase, bonus, and equity award, if any, which is then considered by the Compensation Committee. In the case of the president and chief executive officer, the Compensation Committee conducts his performance evaluation and determines his compensation, including salary increase, bonus, and equity awards, if any. We generally expect, but are not required, to implement salary increases, bonuses, and equity awards, for all executive officers, if and to the extent granted, by April 1 of each year.

Non-employee director compensation is set by our board of directors upon the recommendation of the Compensation Committee. In developing its recommendations, the Compensation Committee is guided by the following goals: compensation should be fair relative to the required services for directors of comparable companies in our industry and at our Company's stage of development; compensation should align directors' interests with the long-term interest of stockholders; the structure of the compensation should be simple, transparent, and easy for stockholders to understand; and compensation should be consistent with the financial resources, prospects, and competitive outlook for the Company.

In evaluating executive officer and director compensation, the Compensation Committee considers the practices of companies of similar size, geographic location, and market focus. In order to develop reasonable benchmark data, the Compensation Committee has referred to publicly available sources such as www.salary.com (we do not intend for this website address to be an active link or to otherwise incorporate by reference the contents of the website into this prospectus) and the BioWorld Survey. While the Compensation Committee does not believe benchmarking is appropriate as a stand-alone tool for setting compensation due to the unique aspects of our business objectives and current stage of development, the Compensation Committee generally believes that gathering this compensation information is an important part of its compensation-related decision making process.

The Compensation Committee has the authority to hire and fire advisors and compensation consultants as needed and approve their fees. No advisors or compensation consultants were hired or fired in fiscal 2016. The Compensation Committee is also authorized to delegate any of its responsibilities to sub committees or individuals as it deems appropriate. The Compensation Committee did not delegate any of its responsibilities in fiscal 2016.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information as of August 4, 2017 concerning the beneficial ownership of Common Stock for: (i) each director and director nominee, (ii) each named executive officer in the Summary Compensation Table under "Executive Compensation" below, (iii) all executive officers and directors as a group, and (iv) each person (including any "group" as that term is used in Section 13(d) (3) of the Exchange Act) known by us to be the beneficial owner of 5% or more of our Common Stock. Except as indicated below, the address for each of the persons below who are beneficial owners of 5% or more of our Common Stock is our corporate address at 14 Norfolk Avenue, South Easton, MA 02375.

Beneficial ownership has been determined in accordance with the rules of the SEC and is calculated based on 1,101,884 shares of our Common Stock issued and outstanding as of August 4, 2017 and reflects the 1-for-30 reverse stock split of our common stock that took effect on June 5, 2017. Shares of Common Stock subject to options, warrants, preferred stock or other securities convertible into Common Stock that are currently exercisable or convertible, or exercisable or convertible within 60 days of August 4, 2017 are deemed outstanding for computing the percentage of the person holding the option, warrant, preferred stock, or convertible security but are not deemed outstanding for computing the percentage of any other person.

Except as indicated by the footnotes below, we believe, based on the information furnished to it, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of Common Stock that they beneficially own.

Name of Beneficial Owner	Amount and Nature of Beneficial Ownership (1)	Percent of Class
Richard T. Schumacher (2)	91,005	7.82%
Jeffrey N. Peterson (3)	42,448	3.75%
Kevin A. Pollack (4)	37,254	3.32%
Michael S. Urdea (5)	29,832	2.66%
Vito J. Mangiardi (6)	24,605	2.21%
Edmund Y. Ting, Ph.D. (7)	15,612	1.40%
Alexander V. Lazarev, Ph.D. (8)	12,482	1.12%
All other officers	15,475	1.40%
All Executive Officers and Directors as a Group (9)	268,713	20.88%

- 1) The terms of our Series D Convertible Preferred Stock and Series D warrants; Series G Convertible Preferred Stock; Series H Convertible Preferred Stock; Series J Convertible Preferred Stock; Series K Convertible Preferred Stock, and various Common Stock warrants issued in connection with our fundraising efforts contain a limitation on conversion which prevents the holder from converting shares of Series D, Series G, Series H, Series J, and Series K Convertible Preferred Stock into, or exercise of the warrants and various Common Stock warrants for, shares of Common Stock if, after giving effect to the conversion or exercise, as the case may be, the holder would beneficially own more than 4.99% of the outstanding shares of Common Stock. The holder may elect to increase this limitation to 9.99%, 14.99% or 19.99%, upon not less than 61 days prior written notice to us.
- 2) Includes (i) 44,973 shares of Common Stock issuable upon exercise of options; (ii) 2,000 shares of Common Stock issuable upon conversion of Series G Convertible Preferred Stock; (iii) 2,100 shares of Common Stock issuable upon conversion of Series J Convertible Preferred Stock; (iv) 2,620 shares of Common Stock issuable upon conversion of Convertible Debentures; (v) 9,352 shares of Common Stock issuable upon the exercise of warrants; and (vi) 29,767 shares of Common Stock. Does not include 672 shares of Common Stock held by Mr. Schumacher's minor son as his wife exercises all voting and investment control over such shares.
- 3) Includes (i) 18,828 shares of Common Stock issuable upon exercise of options; (ii) 5,500 shares of Common Stock issuable upon conversion of Convertible Debentures; (iii) 5,034 shares of Common Stock issuable upon the exercise of warrants; and (iv) 13,086 shares of Common Stock.
- 4) Includes (i) 10,852 shares of Common Stock issuable upon exercise of options; (ii) 6,112 shares of Common Stock issuable upon conversion of Convertible Debentures; (iii) 4,779 shares of Common Stock issuable upon the exercise of warrants; and (iv) 15,511 shares of Common Stock.
- 5) Includes (i) 8,768 shares of Common Stock issuable upon exercise of options; (ii) 6,024 shares of Common Stock issuable upon conversion of Convertible Debentures; (iii) 3,073 shares of Common Stock issuable upon the exercise of warrants; and (iv) 11,967 shares of Common Stock.
- 6) Includes (i) 10,852 shares of Common Stock issuable upon exercise of options; (ii) 1,310 shares of Common Stock issuable upon conversion of Convertible Debentures; (iii) 930 shares of Common Stock issuable upon the exercise of warrants; and (iv) 11,513 shares of Common Stock.
- 7) Includes (i) 14,796 shares of Common Stock issuable upon exercise of options; and (ii) 816 shares of Common Stock.
- 8) Includes (i) 12,071 shares of Common Stock issuable upon exercise of options; and (ii) 411 shares of Common Stock.
- 9) Includes (i) 135,850 shares of Common Stock issuable upon exercise of options; (ii) 2,000 shares of Common Stock issuable upon conversion of Series G Convertible Preferred Stock; (iii) 2,100 shares of Common Stock issuable upon conversion of Series J Convertible Preferred Stock (iii) 21,566 shares of Common Stock issuable upon conversion of Convertible Debentures; (iv) 23,168 shares of Common Stock issuable upon the exercise of warrants; and (v) 83,836 shares of Common Stock.

Equity Compensation Plan Information

We maintain a number of equity compensation plans for employees, officers, directors and other entities and individuals whose efforts contribute to our success. The table below sets forth certain information as of our fiscal year ended December 31, 2016 regarding the shares of our common stock available for grant or granted under our equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders (1)	106,709	\$ 12.79	4,693,292
Equity compensation plans adopted by the Board of Directors (2)	68,934	12.00	4,931,067

(1) Includes the following plans: 2005 Equity Incentive Plan and 2013 Equity Incentive Plan.

(2) Includes the following plan: 2015 Nonqualified Stock Option Plan.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a summary of transactions since January 1, 2016 to which we have been or will be a party in which the amount involved exceeded or will exceed \$17,000 (one percent of the average of our total assets at year-end for our last two completed fiscal years) and in which any of our directors, executive officers or beneficial holders of more than 5% of any class of our capital stock, or any immediate family member of, or person sharing a household with, any of these individuals, had or will have a direct or indirect material interest, other than compensation arrangements that are described under the section of this prospectus captioned "Executive compensation."

During the year ended December 31, 2016, we received advances from certain officers of ours amounting to \$20,000 and we repaid the loans. These advances were non-interest bearing and were payable on demand.

On March 10, 2016, a relative of Mr. Schumacher invested \$50,000 into the Company's 2015/2016 convertible debenture financing. The loan remains outstanding. The Holder was paid a 10% original investment discount ("OID") for the first year, and will earn 10% annual interest during the second year. The loan can be converted into common stock at any time by the Holder, at a fixed price of \$8.40 per share. The loan is due two years after the loan origination date.

On March 23, 2016, Mr. Pollack invested \$46,549 into the Company's 2015/2016 convertible debenture financing. The loan remains outstanding. The Holder was paid a 10% OID for the first year, and will earn 10% annual interest during the second year. The loan can be converted into common stock at any time by the Holder, at a fixed price of \$8.40 per share. The loan is due two years after the loan origination date.

On March 31, 2016, Mr. Peterson invested \$42,000 into the Company's 2015/2016 convertible debenture financing. The loan remains outstanding. The Holder was paid a 10% OID for the first year, and will earn 10% annual interest during the second year. The loan can be converted into common stock at any time by the Holder, at a fixed price of \$8.40 per share. The loan is due two years after the loan origination date.

On March 31, 2016, Mr. Mangiardi invested \$10,000 into the Company's 2015/2016 convertible debenture financing. The loan remains outstanding. The Holder was paid a 10% OID for the first year, and will earn 10% annual interest during the second year. The loan can be converted into common stock at any time by the Holder, at a fixed price of \$8.40 per share. The loan is due two years after the loan origination date.

On March 31, 2016, Mr. Schumacher invested \$20,000 into the Company's 2015/2016 convertible debenture financing. The loan remains outstanding. The loan was paid a 10% OID for the first year, and will earn 10% annual interest during the second year. The loan can be converted into common stock at any time by the Holder, at a fixed price of \$8.40 per share. The loan is due two years after the loan origination date.

On March 31, 2016, a relative of Mr. Schumacher invested \$30,000 into the Company's 2015/2016 convertible debenture financing. The loan remains outstanding. The loan was paid a 10% OID for the first year, and will earn 10% annual interest during the second year. The loan can be converted into common stock at any time by the Holder, at a fixed price of \$8.40 per share. The loan is due two years after the loan origination date.

On March 31, 2016, Dr. Urdea invested \$46,000 into the Company's 2015/2016 convertible debenture financing. The loan remains outstanding. The loan was paid a 10% OID for the first year, and will earn 10% annual interest during the second year. The loan can be converted into common stock at any time by the Holder, at a fixed price of \$8.40 per share. The loan is due two years after the loan origination date.

DESCRIPTION OF CAPITAL STOCK

Authorized Capital

As of December 31, 2016, we were authorized to issue 100,000,000 shares of common stock, \$0.01 par value, and 1,000,000 shares of preferred stock, \$0.01 par value. Of the 1,000,000 shares of preferred stock, 20,000 shares were designated as Series A Junior Participating Preferred Stock, 313,960 shares as Series A Convertible Preferred Stock, 279,256 shares as Series B Convertible Preferred Stock, 88,098 shares as Series C Convertible Preferred Stock, 850 shares as Series D Convertible Preferred Stock, 500 shares as Series E Convertible Preferred Stock, 240,000 shares as Series G Convertible Preferred Stock, 10,000 shares as Series H Convertible Preferred Stock, 21 shares as Series H2 Convertible Preferred Stock, 6,250 shares as Series J Convertible Preferred Stock and 15,000 shares as Series K Convertible Preferred Stock.

As of December 31, 2016, there were 1,033,328 shares of common stock issued and outstanding. Similarly, at such time, there were no shares of Series A Junior Participating Preferred Stock; Series A Convertible Preferred Stock; Series B Convertible Preferred Stock; Series C Convertible Preferred Stock; Series E Convertible Preferred Stock. As of December 31, 2016 there were 300 shares of Series D Convertible Preferred Stock issued and outstanding and convertible into 25,000 shares of common stock, 86,570 shares of Series G Convertible Preferred Stock issued and outstanding convertible into 28,857 shares of common stock, 10,000 shares of Series H Convertible Preferred Stock issued and outstanding convertible into 33,334 shares of common stock, 21 shares of Series H2 Convertible Preferred Stock issued and outstanding convertible into 70,000 shares of common stock, 3,521 shares of Series J Convertible Preferred Stock issued and outstanding convertible into 117,367 shares of common stock, and 6,816 shares of Series K Convertible Preferred Stock issued and outstanding convertible into 227,200 shares of common stock.

The transfer agent and registrar for our common stock is Computershare Trust Company.

Approximate Number of Equity Security Holders

As of August 4, 2017, there were approximately 85 stockholders of record. Because shares of our common stock are held by depositaries, brokers and other nominees, the number of beneficial holders of our shares is substantially larger than the number of stockholders of record.

Dividends

We have never declared or paid any cash dividends on common stock and do not plan to pay any cash dividends on common stock in the foreseeable future.

As of December 31, 2016, dividends issued or to be issued on convertible preferred stock for the years ended December 31, 2016 and 2015 are outlined in the table below.

Dividends paid in common stock or cash			Dividends payable		
For The Year Ended December 31,			For The Year Ended December 31,		
	2016	2015		2016	2015
Series D	\$ -	\$ -	Series D	\$ -	\$ -
Series E	-	-	Series E	-	-
Series G	-	-	Series G	1,200	1,200
Series H	-	-	Series H	-	-
Series H2	-	-	Series H2	-	-
Series J	442	-	Series J	83,484	83,926
Series K	63,413	14,894	Series K	108,620	170,607
	<u>\$ 63,855</u>	<u>\$ 14,894</u>		<u>\$ 193,304</u>	<u>\$ 255,733</u>

SHARES ELIGIBLE FOR FUTURE SALE

Future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of outstanding options and warrants, or the anticipation of these sales, could adversely affect prevailing market prices from time to time and could impair our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of _____, 2017, after giving pro forma effect to the closing of this offering we will have _____ shares of common stock outstanding, assuming (1) no exercise of the underwriters' option to purchase additional shares of common stock and (2) no exercise of outstanding options or warrants. Of those shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our "affiliates," as that term is defined in Rule 144 under the Securities Act, or Rule 144, may only be sold in compliance with the limitations described below.

Rule 144

In general, under Rule 144, any person who is not our affiliate and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell shares without restriction, subject to the availability of current public information about us. In addition, under Rule 144, any person who is not an affiliate of ours and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares without regard to whether current public information about us is available. A person who is our affiliate or who was our affiliate at any time during the preceding three months, and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of shares within any three-month period that does not exceed the greater of:

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

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

Warrants Offered Hereby

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

Exercisability. The warrants are exercisable immediately upon issuance and at any time up to the date that is five years from the date of issuance. 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 accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). Unless otherwise specified in the warrant, the 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.

Cashless Exercise. In the event that a registration statement covering shares of common stock underlying the warrants, or an exemption from registration, is not available for the resale of such shares of common stock underlying the warrants, the holder may, in its sole discretion, exercise the warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, elect instead to receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. In no event shall we be required to make any cash payments or net cash settlement to the registered holder in lieu of issuance of common stock underlying the warrants.

Certain Adjustments. The exercise price and the number of shares of common stock purchasable upon the exercise of the warrants are subject to adjustment upon the occurrence of specific events, including stock dividends, stock splits, combinations and reclassifications of our common stock.

Transferability. Subject to applicable laws, the warrants may be transferred at the option of the holders upon surrender of the warrants to us together with the appropriate instruments of transfer.

Warrant Agent and Exchange Listing. The warrants will be issued in registered form under a warrant agency agreement between Computershare Trust Company, as warrant agent, and us.

Fundamental Transactions. If, at any time while the warrants are outstanding, (1) we consolidate or merge with or into another corporation and we are not the surviving corporation, (2) we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets, (3) any purchase offer, tender offer or exchange offer (whether by us or another individual or entity) is completed pursuant to which holders of our shares of common stock are permitted to sell, tender or exchange their shares of common stock for other securities, cash or property and has been accepted by the holders of 50% or more of our outstanding shares of common stock, (4) we effect any reclassification or recapitalization of our shares of common stock or any compulsory share exchange pursuant to which our shares of common stock are converted into or exchanged for other securities, cash or property, or (5) we consummate a stock or share purchase agreement or other business combination with another person or entity whereby such other person or entity acquires more than 50% of our outstanding shares of common stock, each a "Fundamental Transaction," then upon any subsequent exercise of the warrants, the holder thereof will have the right to receive the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of the number of warrant shares then issuable upon exercise of the warrant, and any additional consideration payable as part of the 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.

Governing Law. The warrants and the warrant agency agreement are governed by New York law.

UNDERWRITING

Joseph Gunnar & Co., LLC is acting as representative of the underwriters (the “Representative”). Subject to the terms and conditions of an underwriting agreement between us and the Representative, we have agreed to sell to each underwriter named below, and each underwriter named below has severally agreed to purchase, at the public offering price less the underwriting discounts set forth on the cover page of this prospectus, the number of shares of common stock and warrants listed next to its name in the following table:

Name of Underwriter	Number of Shares	Number of Warrants
Joseph Gunnar & Co., LLC		
Total		

The underwriters are committed to purchase all the shares of common stock and warrants offered by us if they purchase any shares of common stock and warrants. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated. The underwriters are not obligated to purchase the shares of common stock and/or warrants covered by the underwriters’ over-allotment option described below. The underwriters are offering the shares of common stock and warrants, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer’s certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Discounts and Commissions

The underwriters propose initially to offer the shares of common stock and warrants to the public at the public offering price set forth on the cover page of this prospectus and to dealers at those prices less a concession not in excess of \$ _____ per share of common stock and warrant. If all of the shares of common stock and warrants offered by us are not sold at the public offering price, the underwriters may change the offering price and other selling terms by means of a supplement to this prospectus.

The following table shows the public offering price, underwriting discounts and commissions and proceeds before expenses to us. The information assumes either no exercise or full exercise of the over-allotment option we granted to the representatives of the underwriters.

	Per Combined Share and Warrant	Total Without Over-Allotment Option	Total With Full Over-Allotment Option
Public offering price	\$	\$	\$
Underwriting discount and commission (7%)	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

We have agreed to pay a non-accountable expense allowance to the representative of the underwriters equal to 1% of the gross proceeds received at the closing of the offering. The non-accountable expense allowance of 1% is not payable with respect to the shares sold upon exercise of the underwriters’ over-allotment option. We have paid an expense deposit of \$25,000 to the representative, which will be applied against the out-of-pocket accountable expenses that will be paid by us to the underwriters in connection with this offering, and will be reimbursed to us to the extent not actually incurred in compliance with FINRA Rule 5110(f)(2)(C).

We have also agreed to pay the representative’s expenses relating to the offering, including (a) all actual filing fees incurred in connection with the review of this offering by the Financial Industry Regulatory Authority, or FINRA; (b) all fees, expenses and disbursements relating to background checks of our officers and directors in an amount not to exceed \$15,000 in the aggregate; (c) the costs associated with bound volumes of the public offering materials as well as commemorative mementos and lucite tombstones not to exceed \$2,000; (d) the fees and expenses of the representative’s legal counsel not to exceed \$75,000; (e) \$29,500 for the underwriters’ use of Ipreo’s book-building, prospectus tracking and compliance software for this offering; and (f) up to \$20,000 of the representative’s actual accountable road show expenses for the offering.

The total estimated expenses of the offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding underwriting discounts, commissions and expenses, are approximately \$272,643 and are payable by us.

Over-Allotment Option

We have granted a 45-day option to the representative of the underwriters to purchase up to 416,667 additional shares of our common stock at a public offering price of \$ ___ per share and/or warrants to purchase 208,333 shares of our common stock at a public offering price of \$0.01 per warrant, solely to cover over-allotments, if any. The underwriters may exercise this option for 45 days from the date of this prospectus solely to cover sales of shares of common stock and/or warrants by the underwriters in excess of the total number of shares of common stock and/or warrants set forth in the table above. If any of these additional shares and/or warrants are purchased, the underwriters will offer the additional shares and/or warrants on the same terms as those on which the shares and warrants are being offered. We will pay the expenses associated with the exercise of the over-allotment option.

Representatives' Warrants

We have agreed to issue to the representative the representative's warrants to purchase up to ____ shares of common stock (5% of the shares of common stock and shares of common stock underlying warrants sold in this offering). We are registering hereby the issuance of the representative's warrants and the shares of common stock issuable upon exercise of the warrants. The representative's warrants will be exercisable at any time, and from time to time, in whole or in part, during the four-year period commencing one year from the effective date of the registration statement at a per share exercise price equal to 125% of the public offering price per share of common stock in the offering. The representative's warrants and the shares of common stock underlying the warrants have been deemed compensation by FINRA and are, therefore, subject to a 180-day lock-up pursuant to Rule 5110(g)(1) of FINRA. The representatives (or permitted assignees under the Rule) will not sell, transfer, assign, pledge or hypothecate these warrants or the securities underlying these warrants, nor will it engage in any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of these warrants or the underlying securities for a period of 180 days after the effective date. The exercise price and number of shares of common stock issuable upon exercise of the warrants may be adjusted in certain circumstances including in the event of a stock dividend, extraordinary cash dividend or our recapitalization, reorganization, merger or consolidation. However, the warrant exercise price or underlying shares will not be adjusted for issuances of shares of common stock at a price below the warrant exercise price.

Lock-Up Agreements

Pursuant to "lock-up" agreements, we, our executive officers and directors, and any other 5% or greater holder of our outstanding common stock, have agreed, without the prior written consent of the Representative not to directly or indirectly, offer to sell, sell, pledge or otherwise transfer or dispose of any of shares of (or enter into any transaction or device that is designed to, or could be expected to, result in the transfer or disposition by any person at any time in the future of) our common stock, enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of shares of our common stock, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible into or exercisable or exchangeable for common stock or any other securities of ours or publicly disclose the intention to do any of the foregoing, subject to customary exceptions, for a period of (i) six month after the date of this prospectus in the case of our directors and officers and (ii) three months after the date of this prospectus in the case of the Company and any other 5% or greater holder of our outstanding securities.

Right of First Refusal

Until eighteen (18) months from the effective date of this registration statement, the representative shall have an irrevocable right of first refusal to act as sole investment banker, sole book-runner, and/or sole placement agent, at the Representative's sole discretion, for each and every future public and private equity and debt offering, including all equity linked financings on terms customary to the representative. The representative shall have the sole right to determine whether or not any other broker-dealer shall have the right to participate in any such offering and the economic terms of any such participation. The representative will not have more than one opportunity to waive or terminate the right of first refusal in consideration of any payment or fee.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities that may be incurred in connection with this offering, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make for these liabilities.

OTCQB and NASDAQ

Our shares of common are quoted on the OTCQB under the symbol "PBIO." We intend to apply to list our common stock and warrants on The NASDAQ under the symbols "PBIO" and "PBIOW", respectively, prior to the completion of this offering. No assurance can be given that such listings will be approved; however, it is a condition of the underwriters' obligation that our shares of common stock and warrants have been approved for listing on The NASDAQ.

Price Stabilization, Short Positions and Penalty Bids

In order to facilitate the offering of our securities, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our securities. In connection with the offering, the underwriters may purchase and sell our securities in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares of securities than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of securities in the offering. The underwriters may close out any covered short position by either exercising the over-allotment option or purchasing shares of securities in the open market. In determining the source of shares of securities to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. "Naked" short sales are sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our securities in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of securities made by the underwriters in the open market before the completion of the offering.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales 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 our securities. As result, the price of our securities may be higher than the price that might otherwise exist in the open market.

The underwriters have advised us that, pursuant to Regulation M under the Exchange Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of our securities, including the imposition of penalty bids. This means that if the representative of the underwriters purchases securities in the open market in stabilizing transactions or to cover short sales, the representative can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them. The underwriters make no representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our securities. In addition, neither we nor the underwriters make any representation that the underwriters will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Offer, Sale and Distribution of Shares

A prospectus in electronic format may be made available on the websites maintained by one or more underwriters or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares of securities to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representative to underwriters and selling group members that may make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' websites and any information contained in any other website maintained by the underwriters is not part of this prospectus or the registration statement of which this prospectus forms a part.

Other Relationships

From time to time, certain of the underwriters and 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 of the underwriters for any further services.

Offer Restrictions Outside the United States

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Australia

This prospectus is not a disclosure document under Chapter 6D of the Australian Corporations Act, has not been lodged with the Australian Securities and Investments Commission and does not purport to include the information required of a disclosure document under Chapter 6D of the Australian Corporations Act. Accordingly, (i) the offer of the securities under this prospectus is only made to persons to whom it is lawful to offer the securities without disclosure under Chapter 6D of the Australian Corporations Act under one or more exemptions set out in section 708 of the Australian Corporations Act, (ii) this prospectus is made available in Australia only to those persons as set forth in clause (i) above, and (iii) the offeree must be sent a notice stating in substance that by accepting this offer, the offeree represents that the offeree is such a person as set forth in clause (i) above, and, unless permitted under the Australian Corporations Act, agrees not to sell or offer for sale within Australia any of the securities sold to the offeree within 12 months after its transfer to the offeree under this prospectus.

Canada

The securities may be sold in Canada 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 securities 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. Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

China

The information in this document does not constitute a public offer of the securities, whether by way of sale or subscription, in the People's Republic of China (excluding, for purposes of this paragraph, Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan). The securities may not be offered or sold directly or indirectly in the PRC to legal or natural persons other than directly to "qualified domestic institutional investors."

European Economic Area — Belgium, Germany, Luxembourg and Netherlands

The information in this document has been prepared on the basis that all offers of securities will be made pursuant to an exemption under the Directive 2003/71/EC (“Prospectus Directive”), as implemented in Member States of the European Economic Area (each, a “Relevant Member State”), from the requirement to produce a prospectus for offers of securities.

An offer to the public of securities has not been made, and may not be made, in a Relevant Member State except pursuant to one of the following exemptions under the Prospectus Directive as implemented in that Relevant Member State:

- (a) to legal entities that 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 that has two or more of (i) an average of at least 250 employees during its last fiscal year; (ii) a total balance sheet of more than €43,000,000 (as shown on its last annual unconsolidated or consolidated financial statements) and (iii) an annual net turnover of more than €50,000,000 (as shown on its last annual unconsolidated or consolidated financial statements);
- (c) to fewer than 100 natural or legal persons (other than qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive) subject to obtaining the prior consent of ours or any underwriter for any such offer; or
- (d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall result in a requirement for the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive.

France

This document is not being distributed in the context of a public offering of financial securities (*offre au public de titres financiers*) in France within the meaning of Article L.411-1 of the French Monetary and Financial Code (*Code monétaire et financier*) and Articles 211-1 et seq. of the General Regulation of the French Autorité des marchés financiers (“AMF”). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France.

This document and any other offering material relating to the securities have not been, and will not be, submitted to the AMF for approval in France and, accordingly, may not be distributed or caused to be distributed, directly or indirectly, to the public in France. Such offers, sales and distributions have been and shall only be made in France to (i) qualified investors (*investisseurs qualifiés*) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-1 to D.411-3, D. 744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation and/or (ii) a restricted number of non-qualified investors (*cercle restreint d’investisseurs*) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-4, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation.

Pursuant to Article 211-3 of the General Regulation of the AMF, investors in France are informed that the securities cannot be distributed (directly or indirectly) to the public by the investors otherwise than in accordance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 to L.621-8-3 of the French Monetary and Financial Code.

Ireland

The information in this document does not constitute a prospectus under any Irish laws or regulations and this document has not been filed with or approved by any Irish regulatory authority as the information has not been prepared in the context of a public offering of securities in Ireland within the meaning of the Irish Prospectus (Directive 2003/71/EC) Regulations 2005 (the “Prospectus Regulations”). The securities have not been offered or sold, and will not be offered, sold or delivered directly or indirectly in Ireland by way of a public offering, except to (i) qualified investors as defined in Regulation 2(l) of the Prospectus Regulations and (ii) fewer than 100 natural or legal persons who are not qualified investors.

Israel

The securities offered by this prospectus have not been approved or disapproved by the Israeli Securities Authority (the ISA), nor have such securities been registered for sale in Israel. The shares may not be offered or sold, directly or indirectly, to the public in Israel, absent the publication of a prospectus. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing the prospectus; nor has it authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the securities being offered. Any resale in Israel, directly or indirectly, to the public of the securities offered by this prospectus is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.

Italy

The offering of the securities in the Republic of Italy has not been authorized by the Italian Securities and Exchange Commission (Commissione Nazionale per le Società e la Borsa, “CONSOB” pursuant to the Italian securities legislation and, accordingly, no offering material relating to the securities may be distributed in Italy and such securities may not be offered or sold in Italy in a public offer within the meaning of Article 1.1(t) of Legislative Decree No. 58 of 24 February 1998 (“Decree No. 58”), other than:

- to Italian qualified investors, as defined in Article 100 of Decree no.58 by reference to Article 34-ter of CONSOB Regulation no. 11971 of 14 May 1999 (“Regulation no. 11971”) as amended (“Qualified Investors”); and
- in other circumstances that are exempt from the rules on public offer pursuant to Article 100 of Decree No. 58 and Article 34-ter of Regulation No. 11971 as amended

Any offer, sale or delivery of the securities or distribution of any offer document relating to the securities in Italy (excluding placements where a Qualified Investor solicits an offer from the issuer) under the paragraphs above must be:

- made by investment firms, banks or financial intermediaries permitted to conduct such activities in Italy in accordance with Legislative Decree No. 385 of 1 September 1993 (as amended), Decree No. 58, CONSOB Regulation No. 16190 of 29 October 2007 and any other applicable laws; and
- in compliance with all relevant Italian securities, tax and exchange controls and any other applicable laws.

Any subsequent distribution of the securities in Italy must be made in compliance with the public offer and prospectus requirement rules provided under Decree No. 58 and the Regulation No. 11971 as amended, unless an exception from those rules applies. Failure to comply with such rules may result in the sale of such securities being declared null and void and in the liability of the entity transferring the securities for any damages suffered by the investors.

Japan

The securities have not been and will not be registered under Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948), as amended (the “FIEL”) pursuant to an exemption from the registration requirements applicable to a private placement of securities to Qualified Institutional Investors (as defined in and in accordance with Article 2, paragraph 3 of the FIEL and the regulations promulgated thereunder). Accordingly, the securities may not be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan other than Qualified Institutional Investors. Any Qualified Institutional Investor who acquires securities may not resell them to any person in Japan that is not a Qualified Institutional Investor, and acquisition by any such person of securities is conditional upon the execution of an agreement to that effect.

Portugal

This document is not being distributed in the context of a public offer of financial securities (oferta pública de valores mobiliários) in Portugal, within the meaning of Article 109 of the Portuguese Securities Code (Código dos Valores Mobiliários). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in Portugal. This document and any other offering material relating to the securities have not been, and will not be, submitted to the Portuguese Securities Market Commission (Comissão do Mercado de Valores Mobiliários) for approval in Portugal and, accordingly, may not be distributed or caused to be distributed, directly or indirectly, to the public in Portugal, other than under circumstances that are deemed not to qualify as a public offer under the Portuguese Securities Code. Such offers, sales and distributions of securities in Portugal are limited to persons who are “qualified investors” (as defined in the Portuguese Securities Code). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Sweden

This document has not been, and will not be, registered with or approved by Finansinspektionen (the Swedish Financial Supervisory Authority). Accordingly, this document may not be made available, nor may the securities be offered for sale in Sweden, other than under circumstances that are deemed not to require a prospectus under the Swedish Financial Instruments Trading Act (1991:980) (Sw. lag (1991:980) om handel med finansiella instrument). Any offering of securities in Sweden is limited to persons who are “qualified investors” (as defined in the Financial Instruments Trading Act). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (“SIX”) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering material relating to the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority (FINMA).

This document is personal to the recipient only and not for general circulation in Switzerland.

United Arab Emirates

Neither this document nor the securities have been approved, disapproved or passed on in any way by the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates, nor have we received authorization or licensing from the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates to market or sell the securities within the United Arab Emirates. This document does not constitute and may not be used for the purpose of an offer or invitation. No services relating to the securities, including the receipt of applications and/or the allotment or redemption of such shares, may be rendered within the United Arab Emirates by us.

No offer or invitation to subscribe for securities is valid or permitted in the Dubai International Financial Centre.

United Kingdom

Neither the information in this document nor any other document relating to the offer has been delivered for approval to the Financial Services Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended (“FSMA”)) has been published or is intended to be published in respect of the securities. This document is issued on a confidential basis to “qualified investors” (within the meaning of section 86(7) of FSMA) in the United Kingdom, and the securities may not be offered or sold in the United Kingdom by means of this document, any accompanying letter or any other document, except in circumstances which do not require the publication of a prospectus pursuant to section 86(1) FSMA. This document should not be distributed, published or reproduced, in whole or in part, nor may its contents be disclosed by recipients to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) received in connection with the issue or sale of the securities has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of FSMA does not apply to us.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 (“FPO”), (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO or (iii) to whom it may otherwise be lawfully communicated (together “relevant persons”). The investments to which this document relates are available only to, and any invitation, offer or agreement to purchase will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

LEGAL MATTERS

The validity of the securities offered hereby has been passed upon for us by Lucosky Brookman LLP. Certain legal matters in connection with this offering have been passed upon for the underwriters by Loeb & Loeb LLP, New York, New York.

EXPERTS

Our consolidated balance sheets as of December 31, 2016 and 2015 and the related consolidated statements of operations, comprehensive loss, changes in stockholders’ deficit, and cash flows for the years then ended have been audited by MaloneBailey LLP, an independent registered public accounting firm, as set forth in its report appearing herein and are included in reliance upon such report given on the authority of such firm 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 under the Securities Act with respect to the securities offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information in the registration statement and the exhibits of the registration statement. For further information with respect to us and the securities being offered under this prospectus, we refer you to the registration statement, including the exhibits and schedules thereto.

You may read and copy the registration statement of which this prospectus is a part at the SEC’s Public Reference Room, which is located at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of the registration statement by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC’s Public Reference Room. In addition, the SEC maintains an Internet web site, which is located at www.sec.gov, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus is a part at the SEC’s Internet web site. We are subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements and other information with the SEC.

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY

INDEX TO FINANCIAL STATEMENTS

	Page
<u>Report of Independent Registered Public Accounting Firm</u>	F-2
<u>Consolidated Balance Sheets as of December 31, 2016 and 2015</u>	F-3
<u>Consolidated Statements of Operations for the Years Ended December 31, 2016 and 2015</u>	F-4
<u>Consolidated Statements of Comprehensive Loss for the Years Ended December 31, 2016 and 2015</u>	F-5
<u>Consolidated Statements of Changes in Stockholders' Deficit for the Years Ended December 31, 2016 and 2015</u>	F-6
<u>Consolidated Statements of Cash Flows for the Years Ended December 31, 2016 and 2015</u>	F-8
<u>Notes to Consolidated Financial Statements</u>	F-9

The accompanying financial statements give effect to a 1-for-30 reverse stock split of the common stock of Pressure BioSciences, Inc., which took effect on June 5, 2017.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Pressure BioSciences, Inc. and Subsidiary
South Easton, Massachusetts

We have audited the consolidated balance sheets of Pressure BioSciences, Inc. and Subsidiary (collectively, the “Company”) as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, changes in stockholders’ deficit, and cash flows for the years then ended. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these financial statements based on our 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 an audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Pressure BioSciences, Inc. and Subsidiary as of December 31, 2016 and 2015, and the results of their operations and their cash flows for the years then ended 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 consolidated financial statements, the Company has a working capital deficit and has incurred recurring net losses and negative cash flows from operations. These conditions raise substantial doubt about its ability to continue as a going concern. Management’s plans regarding those matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ MaloneBailey LLP

Houston, Texas

March 22, 2017, except for Note 10 as to which the date is June 16, 2017

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2016 AND 2015

<u>ASSETS</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
CURRENT ASSETS		
Cash and cash equivalents	\$ 138,363	\$ 116,783
Accounts receivable, net of \$28,169 reserve at December 31, 2016 and \$0 at December 31, 2015	281,320	113,256
Inventories, net of \$20,000 reserve at December 31, 2016 and \$50,000 at December 31, 2015	905,284	1,038,371
Prepaid income taxes	7,405	7,381
Prepaid expenses and other current assets	258,103	213,926
Total current assets	1,590,475	1,489,717
Investment in available-for-sale securities	25,865	294,522
Property and equipment, net	9,413	20,149
TOTAL ASSETS	\$ 1,625,753	\$ 1,804,388
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES		
Accounts payable	\$ 407,249	\$ 941,389
Accrued employee compensation	249,596	176,009
Accrued professional fees and other	956,884	821,088
Deferred revenue	159,654	140,878
Revolving note payable, net of unamortized debt discounts of \$637,030 and \$0, respectively	612,970	-
Convertible debt, net of unamortized discounts of \$2,235,839 and \$0, respectively	4,005,702	100,000
Other debt, net of unamortized discounts of \$380 and \$3,041, respectively	238,157	151,628
Warrant derivative liabilities	1,685,108	3,295,976
Conversion option derivative liabilities	951,059	3,940,791
Total current liabilities	9,266,379	9,567,759
LONG TERM LIABILITIES		
Related party convertible debt, net of unamortized debt discounts of \$165,611 and \$0, respectively	125,523	-
Convertible debt, net of unamortized discounts of \$740,628 and \$5,223,658, respectively	529,742	177,342
Deferred revenue	87,527	36,935
TOTAL LIABILITIES	10,009,171	9,782,036
COMMITMENTS AND CONTINGENCIES (Note 7)		
STOCKHOLDERS' DEFICIT		
Series D Convertible Preferred Stock, \$.01 par value; 850 shares authorized; 300 shares issued and outstanding on December 31, 2016 and 2015, respectively (Liquidation value of \$300,000)	3	3
Series G Convertible Preferred Stock, \$.01 par value; 240,000 shares authorized; 86,570 shares issued and outstanding on December 31, 2016 and 2015, respectively	866	866
Series H Convertible Preferred Stock, \$.01 par value; 10,000 shares authorized; 10,000 shares issued and outstanding on December 31, 2016 and 2015, respectively	100	100
Series H2 Convertible Preferred Stock, \$.01 par value; 21 shares authorized; 21 shares issued and outstanding on December 31, 2016 and 2015, respectively	-	-
Series J Convertible Preferred Stock, \$.01 par value; 6,250 shares authorized; 3,521 and 3,546 shares issued and outstanding on December 31, 2016 and 2015, respectively	35	36
Series K Convertible Preferred Stock, \$.01 par value; 15,000 shares authorized; 6,816 and 11,416 shares issued and outstanding on December 31, 2016 and 2015, respectively	68	114
Common stock, \$.01 par value; 100,000,000 shares authorized; 1,033,328 and 766,830 shares issued and outstanding on December 31, 2016 and 2015, respectively	10,333	7,668
Warrants to acquire common stock	6,325,102	5,416,681
Additional paid-in capital	27,544,265	26,259,115
Accumulated other comprehensive loss	-	(105,025)
Accumulated deficit	(42,264,190)	(39,557,206)
Total stockholders' deficit	(8,383,418)	(7,977,648)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$ 1,625,753	\$ 1,804,388

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

**PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF OPERATIONS
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015**

	For the Year Ended December 31,	
	2016	2015
Revenue:		
Products, services, other	\$ 1,794,749	\$ 1,409,991
Grant revenue	181,738	387,700
Total revenue	<u>1,976,487</u>	<u>1,797,691</u>
Costs and expenses:		
Cost of products and services	834,012	609,054
Research and development	1,183,011	1,105,295
Selling and marketing	872,365	745,574
General and administrative	2,822,752	2,902,950
Total operating costs and expenses	<u>5,712,140</u>	<u>5,362,873</u>
Operating loss	(3,735,653)	(3,565,182)
Other (expense) income:		
Interest expense	(4,501,186)	(4,146,416)
Other expense	(1,112)	(36,879)
Impairment loss on investment	(373,682)	-
Gain on extinguishment of embedded derivative liabilities	-	2,555,180
Change in fair value of derivative liabilities	5,904,649	(2,222,001)
Total other (expense) income	<u>1,028,669</u>	<u>(3,850,116)</u>
Net loss	(2,706,984)	(7,415,298)
Accrued dividends on convertible preferred stock	-	(23,194)
Net loss applicable to common shareholders	<u>\$ (2,706,984)</u>	<u>\$ (7,438,492)</u>
Net loss per share attributable to common stockholders - basic and diluted	\$ (2.97)	\$ (10.77)
Weighted average common stock shares outstanding used in the basic and diluted net loss per share calculation	911,312	690,873

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

	For the Year Ended	
	December 31,	
	2016	2015
Comprehensive Loss		
Net loss	\$ (2,706,984)	\$ (7,415,298)
Other comprehensive loss		
Unrealized loss on marketable securities	105,025	(105,025)
Comprehensive loss	\$ (2,601,959)	\$ (7,520,323)

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

	Series D		Series G		Series H		Series H(2)	
	Preferred Stock		Preferred Stock		Preferred Stock		Preferred Stock	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
BALANCE, December 31, 2014	<u>300</u>	<u>\$ 3</u>	<u>86,570</u>	<u>\$ 866</u>	<u>10,000</u>	<u>\$ 100</u>	<u>21</u>	<u>\$ -</u>
Stock-based compensation	-	-	-	-	-	-	-	-
Issuance of common stock for services	-	-	-	-	-	-	-	-
Warrant revaluation	-	-	-	-	-	-	-	-
Stock exchange with Everest Investments	-	-	-	-	-	-	-	-
Issuance of warrants for services	-	-	-	-	-	-	-	-
Conversion of debt and interest for common stock	-	-	-	-	-	-	-	-
Dividends earned	-	-	-	-	-	-	-	-
Unrealized loss on investments, net of tax	-	-	-	-	-	-	-	-
Net loss	-	-	-	-	-	-	-	-
BALANCE, December 31, 2015	<u>300</u>	<u>\$ 3</u>	<u>86,570</u>	<u>\$ 866</u>	<u>10,000</u>	<u>\$ 100</u>	<u>21</u>	<u>\$ -</u>
Stock-based compensation	-	-	-	-	-	-	-	-
Issuance of common stock for services	-	-	-	-	-	-	-	-
Warrant revaluation	-	-	-	-	-	-	-	-
Warrant exercise	-	-	-	-	-	-	-	-
Stock exchange with Everest Investments	-	-	-	-	-	-	-	-
Issuance of warrants for services	-	-	-	-	-	-	-	-
Conversion of debt and interest for common stock	-	-	-	-	-	-	-	-
Issuance of common stock for dividends paid-in-kind	-	-	-	-	-	-	-	-
Conversion of Series J convertible preferred stock	-	-	-	-	-	-	-	-
Conversion of Series K convertible preferred stock	-	-	-	-	-	-	-	-
Common Stock offering	-	-	-	-	-	-	-	-
Offering costs for issuance of common stock	-	-	-	-	-	-	-	-
Stock issued with debt	-	-	-	-	-	-	-	-
Warrants issued with debt	-	-	-	-	-	-	-	-
Unrealized loss on investments, net of tax	-	-	-	-	-	-	-	-
Net loss	-	-	-	-	-	-	-	-
BALANCE, December 31, 2016	<u>300</u>	<u>\$ 3</u>	<u>86,570</u>	<u>\$ 866</u>	<u>10,000</u>	<u>\$ 100</u>	<u>21</u>	<u>\$ -</u>

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT (CONTINUED)
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

	Series J Preferred Stock		Series K Preferred Stock		Common Stock		Stock Warrants	Additional Paid-In Capital	Accumulated other comprehensive loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount					
BALANCE, December 31, 2014	3,546	\$ 36	11,416	\$ 114	622,446	\$ 6,224	\$ 5,253,566	\$ 24,798,074	\$ -	\$ (32,118,714)	\$ (2,059,731)
Stock-based compensation	-	-	-	-	-	-	-	208,989	-	-	208,989
Issuance of common stock for services	-	-	-	-	58,503	585	-	456,445	-	-	457,030
Warrant revaluation	-	-	-	-	-	-	69,627	-	-	-	69,627
Stock exchange with Everest Investments	-	-	-	-	33,334	334	-	399,213	-	-	399,547
Issuance of warrants for services	-	-	-	-	-	-	93,488	-	-	-	93,488
Conversion of debt and interest for common stock	-	-	-	-	52,547	525	-	396,394	-	-	396,919
Dividends earned	-	-	-	-	-	-	-	-	-	(23,194)	(23,194)
Unrealized loss on investments, net of tax	-	-	-	-	-	-	-	-	(105,025)	-	(105,025)
Net loss	-	-	-	-	-	-	-	-	-	(7,415,298)	(7,415,298)
BALANCE, December 31, 2015	3,546	\$ 36	11,416	\$ 114	766,830	\$ 7,668	\$ 5,416,681	\$ 26,259,115	\$ (105,025)	\$ (39,557,206)	\$ (7,977,648)
Stock-based compensation	-	-	-	-	-	-	-	379,964	-	-	379,964
Issuance of common stock for services	-	-	-	-	25,167	252	-	332,444	-	-	332,696
Warrant exercise	-	-	-	-	766	8	(11,100)	11,092	-	-	-
Issuance of warrants for services	-	-	-	-	-	-	84,735	-	-	-	84,735
Conversion of debt and interest for common stock	-	-	-	-	14,028	140	-	117,697	-	-	117,837
Issuance of common stock for dividends paid-in-kind	-	-	-	-	8,285	83	-	63,772	-	-	63,855
Conversion of Series J convertible preferred stock	(25)	(1)	-	-	833	8	-	(7)	-	-	-
Conversion of Series K convertible preferred stock	-	-	(4,600)	(46)	153,333	1,533	-	(1,487)	-	-	-
Common stock offering	-	-	-	-	50,834	508	315,301	294,191	-	-	610,000
Offering costs for issuance of common stock	-	-	-	-	-	-	-	(79,035)	-	-	(79,035)
Stock issued with debt	-	-	-	-	13,252	133	-	145,798	-	-	145,931
Warrants issued with debt	-	-	-	-	-	-	519,485	-	-	-	519,485
Beneficial conversion feature	-	-	-	-	-	-	-	20,721	-	-	20,721
Unrealized loss on investments, net of tax	-	-	-	-	-	-	-	-	105,025	-	105,025
Net loss	-	-	-	-	-	-	-	-	-	(2,706,984)	(2,706,984)
BALANCE, December 31, 2016	3,521	\$ 35	6,816	\$ 68	1,033,328	\$ 10,333	\$ 6,325,102	\$ 27,544,265	\$ -	\$ (42,264,190)	\$ (8,383,418)

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

**PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015**

	For the Year Ended December 31,	
	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	\$ (2,706,984)	\$ (7,415,298)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	17,939	25,288
Provision for bad debts	28,169	-
Accretion of interest and amortization of debt discount	4,003,485	2,989,765
Penalty interest added to debt principal	41,200	-
Gain on settlement of debt	(5,044)	-
Stock-based compensation expense	379,964	208,989
Warrant expense	84,735	163,115
Amortization of third party fees paid in common stock	332,696	457,030
Impairment loss on investment	373,682	-
Gain on extinguishment of embedded derivative liabilities	-	(2,555,180)
Change in fair value of derivative liabilities	(5,904,649)	2,222,001
Changes in operating assets and liabilities:		
Accounts receivable	(196,233)	158,766
Inventories	133,087	(187,820)
Prepaid expenses and other assets	(44,201)	(15,722)
Accounts payable	(534,140)	(94,392)
Accrued employee compensation	73,587	18,662
Deferred revenue and other accrued expenses	116,856	205,050
Net cash used in operating activities	<u>(3,805,851)</u>	<u>(3,819,746)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property plant and equipment	(7,203)	(9,412)
Net cash used in investing activities	<u>(7,203)</u>	<u>(9,412)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:		
Net proceeds from related party debt	116,667	6,300
Payment of related party debt	(20,000)	(12,300)
Net proceeds from revolving note payable	1,133,500	-
Net proceeds from convertible debt	2,105,420	5,558,537
Payments on convertible debt	(107,000)	(2,653,990)
Net proceeds from non-convertible debt	1,022,784	1,257,418
Payments on non-convertible debt	(947,702)	(587,949)
Net proceeds from the issuance of common stock	530,965	-
Payment of accrued prepayment penalty	-	(96,023)
Net cash provided by financing activities	<u>3,834,634</u>	<u>3,471,993</u>
NET INCREASE (DECREASE) IN CASH	21,580	(357,165)
CASH AT BEGINNING OF YEAR	116,783	473,948
CASH AT END OF PERIOD	<u>\$ 138,363</u>	<u>\$ 116,783</u>
SUPPLEMENTAL INFORMATION		
Interest paid in cash	\$ 260,979	\$ 1,072,900
Income taxes paid in cash	-	-
NON CASH TRANSACTIONS:		
Shares issued for conversion of debt and interest	117,837	396,919
Cashless exercise of warrants	11,100	-
Discount due to beneficial conversion feature	20,721	-
Discount due to warrants issued with debt	519,485	-
Common stock issued with debt	104,731	-
Common stock issued to settle non-convertible debt	41,200	-
Conversion of preferred stock and accrued dividends into common stock	63,902	-
Accrued dividends on preferred stock	-	23,194
Issuance of common stock for investment in available-for-sale equity securities	-	399,547
Unrealized loss from available-for-sale equity securities	-	105,025
Debt discount from derivative liability	1,304,049	6,819,730
Debt discount related to accrual of one-time interest	170,000	-
Extension fees added to principal	-	84,000
Prepayment penalty and accrued interest enrolled into debt principal	-	48,950

Reversal of accumulated other comprehensive income to impairment loss on investment	105,025	-
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The accompanying notes are an integral part of these consolidated financial statements.

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Pressure Biosciences, Inc. (“we”, “our”, “the Company”) is focused on solving the challenging problems inherent in biological sample preparation, a crucial laboratory step performed by scientists worldwide working in biological life sciences research. Sample preparation is a term that refers to a wide range of activities that precede most forms of scientific analysis. Sample preparation is often complex, time-consuming, and in our belief, one of the most error-prone steps of scientific research. It is a widely-used laboratory undertaking, the requirements of which drive what we believe is a large and growing worldwide market. We have developed and patented a novel, enabling technology platform that can control the sample preparation process. It is based on harnessing the unique properties of high hydrostatic pressure. This process, called pressure cycling technology, or PCT, uses alternating cycles of hydrostatic pressure between ambient and ultra-high levels (35,000 psi or greater) to safely, conveniently and reproducibly control the actions of molecules in biological samples, such as cells and tissues from human, animal, plant, and microbial sources.

Our pressure cycling technology uses internally developed instrumentation that is capable of cycling pressure between ambient and ultra-high levels - at controlled temperatures and specific time intervals - to rapidly and repeatedly control the interactions of bio-molecules, such as DNA, RNA, proteins, lipids, and small molecules. Our laboratory instrument, the Barocycler®®, and our internally developed consumables product line, including PULSE® (Pressure Used to Lyse Samples for Extraction) Tubes, other processing tubes, and application specific kits (which include consumable products and reagents) together make up our PCT Sample Preparation System, or PCT SPS.

In 2015, together with an investment bank, we formed a subsidiary called Pressure BioSciences Europe (“PBI Europe”) in Poland. We have 49% ownership interest with the investment bank retaining 51%. As of now, PBI Europe does not have any operating activities and we cannot reasonably predict when operations will commence. Therefore, we do not have control of the subsidiary and did not consolidate in our financial statements. PBI Europe did not have any operations in 2016 or in 2015.

(2) Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the liquidation of liabilities in the normal course of business. However, we have experienced negative cash flows from operations with respect to our pressure cycling technology business since our inception. As of December 31, 2016, we do not have adequate working capital resources to satisfy our current liabilities and as a result, there is substantial doubt regarding our ability to continue as a going concern. We have been successful in raising cash through debt and equity offerings in the past and as described in Note 6, completed debt financing subsequent to December 31, 2016. We have financing efforts in place to continue to raise cash through debt and equity offerings.

Management has developed a plan to continue operations. This plan includes obtaining equity or debt financing. During the year ended December 31, 2016 we received \$4,378,371 net proceeds, in additional convertible and non-convertible debt. Although we have successfully completed financings and reduced expenses in the past, we cannot assure you that our plans to address these matters in the future will be successful.

We need substantial additional capital to fund normal operations in future periods. In the event that we are unable to obtain financing on acceptable terms, or at all, we will likely be required to cease our operations, pursue a plan to sell our operating assets, or otherwise modify our business strategy, which could materially harm our future business prospects. These financial statements do not include any adjustments that might result from this uncertainty.

(3) Summary of Significant Accounting Policies

i. Principles of Consolidation

The consolidated financial statements include the accounts of Pressure BioSciences, Inc., and its wholly-owned subsidiary PBI BioSeq, Inc. All intercompany accounts and transactions have been eliminated in consolidation.

ii. Use of Estimates

To prepare our consolidated financial statements in conformity with accounting principles generally accepted in the United States of America, we are required to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. In addition, significant estimates were made in projecting future cash flows to quantify impairment of assets, deferred tax assets, the costs associated with fulfilling our warranty obligations for the instruments that we sell, and the estimates employed in our calculation of fair value of stock options awarded, beneficial conversion features and derivative liabilities. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from the estimates and assumptions used.

iii. Revenue Recognition

Revenue is recognized when realized or when realizable and earned when all the following criteria have been met: persuasive evidence of an arrangement exists; goods were shipped, delivery of service has occurred and risk of loss has passed to the customer; the seller's price to the buyer is fixed or determinable; and collectability is reasonably assured.

Our current instruments, the Barocycler NEP3229 and NEP2320, require a basic level of instrumentation expertise to set-up for initial operation. To support a favorable first experience for our customers, upon customer request and for an additional fee, we will send a highly trained technical representative to the customer site to install Barocyclers that we sell, lease, or rent through our domestic sales force. The installation process includes uncrating and setting up the instrument, followed by introductory user training. Product revenue related to current Barocycler instrumentation is recognized upon shipment of the unit, or in the case where the customer requests installation and training, the completion of the installation and introductory training process of the instrumentation at the customer location, for domestic installations. Product revenue related to sales of PCT instrumentation to our foreign distributors is recognized upon shipment through a common carrier. We provide for the expected costs of warranty upon the recognition of revenue for the sales of our instrumentation. Our sales arrangements do not provide our customers with a right of return. Product revenue related to the HUB440 and our consumable products such as PULSE Tubes, MicroTubes, and application specific kits is recorded upon shipment through a common carrier. Shipping costs are included in sales and marketing expense. Any shipping costs billed to customers are recognized as revenue.

The Company applies ASC 845, "Accounting for Non-Monetary Transactions", to account for products and services sold through non-cash transactions based on the fair values of the products and services involved, where such values can be determined. Non-cash exchanges would require revenue to be recognized at recorded cost or carrying value of the assets or services sold if any of the following conditions apply:

- a) The fair value of the asset or service involved is not determinable.
- b) The transaction is an exchange of a product or property held for sale in the ordinary course of business for a product or property to be sold in the same line of business to facilitate sales to customers other than the parties to the exchange.
- c) The transaction lacks commercial substance.

The Company currently records revenue for its non-cash transactions at recorded cost or carrying value of the assets or services sold.

We account for our lease agreements under the operating method. We record revenue over the life of the lease term and we record depreciation expense on a straight-line basis over the thirty-six month estimated useful life of the Barocycler instrument. The depreciation expense associated with assets under lease agreement is included in the "Cost of PCT products and services" line item in our consolidated statements of operations. Many of our lease and rental agreements allow the lessee to purchase the instrument at any point during the term of the agreement with partial or full credit for payments previously made. We pay all maintenance costs associated with the instrument during the term of the leases.

Revenue from government grants is recorded when qualifying expenses are incurred under the grant in accordance with the terms of the grant award.

Deferred revenue represents amounts received from grants and the Company's service contracts for which the related revenues have not been recognized because one or more of the revenue recognition criteria have not been met. The current portion of deferred revenue represents the amount to be recognized within one year from the balance sheet date based on the estimated performance period of the underlying deliverables. Revenue from service contracts is recorded ratably over the length of the contract.

Our transactions sometimes involve multiple elements (i.e., products and services). Revenue under multiple element arrangements is recognized in accordance with FASB ASC 605-25 *Multiple-Element Arrangements* ("ASC 605"). When vendor specific objective evidence or third party evidence of selling price for deliverables in an arrangement cannot be determined, the Company develops a best estimate of the selling price to separate deliverables and allocates arrangement consideration using the relative selling price method. If an arrangement includes undelivered elements that are not essential to the functionality of the delivered elements, we defer the fair value of the undelivered elements to such time as they are delivered. Fair value is determined based upon the price charged when the element is sold separately. If there is not sufficient evidence of the fair value of the undelivered elements the Company uses its best estimate of the value of those items and recognizes revenues based on the relative values of the delivered and undelivered items. We provide certain customers with extended service contracts with revenue recognized ratably over the life of the contract.

iv. Cash and Cash Equivalents

Our policy is to invest available cash in short-term, investment grade interest-bearing obligations, including money market funds, and bank and corporate debt instruments. Securities purchased with initial maturities of three months or less are valued at cost plus accrued interest, which approximates fair value, and are classified as cash equivalents.

v. Research and Development

Research and development costs, which are comprised of costs incurred in performing research and development activities including wages and associated employee benefits, facilities, consumable products and overhead costs that are expensed as incurred. In support of our research and development activities we utilize our Barocycler instruments that are capitalized as fixed assets and depreciated over their expected useful life.

vi. Inventories

Inventories are valued at the lower of cost (average cost) or market (sales price). The cost of Barocyclers consists of the cost charged by the contract manufacturer. The cost of manufactured goods includes material, freight-in, direct labor, and applicable overhead. The composition of inventory as of December 31, is as follows:

	2016	2015
Raw materials	\$ 326,228	\$ 310,367
Finished goods	599,056	778,004
Inventory reserve	(20,000)	(50,000)
Total	<u>\$ 905,284</u>	<u>\$ 1,038,371</u>

vii. Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. For financial reporting purposes, depreciation is recognized using the straight-line method, allocating the cost of the assets over their estimated useful lives of three years for certain laboratory equipment, from three to five years for management information systems and office equipment, and three years for all PCT finished units classified as fixed assets.

viii. Intangible Assets

We have classified as intangible assets, costs associated with the fair value of acquired intellectual property. Intangible assets, including patents, are being amortized on a straight-line basis over sixteen years. We perform an annual review of our intangible assets for impairment. When impairment is indicated, any excess of carrying value over fair value is recorded as a loss. As of December 31, 2016 and 2015, the outstanding balance for intangible assets is zero.

ix. Long-Lived Assets

The Company's long-lived assets are reviewed for impairment in accordance with the guidance of the FASB ASC 360-10-05, *Property, Plant, and Equipment*, whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. Recoverability of an asset to be held and used is measured by a comparison of the carrying amount of an asset to the future undiscounted cash flows expected to be generated by the asset. If such asset is considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds its fair value. Through December 31, 2016, the Company had not experienced impairment losses on its long-lived assets. While our current and historical operating losses and cash flow are indicators of impairment, we performed an impairment test at December 31, 2016 and determined that such long-lived assets were not impaired.

x. Concentrations

Credit Risk

Our financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash, cash equivalents and trade receivables. We have cash investment policies which, among other things, limit investments to investment-grade securities. We perform ongoing credit evaluations of our customers, and the risk with respect to trade receivables is further mitigated by the fact that many of our customers are government institutions and university labs. Allowances are provided for estimated amounts of accounts receivable which may not be collected. At December 31, 2016 and 2015, we determined that no allowance against accounts receivable was necessary.

The following table illustrates the level of concentration of the below two groups within revenue as a percentage of total revenues during the years ended December 31:

	2016	2015
Top Five Customers	29%	38%
Federal Agencies	3%	23%

The following table illustrates the level of concentration of the below two groups within accounts receivable as a percentage of total accounts receivable balance as of December 31:

	2016	2015
Top Five Customers	82%	93%
Federal Agencies	1%	1%

Investment in Available-For-Sale Equity Securities

As of December 31, 2016, we held 601,500 shares of common stock of Everest, a Polish publicly traded company listed on the Warsaw Stock Exchange. We exchanged 33,334 shares of our common stock for the 601,500 shares of Everest. We account for this investment in accordance with ASC 320 "*Investments — Debt and Equity Securities*" as securities available for sale. On December 31, 2016, our consolidated balance sheet reflected the fair value of our investment in Everest to be \$25,865, based on the closing price of Everest shares of \$0.043 per share on that day. The carrying value of our investment in Everest common stock held will change from period to period based on the closing price of the common stock of Everest as of the balance sheet date. The change in market value since the receipt of stock amounting to \$373,682 was determined to be other than temporary and was recorded by us as an impairment loss in 2016.

xi. Computation of Loss per Share

Basic loss per share is computed by dividing loss available to common shareholders by the weighted average number of common shares outstanding. Diluted loss per share is computed by dividing loss available to common shareholders by the weighted average number of common shares outstanding plus additional common shares that would have been outstanding if dilutive potential common shares had been issued. For purposes of this calculation, convertible preferred stock, common stock dividends, warrants to acquire preferred stock convertible into common stock, and warrants and options to acquire common stock, are all considered common stock equivalents in periods in which they have a dilutive effect and are excluded from this calculation in periods in which these are anti-dilutive. The following table illustrates our computation of loss per share for the years ended December 31:

	<u>2016</u>	<u>2015</u>
<u>Numerator:</u>		
Net loss	\$ (2,706,984)	\$ (7,415,298)
Preferred dividends accrued	-	(23,194)
Net loss applicable to common shareholders	<u>\$ (2,706,984)</u>	<u>\$ (7,438,492)</u>
<u>Denominator for basic and diluted loss per share:</u>		
Weighted average common shares outstanding	<u>911,312</u>	<u>690,874</u>
Loss per common share - basic and diluted	<u>\$ (2.97)</u>	<u>\$ (10.77)</u>

The following table presents securities that could potentially dilute basic loss per share in the future. For all periods presented, the potentially dilutive securities were not included in the computation of diluted loss per share because these securities would have been anti-dilutive for the years ended December 31:

	<u>2016</u>	<u>2015</u>
Stock options	175,642	185,709
Convertible debt	891,132	656,310
Common stock warrants	881,990	974,256
Convertible preferred stock:		
Series D Convertible Preferred	25,000	25,000
Series G Convertible Preferred	28,857	28,857
Series H Convertible Preferred	33,334	33,334
Series H2 Convertible Preferred	70,000	70,000
Series J Convertible Preferred	117,367	118,200
Series K Convertible Preferred	227,200	380,534
	<u>2,450,522</u>	<u>2,472,200</u>

xii. Accounting for Income Taxes

We account for income taxes under the asset and liability method, which requires recognition of deferred tax assets, subject to valuation allowances, and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements or tax returns. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting and income tax purposes. The Company considers many factors when assessing the likelihood of future realization of our deferred tax assets, including recent cumulative earnings experience by taxing jurisdiction, expectations of future taxable income or loss, the carry-forward periods available to us for tax reporting purposes, and other relevant factors. A valuation allowance is established if it is more likely than not that all or a portion of the net deferred tax assets will not be realized. If substantial changes in the Company's ownership should occur, as defined in Section 382 of the Internal Revenue Code, there could be significant limitations on the amount of net loss carry forwards that could be used to offset future taxable income.

Tax positions must meet a "more likely than not" recognition threshold at the effective date to be recognized. At December 31, 2016 and 2015, the Company did not have any uncertain tax positions. No interest and penalties related to uncertain tax positions were accrued at December 31, 2016 and 2015.

xiii. Accounting for Stock-Based Compensation

We maintain equity compensation plans under which incentive stock options and non-qualified stock options are granted to employees, independent members of our Board of Directors and outside consultants. We recognize equity compensation expense over the requisite service period using the Black-Scholes formula to estimate the fair value of the stock options on the date of grant. Employee awards are accounted for under ASC 718 where the awards are valued at grant date. Awards given to nonemployees are accounted for under ASC 505 where the awards are valued at earlier of commitment date or completion of services.

Determining Fair Value of Stock Option Grants

Valuation and Amortization Method - The fair value of each option award is estimated on the date of grant using the Black-Scholes pricing model based on certain assumptions. The estimated fair value of employee stock options is amortized to expense using the straight-line method over the vesting period, which generally is over three years.

Expected Term - The Company uses the simplified calculation of expected life, described in the FASB ASC 718, *Compensation-Stock Compensation*, as the Company does not currently have sufficient historical exercise data on which to base an estimate of expected term. Using this method, the expected term is determined using the average of the vesting period and the contractual life of the stock options granted.

Expected Volatility - Expected volatility is based on the Company's historical stock volatility data over the expected term of the award.

Risk-Free Interest Rate - The Company bases the risk-free interest rate used in the Black-Scholes valuation method on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term.

Forfeitures - As required by FASB ASC 718, *Compensation-Stock Compensation*, the Company records stock-based compensation expense only for those awards that are expected to vest. The Company estimated a forfeiture rate of 5% for awards granted based on historical experience and future expectations of options vesting. We used this historical rate as our assumption in calculating future stock-based compensation expense.

The following table summarizes the assumptions we utilized for grants of stock options to the three sub-groups of our stock option recipients during the year ended December 31, 2015:

Assumptions	Non-Employee Board Members	CEO, other Officers and Employees
Expected life	6.0 (yrs)	6.0 (yrs)
Expected volatility	116.32%-141.15%	116.32%-141.15%
Risk-free interest rate	0.65%-2.54%	0.65%-2.54%
Forfeiture rate	5.00%	5.00%
Expected dividend yield	0.0%	0.0%

We recognized stock-based compensation expense of \$379,964 and \$208,989 for the years ended December 31, 2016 and 2015, respectively. The following table summarizes the effect of this stock-based compensation expense within each of the line items within our accompanying consolidated statements of operations for the years ended December 31:

	2016	2015
Research and development	\$ 65,500	\$ 50,617
Selling and marketing	42,315	32,704
General and administrative	272,149	125,668
Total stock-based compensation expense	\$ 379,964	\$ 208,989

During the years ended December 31, 2016 and 2015, the total fair value of stock options awarded was \$0 and \$598,582, respectively.

As of December 31, 2016, the total estimated fair value of unvested stock options to be amortized over their remaining vesting period was \$369,224. The non-cash, stock based compensation expense associated with the vesting of these options will be \$212,957 in 2017 and \$156,267 in 2018.

xiv. Advertising

Advertising costs are expensed as incurred. We incurred \$19,125 in 2016 and \$12,291 in 2015 for advertising.

xv. Fair Value of Financial Instruments

Due to their short maturities, the carrying amounts for cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses approximate their fair value. Short-term and long-term liabilities are primarily related to liabilities transferred under contractual arrangements with carrying values that approximate fair value.

xvi. Fair Value Measurements

The Company follows the guidance of FASB ASC Topic 820, “*Fair Value Measurements and Disclosures*” (“*ASC 820*”) as it related to financial assets and financial liabilities that are recognized or disclosed at fair value in the consolidated financial statements on a recurring basis.

The Company generally defines fair value 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 (exit price). The Company uses a three-tier fair value hierarchy, which classifies the inputs used in measuring fair values. 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; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company has determined that its financial assets are currently classified within Level 1 and that its financial liabilities are currently all classified within Level 3 in the fair value hierarchy.

The following tables set forth the Company’s financial assets and financial liabilities that were accounted for at fair value on a recurring basis as of December 31, 2016 and December 31, 2015. The development of the unobservable inputs for Level 3 fair value measurements and fair value calculations are the responsibility of the Company’s management.

	December 31, 2016	Fair value measurements at December 31, 2016 using:		
		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Available-For-Sale Equity Securities	25,865	25,865	-	-
Total Financial Assets	\$ 25,865	\$ 25,865	\$ -	\$ -

	December 31, 2016	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Series D Preferred Stock Purchase Warrants	\$ 23,313	-	-	\$ 23,313
Warrants Issued with Convertible Debt	1,661,795	-	-	1,661,795
Conversion Option Derivative Liabilities	951,059	-	-	951,059
Total Derivatives	\$ 2,636,167	\$ -	\$ -	\$ 2,636,167

	December 31, 2015	Fair value measurements at December 31, 2015 using:		
		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Available-For-Sale Equity Securities	294,522	294,522	-	-
Total Financial Assets	\$ 294,522	\$ 294,522	\$ -	\$ -

	December 31, 2015	Quoted prices in active markets	Significant other observable inputs	Significant unobservable inputs
		(Level 1)	(Level 2)	(Level 3)
Series D Preferred Stock Purchase				
Warrants	\$ 173,526	-	-	\$ 173,526
Warrants Issued with Convertible Debt	3,122,450	-	-	3,122,450
Conversion Option Derivative Liabilities	3,940,791	-	-	3,940,791
Total Derivatives	\$ 7,236,767	\$ -	\$ -	\$ 7,236,767

The following table provides a summary of the changes in fair value, including net transfers in and/or out, of the derivative financial instruments, measured at fair value on a recurring basis using significant unobservable inputs:

	January 1, 2016	Issuance fair value	Change in fair value	December 31, 2016
Series D Preferred Stock Purchase				
Warrants	\$ 173,526	\$ -	\$ (150,213)	\$ 23,313
Warrants Issued with Convertible Debt	3,122,450	1,094,432	(2,555,087)	1,661,795
Conversion Option Derivative Liabilities	3,940,791	1,547,127	(4,536,859)	951,059
Total Derivatives	\$ 7,236,767	\$ 2,641,559	\$ (7,242,159)	\$ 2,636,167

	January 1, 2015	Issuance fair value	Change in fair value	Gain on extinguishment of derivative liabilities	December 31, 2015
Series D Preferred Stock Purchase					
Warrants	\$ 159,875	\$ -	\$ 13,651	\$ -	\$ 173,526
Warrants Issued with Convertible Debt	-	2,320,021	802,429	-	3,122,450
Conversion Option Derivative Liabilities	590,341	5,305,185	600,445	(2,555,180)	3,940,791
Total Derivatives	\$ 750,216	\$ 7,625,206	\$ 1,416,525	\$ (2,555,180)	\$ 7,236,767

The issuance fair values for 2016 and 2015 include the “day 1” derivative losses on the conversion option derivative liabilities of \$1,337,510 and \$805,476, respectively, which are included in “change in fair value of derivative liabilities” in the consolidated statements of operations.

The fair value of the derivative liabilities was determined using a binomial pricing model. The assumptions for the binomial pricing model are represented in the table below for the warrants issued in the Series D private placement reflected on a per share common stock equivalent basis.

Assumptions	November 10, 2011	Warrants revalued at December 31, 2015	Warrants revalued at December 31, 2016
Expected life (in months)	60.0	11.0	5.0
Expected volatility	104.5%	104.9%	83.5%
Risk-free interest rate	0.875%	0.65%	0.62%
Exercise price	\$ 24.30	\$ 7.50	\$ 7.50
Fair value per warrant	\$ 16.20	\$ 4.80	\$ 0.60

The assumptions for the binomial pricing model are represented in the table below for the warrants issued with the Convertible Debt in 2015 and 2016 reflected on a per share common stock equivalent basis.

Assumptions	At Issuance Fair value	Warrants revalued at December 31, 2015	Warrants revalued at December 31, 2016
Expected life (in months)	60.0	55.0-60.0	43.0-51.0
Expected volatility	118.3-120.1%	136.3-141.6%	110.0-116.0%
Risk-free interest rate	1.48-1.69%	1.29-1.76%	1.93%
Exercise price	\$ 12.00	\$ 12.00	\$ 12.00
Fair value per warrant	\$ 5.70-\$6.30	\$ 9.00	\$ 3.60-4.20

The assumptions for the binomial pricing model are represented in the table below for the conversion options reflected on a per share common stock equivalent basis.

Assumptions	At Issuance fair value	At Settlement fair value	Conversion options revalued at December 31, 2015	Conversion options revalued at December 31, 2016
Expected life (in months)	6.0-24.0	0-18.0	18-24	6.0-15.0
Expected volatility	104.2-153.8%	86.9%-142.2%	112.2-114.7%	84.4-94.8%
Risk-free interest rate	0.05-0.99%	0.01-0.72%	1.06%	0.62-0.85%
Exercise price	\$ 3.00-\$10.50	\$ 3.00-\$7.50	\$ 8.40	\$ 8.40
Fair value per conversion option	\$ 2.70-\$8.40	\$ 2.10-\$7.80	\$ 4.20-\$9.90	\$ 0.90-\$1.80

xvii. Recently Issued Accounting Standards

In April 2015, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2015-03, “Simplifying the Presentation of Debt Issuance Costs” (“ASU 2015-03”). ASU 2015-03 requires that debt issuance costs be presented as a direct deduction from the carrying amount of the related debt liability, consistent with the presentation of debt discounts. Prior to the issuance of ASU 2015-03, debt issuance costs were required to be presented as deferred charge assets, separate from the related debt liability. ASU 2015-03 does not change the recognition and measurement requirements for debt issuance costs. The Company early-adopted ASU 2015-03 as of the end of its Fiscal 2015, and applied its provisions retrospectively. The adoption of ASU 2015-03 resulted in the reclassification of approximately \$888,000 unamortized debt issuance costs related to the Company’s Senior Notes (see Note 8) from other non-current assets to long-term debt within its consolidated balance sheets as of December 31, 2015. Other than this reclassification, the adoption of ASU 2015-03 and other new pronouncements that have been issued did not have an impact on the Company’s consolidated financial statements.

(4) Property and Equipment, net

Property and equipment as of December 31, 2016 and 2015 consisted of the following components:

	<u>December 31,</u>	
	<u>2016</u>	<u>2015</u>
Laboratory and manufacturing equipment	\$ 226,326	\$ 226,081
Office equipment	165,832	158,872
Leasehold improvements	8,117	8,117
PCT collaboration, demonstration and leased systems	461,858	461,858
Total property and equipment	<u>862,133</u>	<u>854,928</u>
Less accumulated depreciation	(852,720)	(834,779)
Net book value	<u>\$ 9,413</u>	<u>\$ 20,149</u>

Depreciation expense for the years ended December 31, 2016 and 2015 was \$17,939 and \$25,288, respectively.

(5) Retirement Plan

We provide all of our employees with the opportunity to participate in our retirement savings plan. Our retirement savings plan has been qualified under Section 401(k) of the Internal Revenue Code. Eligible employees are permitted to contribute to the plan through payroll deductions within statutory limitations and subject to any limitations included in the plan. During 2016 and 2015 we contributed \$22,627 and \$22,098, respectively, in the form of discretionary Company-matching contributions.

(6) Income Taxes

Tax positions must meet a “more likely than not” recognition threshold at the effective date to be recognized. At December 31, 2016 and 2015, the Company did not have any uncertain tax positions. No interest and penalties related to uncertain tax positions were accrued at December 31, 2016 and 2015. Our tax returns for fiscal years 2013, 2014 and 2015 are open to examination.

We did not record an income tax benefit or provision for the years ended December 31, 2016 and 2015.

Significant items making up the deferred tax assets and deferred tax liabilities as of December 31, 2016 and 2015 are as follows:

	2016	2015
Current deferred taxes		
Inventories	\$ 7,856	\$ 19,640
Accounts receivable allowance	17,253	-
Other accruals	33,399	23,714
Less: valuation allowance	(58,508)	(43,354)
Total current deferred tax assets	\$ -	\$ -
Long term deferred taxes:		
Accelerated tax depreciation	\$ 14,582	\$ 14,134
Non-cash, stock-based compensation, nonqualified	711,676	562,426
Impairment loss on investment	146,782	-
Goodwill and intangibles	-	-
Operating loss carry forwards and tax credits	13,561,012	12,028,900
Less: valuation allowance	(14,434,052)	(12,605,460)
Total long term deferred tax assets (liabilities), net	-	-
Total net deferred tax liabilities	\$ -	\$ -

A valuation allowance is established if it is more likely than not that all or a portion of the deferred tax asset will not be realized. Accordingly, a valuation allowance was established in 2016 and 2015 for the full amount of our deferred tax assets due to the uncertainty of realization. We believe based on our projection of future taxable operating income for the foreseeable future, it is more likely than not that we will not be able to realize the benefit of the deferred tax asset at December 31, 2016.

We have net operating loss carry-forwards for federal income tax purposes of \$30,471,000 as of December 31, 2016. Included in these numbers are loss carry-forwards that were obtained through the acquisition of BioSeq, Inc. and are subject to Section 382 NOL limitations. These net operating loss carry-forwards expire at various dates from 2018 through 2037.

We had net operating loss carry-forwards for state income tax purposes of approximately \$21,547,000 at December 31, 2016. These net operating loss carry-forwards expire at various dates from 2030 through 2037.

We have research and development tax credit carry-forwards for federal income tax purposes of approximately \$1,039,000 as of December 31, 2016 and research and development tax credit carry-forwards for state income tax purposes of approximately \$207,000 as of December 31, 2016. The federal credit carry-forwards expire at various dates from 2017 through 2037. The state credit carry-forwards expire at various dates from 2023 through 2032.

In addition, we have federal alternative minimum tax credit carry-forwards for federal income tax purposes of approximately \$217,000 as of December 31, 2016. These credits do not expire.

Our effective income tax (benefit) provision rate was different than the statutory federal income tax (benefit) provision rate as follows for the years ended December 31:

	2016	2015
Federal tax provision rate	34%	34%
Permanent differences	24%	(12)%
State tax expense	0%	0%
Refundable AMT and R&D tax credit	0%	0%
Net operating loss carry back	0%	0%
Valuation allowance	(58)%	(22)%
Effective income tax provision	0%	0%

(7) Commitments and Contingencies

Operating Leases

Our corporate office is currently located at 14 Norfolk Avenue, South Easton, Massachusetts 02375. We are currently paying \$4,800 per month, on a lease extension, signed on December 29, 2016, that expires December 31, 2017, for our corporate office.

On November 1, 2014 we signed a lease for lab space in Medford, MA. We subsequently expanded our space in Medford. The lease expires December 30, 2017 and requires monthly payments of \$5,385 subject to annual cost of living increases.

Following is a schedule by years of future minimum rental payments required under operating leases with initial or remaining non-cancelable lease terms in excess of one year as of December 31, 2016:

2017	\$ 122,220
Thereafter	-
Total minimum payments required	<u>\$ 122,220</u>

Royalty Commitments

BioMolecular Assays, Inc.

In 1996, we acquired our initial equity interest in BioSeq, Inc., which at the time was developing our original pressure cycling technology. BioSeq, Inc. acquired its pressure cycling technology from BioMolecular Assays, Inc. under a technology transfer and patent assignment agreement. In 1998, we purchased all of the remaining outstanding capital stock of BioSeq, Inc., and at such time, the technology transfer and patent assignment agreement was amended to require us to pay BioMolecular Assays, Inc., a 5% royalty on our sales of products or services that incorporate or utilize the original pressure cycling technology that BioSeq, Inc. acquired from BioMolecular Assays, Inc. We are also required to pay BioMolecular Assays, Inc. 5% of the proceeds from any sale, transfer or license of all or any portion of the original pressure cycling technology. These payment obligations terminated on March 7, 2016. During the years ended December 31, 2016 and 2015, we incurred approximately \$6,963 and \$31,301, respectively, in royalty expense associated with our obligation to BioMolecular Assays, Inc.

In connection with our acquisition of BioSeq, Inc., we licensed certain limited rights to the original pressure cycling technology back to BioMolecular Assays, Inc. This license is non-exclusive and limits the use of the original pressure cycling technology by BioMolecular Assays, Inc. solely for molecular applications in scientific research and development and in scientific plant research and development. BioMolecular Assays, Inc. is required to pay us a royalty equal to 20% of any license or other fees and royalties, but not including research support and similar payments, it receives in connection with any sale, assignment, license or other transfer of any rights granted to BioMolecular Assays, Inc. under the license. BioMolecular Assays, Inc. was required to pay us these royalties until the expiration in March 2016 of the patents held by BioSeq, Inc. since 1998. We have not received any royalty payments from BioMolecular Assays, Inc. under this license.

Battelle Memorial Institute

In December 2008, we entered into an exclusive patent license agreement with the Battelle Memorial Institute (“*Battelle*”). The licensed technology is the subject of a patent application filed by Battelle in 2008 and relates to a method and a system for improving the analysis of protein samples, including through an automated system utilizing pressure and a pre-selected agent to obtain a digested sample in a significantly shorter period of time than current methods, while maintaining the integrity of the sample throughout the preparatory process. In addition to royalty payments on net sales on “licensed products,” we are obligated to make minimum royalty payments for each year that we retain the rights outlined in the patent license agreement and we are required to have our first commercial sale of the licensed products within one year following the issuance of the patent covered by the licensed technology. After re-negotiating the terms of the contract in 2013, the minimum annual royalty was \$1,200 in 2014 and \$2,000 in 2015; the minimum royalties are \$3,000 in 2016, \$4,000 in 2017 and \$5,000 in 2018 and each calendar year thereafter during the term of the agreement.

Target Discovery Inc.

In March 2010, we signed a strategic product licensing, manufacturing, co-marketing, and collaborative research and development agreement with Target Discovery Inc. (“*TDI*”). Under the terms of the agreement, we have been licensed by TDI to manufacture and sell a highly innovative line of chemicals used in the preparation of tissues for scientific analysis (“*TDI reagents*”). The TDI reagents were designed for use in combination with our pressure cycling technology. The companies believe that the combination of PCT and the TDI reagents can fill an existing need in life science research for an automated method for rapid extraction and recovery of intact, functional proteins associated with cell membranes in tissue samples. We did not incur any royalty obligation under this agreement in 2015 or 2014.

In April 2012, we signed a non-exclusive license agreement with TDI to grant the non-exclusive use of our pressure cycling technology. We recorded \$20,000 and \$22,000 of minimum royalty income in 2016 and 2015, respectively. We executed an amendment to this agreement on October 1, 2016 wherein we agreed to pay a monthly fee of \$1,400 for the use of a lab bench, shared space and other utilities, and \$2,000 per day for technical support services as needed.

Severance and Change of Control Agreements

Each of Mr. Schumacher, and Drs. Ting, Lazarev, and Lawrence, executive officers of the Company, are entitled to receive a severance payment if terminated by us without cause. The severance benefits would include a payment in an amount equal to one year of such executive officer’s annualized base salary compensation plus accrued paid time off. Additionally, the officer will be entitled to receive medical and dental insurance coverage for one year following the date of termination.

Each of these executive officers, other than Mr. Schumacher, is entitled to receive a change of control payment in an amount equal to one year of such executive officer’s annualized base salary compensation, accrued paid time off, and medical and dental coverage, in the event of a change of control of the Company. In the case of Mr. Schumacher, this payment would be equal to two years of annualized base salary compensation, accrued paid time off, and two years of medical and dental coverage. The severance payment is meant to induce the aforementioned executives to remain in the employ of the Company, in general; and particularly in the occurrence of a change in control, as a disincentive to the control change.

(8) Convertible Debt and Other Debt

Senior Secured Convertible Debentures and Warrants

We entered into Subscription Agreements (the “Subscription Agreement”) with various individuals (each, a “Purchaser”) between July 23, 2015 and March 31, 2016, pursuant to which the Company sold Senior Secured Convertible Debentures (the “Debentures”) and warrants to purchase shares of common stock equal to 50% of the number of shares issuable pursuant to the subscription amount (the “Warrants”) for an aggregate purchase price of \$6,329,549 (the “Purchase Price”).

The Company issued a principal aggregate amount of \$6,962,504 in Debentures which includes a 10% original issue discount on the Purchase Price. The Debenture does not accrue any additional interest during the first year it is outstanding but accrues interest at a rate equal to 10% per annum for the second year it is outstanding. The Debenture has a maturity date of two years from issuance. The Debenture is convertible any time after its issuance date. The Purchaser has the right to convert the Debenture into shares of the Company’s common stock at a fixed conversion price equal to \$8.40 per share, subject to applicable adjustments. In the second year that the Debenture is outstanding, any interest accrued shall be payable quarterly in either cash or common stock, at the Company’s discretion.

At any time after the Issuance Date, the Company has the option, subject to certain conditions, to redeem some or all of the then outstanding principal amount of the Debenture for cash in an amount equal to the sum of (i) 120% of the then outstanding principal amount of the Debenture, (ii) accrued but unpaid interest and (iii) any liquidated damages and other amounts due in respect of the Debenture.

The Company issued warrants exercisable into a total of 376,759 shares of our common stock. The Warrants issued in this transaction are immediately exercisable at an exercise price of \$12.00 per share, subject to applicable adjustments including full ratchet anti-dilution in the event that we issue any securities at a price lower than the exercise price then in effect. The Warrants have an expiration period of five years from the original issue date. The Warrants are subject to adjustment for stock splits, stock dividends or recapitalizations and also include anti-dilution price protection for subsequent equity sales below the exercise price.

Subject to the terms and conditions of the Warrants, at any time commencing six months from the Final Closing, the Company has the right to call the Warrants for cancellation if the volume weighted average price of its Common Stock on the OTCQB (or other primary trading market or exchange on which the Common Stock is then traded) equals or exceeds three times the per share exercise price of the Warrants for 15 out of 20 consecutive trading days.

In connection with the Subscription Agreement and Debenture, the Company entered into Security Agreements with the Purchasers whereby the Company agreed to grant to Purchasers an unconditional and continuing, first priority security interest in all of the assets and property of the Company to secure the prompt payment, performance and discharge in full of all of Company's obligations under the Debentures, Warrants and the other Transaction Documents.

The Company determined that the conversion feature of the Debentures met the definition of a liability in accordance with ASC 815-40 and therefore bifurcated the conversion feature on each debt agreement and accounted for it as a derivative liability. The fair value of the conversion feature was accounted for as a note discount and are amortized to interest expense over the life of the loan. The fair value of the conversion feature was reflected in the conversion option liability line in the condensed consolidated balance sheets.

The proceeds from these convertible debts were allocated between the host debt instrument and the convertible option based on the residual method. The estimated fair value of the convertible option was determined using a binomial formula, resulting in allocations to the convertible option and accounted for as a liability in the Company's condensed consolidated balance sheet. In accordance with the provisions of ASC 815-40, the gross proceeds are offset by debt discounts, which are amortized to interest expense over the expected life of the debt.

ASC 470-20 states that the proceeds from the issuance of debt with detachable stock warrants should be allocated between the debt and warrants on the basis of their relative fair market values. The debt discount will be amortized to interest expense over the two-year term of these loans. We amortized \$3,740,746 of the debt discount to interest expense in 2016. The warrants issued in connection with the convertible debentures are classified as warrant derivative liabilities because the warrants are entitled to certain rights in subsequent financings and the warrants contain “down-round protection” and therefore, do not meet the scope exception for treatment as a derivative under ASC 815, Derivatives and Hedging, (“ASC 815”). Since “down-round protection” is not an input into the calculation of the fair value of the warrants, the warrants cannot be considered indexed to the Company’s own stock which is a requirement for the scope exception as outlined under ASC 815. The estimated fair value of the warrants was determined using the binomial model, resulting in an allocation of \$2,847,624 to the total warrants out of the gross proceeds of \$6,329,549. The fair value will be affected by changes in inputs to that model including our stock price, expected stock price volatility, the contractual term, and the risk-free interest rate. We will continue to classify the fair value of the warrants as a liability until the warrants are exercised, expire or are amended in a way that would no longer require these warrants to be classified as a liability, whichever comes first.

Other convertible notes

On May 13, 2016, one lender converted an outstanding note issued on April 28, 2015 and the related accrued interest totaling \$117,837 to 14,028 common shares. As of December 31, 2016, the outstanding balance on the note was zero.

On May 24, 2016, we sold an additional convertible note for \$107,000 with warrants to purchase 1,667 shares of common stock at an exercise price of \$16.50 per share. The purchaser has the right to convert the notes into shares of the Company’s common stock at a fixed conversion price equal to \$13.50 per share, subject to applicable adjustments. The estimated fair value of the warrants was determined using the binomial model, resulting in an allocation of \$12,406 to the total warrants and the recognition of a beneficial conversion feature of \$7,962, both of which were recorded as a discount to the note. We evaluated the convertible note and warrants for derivative liability treatment and determined that these instruments do not include certain rights such as price protection like our previous debt financings. Accordingly, we concluded that this financing arrangement did not qualify for derivative accounting treatment.

On June 14, 2016, we sold an additional convertible note for \$115,000 and issued 1,023 common shares to compensate the lender. On July 1, 2016, the note was modified to increase the principal amount to \$200,000 and we received the remaining proceeds of \$85,000 on the same date and issued 1,144 common shares as compensation to the lender. The lender has the right to convert the note into shares of the Company’s common stock at fixed conversion price equal to \$13.50 per share, subject to applicable adjustments. We valued the total 2,167 common shares using the stock prices at the respective dates the note proceeds were received and recorded the relative fair value of the shares amounting to \$26,000 as a debt discount to be amortized over the term of the loan. We then computed the effective conversion price of the note, noting that no beneficial conversion feature exists. We also evaluated the convertible note for derivative liability treatment and determined that the instrument does not include certain rights such as price protection like our previous debt financing. Accordingly, we concluded that this financing arrangement did not qualify for derivative accounting treatment.

On July 29, 2016, we sold an additional convertible note for \$100,000 and issued 1,084 common shares to compensate the lender. The lender has the right to convert the notes into shares of the Company’s common stock at a fixed conversion price equal to \$13.50 per share, subject to applicable adjustments. The proceeds were allocated between the convertible note and shares of common stock based on their relative fair values. The relative fair values of the convertible note and the common shares was \$87,241 and \$12,759, respectively. We then computed the effective conversion price of the note, noting that the convertible debt gave rise to a beneficial conversion feature (BCF) of \$12,759. The sum of the relative fair value of the common shares and the BCF of \$25,518 was recorded as a debt discount to be amortized over the term of the loan. We also evaluated the convertible note for derivative liability treatment and determined that the instruments does not include certain rights such as price protection like our previous debt financings. Accordingly, we concluded that this financing arrangements did not qualify for derivative accounting treatment.

On September 15, 2016, we sold an additional convertible note for \$500,000 and issued 6,666 common shares to compensate the lender. The lender has the right to convert the notes into shares of the Company’s common stock at a fixed conversion price equal to \$13.50 per share, subject to applicable adjustments. The convertible note includes an original issue discount of \$40,541 and is subject to a one-time interest of 9% or \$45,000 which was recorded as a debt discount and amortized over the term of the loan. The proceeds were allocated between the convertible note and shares of common stock based on their relative fair values. The relative fair value of the convertible note was \$434,028. The allocation of the gross proceeds to the shares of common stock was \$65,972 and recorded as a debt discount to be amortized over the term of the loan. We then computed the effective conversion price of the note, noting that no beneficial conversion feature exists. We also evaluated the convertible note for derivative liability treatment and determined that the instrument does not include certain rights such as price protection like our previous debt financings. Accordingly, we concluded that this financing arrangement did not qualify for derivative accounting treatment.

The specific terms of the convertible notes and outstanding balances as of December 31, 2016 are listed in the tables below.

Fixed Rate Convertible Notes

Inception Date	Term	Loan Amount	Outstanding Balance	Original Issue Discount	Interest Rate	Deferred Finance Fees	Discount related to fair value of conversion feature and warrants/shares
July 22, 2015	24 months	\$ 2,180,000	\$ 2,180,000	\$ 218,000 ¹	10% ²	\$ 388,532	\$ 2,163,074
September 25, 2015	24 months	1,100,000	1,100,000	110,000 ¹	10% ²	185,956	1,022,052
October 2, 2015	24 months	150,000	150,000	15,000 ¹	10% ²	26,345	140,832
October 6, 2015	24 months	30,000	30,000	3,000 ¹	10% ²	5,168	26,721
October 14, 2015	24 months	50,000	50,000	5,000 ¹	10% ²	8,954	49,377
November 2, 2015	24 months	250,000	250,000	25,000 ¹	10% ²	43,079	222,723
November 10, 2015	24 months	50,000	50,000	5,000 ¹	10% ²	8,790	46,984
November 12, 2015	24 months	215,000	215,000	21,500 ¹	10% ²	38,518	212,399
November 20, 2015	24 months	200,000	200,000	20,000 ¹	10% ²	37,185	200,000
December 4, 2015	24 months	170,000	170,000	17,000 ¹	10% ²	37,352	170,000
December 11, 2015	24 months	360,000	360,000	36,000 ¹	10% ²	75,449	360,000
December 18, 2015	24 months	55,000	55,000	5,500 ¹	10% ²	11,714	55,000
December 31, 2015	24 months	100,000	100,000	10,000 ¹	10% ²	20,634	100,000
January 11, 2016	24 months	100,000	100,000	10,000 ¹	10% ²	24,966	80,034
January 20, 2016	24 months	50,000	50,000	5,000 ¹	10% ²	9,812	40,188
January 29, 2016	24 months	300,000	300,000	30,000 ¹	10% ²	60,887	239,113
February 26, 2016	24 months	200,000	200,000	20,000 ¹	10% ²	43,952	156,048
March 10, 2016	24 months	125,000	125,000	12,500 ¹	10% ²	18,260	106,740
March 18, 2016	24 months	360,000	360,000	36,000 ¹	10% ²	94,992	265,008
March 24, 2016	24 months	106,667	106,667	10,667 ¹	10% ²	15,427	91,240
March 31, 2016	24 months	167,882	167,882	16,788 ¹	10% ²	2,436	165,446
April 5, 2016	24 months	10,000	10,000	1,000 ¹	10% ²	-	10,000
May 24, 2016	7 months	100,000	100,000	7,000	0%	-	20,368
June 15, 2016	6 months	40,000	40,000	-	12%	-	3,680
June 17, 2016	6 months	40,000	40,000	-	12%	-	3,899
June 22, 2016	6 months	35,000	35,000	-	12%	-	3,373
July 6, 2016	6 months	85,000	85,000	-	12%	-	15,048
July 29, 2016	6 months	100,000	100,000	-	12%	-	25,518
September 15, 2016	8 months	500,000	500,000	85,541	9%	-	65,972
		<u>\$ 7,229,549</u>	<u>\$ 7,229,549</u>	<u>\$ 725,496</u>		<u>\$ 1,158,408</u>	<u>\$ 6,060,837</u>

1. The original issue discount is reflected in the first year.

2. The annual interest started accruing in the second year.

As of December 31, 2016, a total of approximately \$291,000 convertible debentures were purchased by related parties who were members of the Company's Board of Directors and management and their family members.

Deferred finance fees included cash commissions amounting to \$621,500 and the fair value of the 2,101,786 warrants issued to the placement agent amounting to \$536,908. For the year ended December 31, 2016, the Company recognized amortization expense related to

the debt discounts indicated above of \$3,876,622. The unamortized debt discounts as of December 31, 2016 related to the convertible debentures and other convertible notes amounted to \$3,142,078.

Revolving Note Payable

On October 28, 2016, an accredited investor (the “*Investor*”) purchased from us a promissory note in the aggregate principal amount of up to \$2,000,000 (the “*Revolving Note*”) due and payable on the earlier of October 28, 2017 (the “*Maturity Date*”) or on the seventh business day after the closing of a Qualified Offering (as defined in the Revolving Note). Although the Revolving Note is dated October 26, 2016, the transaction did not close until October 28, 2016, when we received its initial \$250,000 advance pursuant to the Revolving Note. As a result, on the same day and pursuant to the Revolving Note, we issued to the Investor a Common Stock Purchase Warrant to purchase 20,834 shares of our common stock at an exercise price per share equal to \$12.00 per share. The Investor is obligated to provide us with advances of \$250,000 under the Revolving Note, but the Investor shall not be required to advance more than \$250,000 in any individual fifteen (15) day period and no more than \$500,000 in the thirty (30) day period immediately following the date of the initial advance. Notwithstanding the fifteen (15) day period limitation, on November 2, 2016, November 23, 2016, December 6, 2016 and December 16, 2016, we received \$1,000,000 pursuant to the Revolving Note and we issued to the Investor additional warrants to purchase 83,334 shares of our Common Stock. The terms of the Warrants are identical except for the exercise date, issue date, and termination date.

In the event that a Qualified Offering occurs on or prior to the six (6) month anniversary of October 28, 2016, within seven (7) Business Days of the closing of the Qualified Offering, the Company shall pay a cash fee equal to five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering or, at the option of the Company, issue to the Holder a number of restricted shares of the Company’s common stock equal to (x) five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering divided by (y) the purchase price provided by the documents governing the Qualified Offering. A Qualified Offering means the completion of a public offering of the Company’s securities pursuant to which the Company receives aggregate gross proceeds of at least Seven Million United States Dollars (US\$7,000,000) in consideration of the purchase of its securities and resulting in, pursuant to the effectiveness of the registration statement for such offering, the Company’s common stock being traded on the NASDAQ Capital Market, NASDAQ Global Select Market or the New York Stock Exchange.

In the event that a Qualified Offering occurs following the six (6) month anniversary of October 28, 2016, but prior to the Maturity Date, within seven(7) Business Days of the closing of the Qualified Offering, the Company shall pay a cash fee equal to five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering or, at the option of the Company, issue to the Holder a number of restricted shares of the Company’s common stock equal to (x) five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering divided by (y) the purchase price provided by the documents governing the Qualified Offering.

Interest on the principal balance of the Revolving Note shall be paid in full on the Maturity Date, unless otherwise paid prior to the Maturity Date. Interest shall be assessed as follows: (i) a one-time interest of 10% on all principal amounts advanced prior to April 28, 2017; (ii) the foregoing and 4% on any amount remaining outstanding if the principal amount is repaid between April 28, 2017 and July 28, 2017; or (iii) both of the foregoing and 4% on any amount remaining outstanding if the principal amount is repaid between July 28, 2017 and October 28, 2017.

Broker fees amounting to \$116,500, the one-time interest of \$125,000 and the fair value of the 104,167 warrants issued to the Investor amounting to \$479,730 were recorded as debt discounts and amortized over the term of the revolving note. For the year ended December 31, 2016, the Company recognized amortization expense related to the debt discounts indicated above of \$84,200. The unamortized debt discounts as of December 31, 2016 related to the convertible debentures amounted to \$637,030.

The following table provides a summary of the changes in convertible debt and revolving note payable, net of unamortized discounts, during 2016:

	2016
Balance at January 1,	\$ 277,342
Issuance of convertible debt, face value	2,509,045
Issuance of revolving note payable, face value	1,250,000
Original issue discount	(189,496)
Debt discount from derivative liabilities (embedded conversion option and warrants)	(1,153,817)
Debt discount from beneficial conversion feature	(20,721)
Deferred financing fees	(385,371)
Debt discount related to one-time interest charge	(170,000)
Repayment of convertible debt	(107,000)
Conversion of convertible debt into common stock	(100,000)
Debt discount from shares and warrants issued with the notes	(596,867)
Accretion of interest and amortization of debt discount to interest expense	3,960,822
Balance at December 31,	5,273,937
Less: revolving note payable	612,970
Less: current portion of convertible debt	4,005,702
Convertible debt, long-term portion	<u>\$ 655,265</u>

Other Notes

On January 15, 2015 we signed a Merchant Agreement with a lender. Under the agreement, we received \$150,000 in exchange for rights to all customer receipts until the lender was paid \$187,500, which was collected at the rate of \$744 per business day. The payments were secured by essentially all tangible assets of the Company. \$67,925 of the proceeds were used to pay off the outstanding balance of a previous loan from this lender. The Company paid \$1,875 in fees in connection with this loan. The note was paid off in its entirety prior to December 31, 2015.

On January 29, 2015 we signed a Merchant Agreement with a lender. Under the agreement, we received \$200,000 in exchange for rights to all customer receipts until the lender was paid \$278,000, which was collected at the rate of \$1,985 per business day. The payments were secured by essentially all tangible assets of the Company. The Company paid \$999 in fees in connection with this loan. The note was paid off in its entirety prior to December 31, 2015.

On March 17, 2015 we signed a Merchant Agreement with a lender. Under the agreement, we received \$50,000 in exchange for rights to all customer receipts until the lender was paid \$67,450, which was collected at the rate of \$559 per business day. The payments were secured by essentially all tangible assets of the Company. The Company paid \$999 in fees in connection with this loan. The note was paid off in its entirety prior to December 31, 2015.

On May 29, 2015 we signed a Merchant Agreement with a lender. Under the agreement, we received \$100,000 in exchange for rights to all customer receipts until the lender was paid \$132,000, which was collected at the rate of \$1,098 per business day. The Company paid \$3,999 in fees in connection with this loan. The note was paid off in its entirety prior to December 31, 2015.

On August 28, 2015 we signed a Merchant Agreement with a lender. Under the agreement, we received \$300,000 in exchange for rights to all customer receipts until the lender is paid \$384,000, to be collected at the rate of \$2,560 per business day. The payments are not secured. On the closing date, \$131,710 of the proceeds were used to pay off the outstanding balances of two existing Notes. The Company paid \$6,000 in fees in connection with this loan. The loan was paid off in its entirety prior to December 31, 2016.

During the year ended December 31, 2015, we signed three ninety-day notes with an investor. Under the terms of the notes, the Company received a total of \$600,000. The investor converted these loans, plus \$60,000 in accrued interest into the Company's \$5 million PIPE offering on July 21, 2015. There was no gain or loss on the conversion.

During the year ended December 31, 2015, the Company made payments of \$587,949 in total on the non-convertible debt from non-related parties.

On January 6, 2016 we signed a Merchant Agreement with a lender. Under the agreement we received \$250,000 in exchange for rights to all customer receipts until the lender is paid \$322,500, which is collected at the rate of \$1,280 per business day. The payments were secured by second position rights to all customer receipts until the loan has been paid in full. \$138,840 of the proceeds were used to pay off the outstanding balance of a previous loan from another lender. The Company recognized a gain on the settlement of the previous loan of \$5,044 which was credited to interest expense. The Company paid \$2,500 in fees in connection with this loan. We received an additional \$93,161 in June 2016 under the existing Merchant Agreement. The note was still outstanding as of December 31, 2016 with a balance of \$157,287.

On January 20, 2016 we borrowed \$50,000 from an individual with no interest or fees. We paid back the loan in March 2016.

On February 8, 2016 we signed a Merchant Agreement with a lender. Under the agreement we received \$100,000 in exchange for third position rights to all customer receipts until the lender is paid \$129,900, which is collected at the rate of \$927 per business day. The Company paid \$2,000 in fees in connection with this loan. We received an additional \$125,000 in June 2016 under the existing Merchant Agreement of which \$48,420 was used to pay off the prior loan. The lender provided an additional \$70,000 on August 16, 2016. We repaid a portion of the \$70,000 with \$32,430 remaining as outstanding as of December 31, 2016.

On May 9, 2016 we signed a promissory note with a lender. Under the agreement we received \$200,000 net of a \$6,000 original issue discount and we repaid \$206,000 on August 25, 2016. In connection with this promissory note, we issued warrants exercisable into 3,334 shares of our common stock. The warrants issued in this transaction are immediately exercisable at an exercise price of \$16.50 per share. The warrants have an expiration period of three years from the original issue date. The warrants are subject to adjustment for stock splits, stock dividends or recapitalizations. The warrants were recorded as a component of our Stockholders' Equity. The estimated fair value of the warrants was determined using the binomial model, resulting in an allocation of \$27,349 to the total warrants and recorded as a discount to the note to be amortized over the term of the loan. We evaluated the warrants for derivative liability treatment and determined that these instruments do not include certain rights such as price protection like our previous debt financings. Accordingly, we concluded that these instruments did not qualify for derivative accounting treatment. In August 2016, the lender extended the maturity date of the note from August 11, 2016 to August 25, 2016. Consequently, a penalty interest of \$41,200 was added to the principal amount and settled through the issuance of 3,335 common shares. As of December 31, 2016, the outstanding balance on this note was zero.

On August 26, 2016 we signed a Merchant Agreement with a lender. Under the agreement we received \$122,465 net proceeds in exchange for rights to all customer receipts which is collected at the rate of \$1,386 per business day. The note was still outstanding as of December 31, 2016 with a balance of \$48,440.

Related Party Notes

During the year ended December 31, 2016, the Company received advances from certain officers of the Company amounting to \$20,000. These advances were non-interest bearing and payable on demand. As of December 31, 2016 there are no outstanding notes to related parties.

(9) Stockholders' (Deficit)

Preferred Stock

We are authorized to issue 1,000,000 shares of preferred stock with a par value of \$0.01. Of the 1,000,000 shares of preferred stock:

- 1) 20,000 shares have been designated as Series A Junior Participating Preferred Stock ("*Junior A*")
- 2) 313,960 shares have been designated as Series A Convertible Preferred Stock ("*Series A*")
- 3) 279,256 shares have been designated as Series B Convertible Preferred Stock ("*Series B*")
- 4) 88,098 shares have been designated as Series C Convertible Preferred Stock ("*Series C*")
- 5) 850 shares have been designated as Series D Convertible Preferred Stock ("*Series D*")
- 6) 500 shares have been designated as Series E Convertible Preferred Stock ("*Series E*")
- 7) 240,000 shares have been designated as Series G Convertible Preferred Stock ("*Series G*")
- 8) 10,000 shares have been designated as Series H Convertible Preferred Stock ("*Series H*")
- 9) 21 shares have been designated as Series H2 Convertible Preferred Stock ("*Series H2*")
- 10) 6,250 shares have been designated as Series J Convertible Preferred Stock ("*Series J*")
- 11) 15,000 shares have been designated as Series K Convertible Preferred Stock ("*Series K*")

As of December 31, 2016 and 2015, there were no shares of Junior A, and Series A, B, C, E, and H1 issued and outstanding.

Series D Convertible Preferred Stock

On November 11, 2011, we completed a registered direct offering, pursuant to which we sold an aggregate of 843 units for a purchase price of \$1,000 per unit, resulting in gross proceeds to us of \$843,000 (the "*Series D Placement*"). Each unit ("*Series D Unit*") consisted of (i) one share of Series D Convertible Preferred Stock, \$0.01 par value per share (the "*Series D Convertible Preferred Stock*") convertible into 84 shares of our common stock, (subject to adjustment for stock splits, stock dividends, recapitalization, etc.) and (ii) one five-year warrant to purchase approximately 21 shares of our common stock at a per share exercise price of \$24.30, subject to adjustment as provided in the Warrants ("*Series D Warrant*"). The Series D Warrants will be exercisable beginning on May 11, 2012 and until the close of business on the fifth anniversary of the initial exercise date.

The proceeds from the sale of each Series D Unit were allocated between the Series D Convertible Preferred Stock and the Series D Warrants based on the residual method. The estimated fair value of the Series D Warrants was determined using a binomial formula, resulting in an allocation of the gross proceeds of \$283,725 to the total warrants issued. The allocation of the gross proceeds to the Series D Convertible Preferred Stock was \$559,275. In accordance with the provisions of ASC 470-20, an additional adjustment between Additional Paid in Capital and Accumulated Deficit of \$530,140 was recorded to reflect an implicit non-cash dividend related to the allocation of proceeds between the stock and warrants issued. The \$530,140 represents the value of the adjustment to additional paid in capital related to the beneficial conversion feature of the Series D Convertible Preferred Stock. The value adjustment was calculated by subtracting the fair market value of the underlying common stock on November 10, 2011 issuable upon conversion of the Series D Convertible Preferred Stock from the fair market value of the Series D Convertible Preferred Stock as determined when the Company performed a fair market value allocation of the proceeds to the Series D Convertible Preferred Stock and warrants. The warrants are recorded as a liability. See "Warrant Derivative Liability" below.

The Series D Convertible Preferred Stock will rank senior to the Company's common stock and Series C Convertible Preferred Stock with respect to payments made upon liquidation, winding up or dissolution. Upon any liquidation, dissolution or winding up of the Company, after payment of the Company's debts and liabilities, and before any payment is made to the holders of any junior securities, the holders of Series D Convertible Preferred Stock will first be entitled to be paid \$1,000 per share subject to adjustment for accrued but unpaid dividends.

We may not pay any dividends on shares of common stock unless we also pay dividends on the Series D Convertible Preferred Stock in the same form and amount, on an as-if-converted basis, as dividends actually paid on shares of our common stock. Except for such dividends, no other dividends may be paid on the Series D Convertible Preferred Stock.

Each share of Series D Convertible Preferred Stock is convertible into 84 shares of common stock (based upon an initial conversion price of \$19.50 per share) at any time at the option of the holder, subject to adjustment for stock splits, stock dividends, combinations, and similar recapitalization transactions (the "*Series D Conversion Ratio*"). Subject to certain exceptions, if the Company issues any shares of common stock or common stock equivalents at a per share price that is lower than the conversion price of the Series D Convertible Preferred Stock, the conversion price will be reduced to the per share price at which such shares of common stock or common stock equivalents are issued. Each share of Series D Convertible Preferred Stock will automatically be converted into shares of common stock at the Series D Conversion Ratio then in effect if, after six months from the closing of the Series D Placement, the common stock trades on the OTCQB (or other primary trading market or exchange on which the common stock is then traded) at a price equal to at least 300% of the then effective Series D Convertible Preferred Stock conversion price for 20 out of 30 consecutive trading days with each trading day

having a volume of at least \$50,000. Unless waived under certain circumstances by the holder of the Series D Convertible Preferred Stock, such holder's Series D Convertible Preferred Stock may not be converted if upon such conversion the holder's beneficial ownership would exceed certain thresholds.

In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our shares of common stock are converted or exchanged for securities, cash or other property, or we sell, lease, license or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the Series D Convertible Preferred Stock will be entitled to receive upon conversion of the Series D Convertible Preferred Stock the same kind and amount of securities, cash or property which the holders of the Series D Convertible Preferred Stock would have received had they converted the Series D Convertible Preferred Stock immediately prior to such fundamental transaction.

The holders of Series D Convertible Preferred Stock are not entitled to vote on any matters presented to the stockholders of the Company for their action or consideration at any meeting of stockholders of the Company (or by written consent of stockholders in lieu of meeting), except that the holders of Series D Convertible Preferred Stock may vote separately as a class on any matters that would (i) amend, our Restated Articles of Organization, as amended, in a manner that adversely affects the rights of the Series D Convertible Preferred Stock, (ii) alter or change adversely the powers, preferences or rights of the Series D Convertible Preferred Stock or alter or amend the certificate of designation, (iii) authorize or create any class of shares ranking as to dividends, redemption or distribution of assets upon liquidation senior to, or otherwise pari passu with, the Series D Convertible Preferred Stock, or (iv) increase the number of authorized shares of Series D Convertible Preferred Stock.

If, within 12 months of the initial issuance of the Series D Convertible Preferred Stock, we issue any common stock, common stock equivalents, indebtedness or any combination thereof (a “*Subsequent Financing*”), the holders of Series D Convertible Preferred Stock will have the right to participate on a pro-rata basis in up to 50% of such Subsequent Financing.

Series D Warrants

The Series D Warrants originally had an exercise price equal to \$24.30 per share of common stock. In April 2012, the number of Series D Warrants increased by 17,681 to a total of 34,930 and each Series D Warrant had an exercise price reset to \$12.00 per share of common stock. In December of 2013 the number of Series D Warrants increased by 20,958 to a total of 55,887 and each Series D Warrant had an exercise price reset to \$7.50 per share of common stock. The Series D Warrants will be exercisable beginning on the six-month anniversary of the date of issuance and expire five years from the initial exercise date. The Series D Warrants permit the holder to conduct a “cashless exercise” at any time a registration statement registering, or the prospectus contained therein, is not available for the issuance of the shares of common stock issuable upon exercise of the Series D Warrant, and under certain circumstances at the expiration of the Series D Warrants. The exercise price and/or number of shares of common stock issuable upon exercise of the Series D Warrants are subject to adjustment for certain stock dividends, stock splits or similar capital reorganizations, as set forth in the Warrants. The exercise price is also subject to adjustment in the event that we issue any shares of common stock or common stock equivalents at a per share price that is lower than the exercise price for the Series D Warrants then in effect. Upon any such issuance, subject to certain exceptions, the exercise price will be reduced to the per share price at which such shares of common stock or common stock equivalents are issued and number of Series D Warrant shares issuable thereunder shall be increased such that the aggregate exercise price payable thereunder, after taking into account the decrease in the exercise price, shall be equal to the aggregate exercise price prior to such adjustment. Unless waived under certain circumstance by the holder of a Series D Warrant, such holder may not exercise the Series D Warrant if upon such exercise the holder’s beneficial ownership of the Company’s common stock would exceed certain thresholds.

In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our shares of common stock are converted or exchanged for securities, cash or other property, or we sell, lease, license or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the Series D Warrants will be entitled to receive upon exercise of the Series D Warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised the Series D Warrants immediately prior to such fundamental transaction.

Series G Convertible Preferred Stock

On July 6 and November 15, 2012, we completed a private placement, pursuant to which we sold an aggregate of 4,844 units for a purchase price of \$150.00 per unit (the “Series G Purchase Price”), resulting in gross proceeds to us of \$726,600 (the “*Series G Private Placement*”). Each unit (“*Series G Unit*”) consists of (i) one share of Series G Convertible Preferred Stock, \$0.01 par value per share (the “Series G Preferred Stock”) convertible into 1 share of our common stock, (subject to adjustment for stock splits, stock dividends, recapitalization, etc.) and (ii) a three-year warrant to purchase 1 share of our common stock at a per share exercise price of \$15.00 (the “*Series G Warrant*”). The Series G Warrants will be exercisable until the close of business on the third anniversary of the applicable closing date of the Series G Private Placement.

Each share of Series G Preferred Stock will receive a cumulative dividend at the annual rate of (i) four percent (4%) on those shares of Series G Preferred Stock purchased from the Company by an individual purchaser with an aggregate investment of less than \$100,000, (ii) six percent (6%) on those shares of Series G Preferred Stock purchased from the Company by an individual purchaser with an aggregate investment of at least \$100,000 but less than \$250,000, and (iii) twelve percent (12%) on those shares of Series G Preferred Stock purchased from the Company by an individual purchaser with an aggregate investment of at least \$250,000. Dividends accruing on the Series G Preferred Stock shall accrue from day to day until, and shall be paid within fifteen (15) days of, the first anniversary of, the original issue date of the Series G Preferred Stock; provided, however, if any shares of the Company’s Series E Preferred Stock are outstanding at such time, payment of the accrued dividends on the Series G Preferred Stock shall be deferred until no such shares of Series E Convertible Preferred Stock remain outstanding. The Company may pay accrued dividends on the Series G Preferred Stock in cash or in shares of its common stock equal to the volume weighted average price of the common stock as reported by the OTCQB for the ten (10) trading days immediately preceding the Series G’s first anniversary.

At the election of the Company and upon required advanced notice, each share of Series G Preferred Stock will automatically be converted into shares of common stock at the Conversion Ratio then in effect: (i) if, after 6 months from the original issuance date of the Series G Preferred Stock, the common stock trades on the OTCQB (or other primary trading market or exchange on which the common stock is then traded) at a price equal to at least \$22.50, for 7 out of 10 consecutive trading days with average daily trading volume of at least 334 shares, (ii) on or after the first anniversary of the original issuance date of the Series G Preferred Stock or (iii) upon completion of a firm-commitment underwritten registered public offering by the Company at a per share price equal to at least \$22.50, with aggregate gross proceeds to the Company of not less than \$2.5 million. Unless waived under certain circumstances by the holder of the Series G Preferred Stock, such holder’s Series G Preferred Stock may not be converted if upon such conversion the holder’s beneficial ownership would exceed certain thresholds.

The holders of Series G Preferred Stock are not entitled to vote on any matters presented to the stockholders of the Company for their action or consideration at any meeting of stockholders of the Company (or by written consent of stockholders in lieu of meeting), except as required by law.

Series G Warrants

The Series G Warrants issued in the Series G Private Placement had an exercise price equal to \$15.00 per share and expired on July 6, 2015.

Series H Convertible Preferred Stock

On December 28, 2012 the Company amended the Articles of Incorporation to authorize 10,000 shares of Series H Convertible Preferred Stock. On January 4, 2013, the Company reported that it had entered into a securities purchase and exchange agreement with an investor, pursuant to which the Company agreed to exchange 33,334 shares of the Company's common stock, par value \$0.01 per share of common stock held by the investor for an aggregate of 10,000 shares of a newly created series of preferred stock, designated Series H Convertible Preferred Stock, par value \$0.01 per share (the "*Series H Preferred Stock*") in a non-cash transaction. The investor originally purchased the common stock from the Company for \$24.08 per share. The exchange ratio was 4 shares of common stock per share of Series H Preferred Stock at a stated conversion price of \$24.08 per share.

Series H2 Convertible Preferred Stock

On December 23, 2014 the Company amended the Articles of Incorporation to authorize 21 shares of Series H2 Convertible Preferred Stock. On December 23, 2014, the Company reported that it had entered into a securities purchase and exchange agreement with an investor, pursuant to which the Company agreed to exchange 70,000 shares of the Company's common stock, par value \$0.01 per share of common stock held by the investor for an aggregate of 21 shares of a newly created series of preferred stock, designated Series H2 Convertible Preferred Stock, par value \$0.01 per share (the "*Series H2 Preferred Stock*") in a non-cash transaction. The investor originally acquired the common stock from the Company for \$7.50 per share in the warrant reset transaction on December 23, 2014. The exchange ratio was 3,334 shares of common stock per share of Series H2 Preferred Stock at a stated conversion price of \$7.50 per share.

Series J Convertible Preferred Stock

On February 6, March 28 and May 20, 2013, the Company entered into a Securities Purchase with various individuals pursuant to which the Company sold an aggregate of 5,087.5 units for a purchase price of \$400.00 per unit (the "Purchase Price"), or an aggregate Purchase Price of \$2,034,700. Each unit purchased in the initial tranche consists of (i) one share of a newly created series of preferred stock, designated Series J Convertible Preferred Stock, par value \$0.01 per share (the "*Series J Convertible Preferred Stock*"), convertible into 34 shares of the Company's common stock, par value \$0.01 per share and (ii) a warrant to purchase 34 shares of common stock at an exercise price equal to \$12.00 per share. The warrants expire three years from the issuance date.

From the date of issuance of any shares of Series J Convertible Preferred Stock and until the earlier of the first anniversary of such date, the voluntary conversion of any shares of Series J Convertible Preferred Stock, or the date of any mandatory conversion (solely under the Company's control based upon certain triggering events) of the Series J Convertible Preferred Stock, dividends will accrue on each share of Series J Convertible Preferred Stock at an annual rate of (i) four percent (4%) of the Purchase Price on those shares of Series J Convertible Preferred Stock purchased from the Company pursuant to the Securities Purchase Agreement by an individual purchaser who purchased from the Company shares of Series J Convertible Preferred Stock with an aggregate Purchase Price of less than \$250,000, and (ii) six percent (6%) of the Purchase Price on those shares of Series J Convertible Preferred Stock purchased from the Company pursuant to the Securities Purchase Agreement by an individual purchaser who purchased shares of Series J Convertible Preferred Stock with an aggregate purchase price of at least \$250,000. Dividends accruing on the Series J Convertible Preferred Stock shall accrue from day to day until the earlier of the first anniversary of the date of issuance of such shares of Series J Convertible Stock, the voluntary conversion of any shares of Series J Convertible Preferred Stock, or the date of any mandatory conversion of the Series J Convertible Preferred Stock, and shall be paid, as applicable, within fifteen (15) days of the first anniversary of the original issue date of the Series J Convertible Preferred Stock, within five (5) days of the voluntary conversion of shares of the Series J Convertible Preferred Stock, or within five (5) days of the mandatory conversion of shares of the Series J Convertible Preferred Stock. The Company may pay accrued dividends on the Series J Convertible Preferred Stock in cash or, in the sole discretion of the Board of Directors of the Company, in shares of its common stock in accordance with a specified formula.

Each share of Series J Convertible Preferred Stock is convertible into 34 shares of common stock at the option of the holder on or after the six-month anniversary of the issuance of such share, subject to adjustment for stock splits, stock dividends, recapitalizations and similar transactions (the "Conversion Ratio"). Unless waived under certain circumstances by the holder of Series J Convertible Preferred Stock, such holder's shares of Series J Convertible Preferred Stock may not be converted if upon such conversion the holder's beneficial ownership would exceed certain thresholds.

At the election of the Company and upon required advance notice, each share of Series J Convertible Preferred Stock will automatically be converted into shares of common stock at the Conversion Ratio then in effect: (i) on or after the six-month anniversary of the original issuance date of the Series J Convertible Preferred Stock, the common stock trades on the OTCQB (or other primary trading market or exchange on which the common stock is then traded) at a price per share equal to at least \$24.00 for 7 out of 10 consecutive trading days with average daily trading volume of at least 1,667 shares, (ii) on the first anniversary of the original issuance date of the Series J Convertible Preferred Stock or (iii) within three days of the completion of a firm-commitment underwritten registered public offering by the Company at a per share price equal to at least \$24.00, with aggregate gross proceeds to the Company of not less than \$2.5 million. Unless waived under certain circumstances by the holder of the Series J Convertible Preferred Stock, such holder's Series J Convertible Preferred Stock may not be converted if upon such conversion the holder's beneficial ownership would exceed certain thresholds.

The holders of Series J Convertible Preferred Stock are not entitled to vote on any matters presented to the stockholders of the Company for their action or consideration at any meeting of stockholders of the Company (or by written consent of stockholders in lieu of meeting), except as required by law.

Series J Warrants

The Series J Warrants issued in the Series J Private Placement had an exercise price equal to \$12.00 per share and expired on February 6, March 28 and May 20, 2016.

Registration Rights Agreement

In connection with the Private Placement, the Company has agreed that, if, at any time after February 1, 2014, the Company files a Registration Statement relating to an offering of equity securities of the Company (the "Registration Statement"), subject to certain exceptions, including a Registration Statement relating solely to an offering or sale of securities having an aggregate public offering price of less than \$5,000,000, the Company shall include in the Registration Statement the resale of the shares of common stock underlying the Warrants. Shares of common stock issued upon conversion of Series J Convertible Preferred Stock or in payment of the dividend on the Series J Convertible Preferred Stock will not be registered and will not be subject to registration rights. This right is subject to customary conditions and procedures.

Series K Convertible Preferred Stock

On December 12, 2013, the Company entered into a Securities Purchase with various individuals pursuant to which the Company sold an aggregate of 4,000 units for a purchase price of \$250.00 per unit (the "Purchase Price"), for an aggregate Purchase Price of \$1,000,000. Each unit purchased in the initial tranche consists of (i) one share of a newly created series of preferred stock, designated Series K Convertible Preferred Stock, par value \$0.01 per share (the "Series K Convertible Preferred Stock"), convertible into 34 shares of the Company's common stock, par value \$0.01 per share and (ii) a warrant to purchase 17 shares of common stock at an exercise price equal to \$9.38 per share. The warrants expire three years from the issuance date. Of the \$1,000,000 invested in the Private Placement, \$572,044 was received in cash and \$427,956 was from the conversion of outstanding indebtedness and interest. The Company incurred \$43,334 of fees in conjunction with this private placement. The purchasers in the initial tranche of the private placement consisted of certain existing and new investors in the Company as well as all of the members of the Company's Board of Directors.

From the date of issuance of any shares of Series K Convertible Preferred Stock and until the earlier of the first anniversary of such date, the voluntary conversion of any shares of Series K Convertible Preferred Stock, or the date of any mandatory conversion (solely under the Company's control based upon certain triggering events) of the Series K Convertible Preferred Stock, dividends will accrue on each share of Series K Convertible Preferred Stock at an annual rate of (i) four percent (4%) of the Purchase Price on those shares of Series K Convertible Preferred Stock purchased from the Company pursuant to the Securities Purchase Agreement by an individual purchaser who purchased from the Company shares of Series K Convertible Preferred Stock with an aggregate Purchase Price of less than \$100,000, and (ii) six percent (6%) of the Purchase Price on those shares of Series K Convertible Preferred Stock purchased from the Company pursuant to the Securities Purchase Agreement by an individual purchaser who purchased shares of Series K Convertible Preferred Stock with an aggregate purchase price of at least \$100,000. Dividends accruing on the Series K Convertible Preferred Stock shall accrue from day to day until the earlier of the first anniversary of the date of issuance of such shares of Series K Convertible Stock, the voluntary conversion of any shares of Series K Convertible Preferred Stock, or the date of any mandatory conversion of the Series K Convertible Preferred Stock, and shall be paid, as applicable, within fifteen (15) days of the first anniversary of the original issue date of the Series K Convertible Preferred Stock, within five (5) days of the voluntary conversion of shares of the Series K Convertible Preferred Stock, or within five (5) days of the mandatory conversion of shares of the Series K Convertible Preferred Stock. The Company may pay accrued dividends on the Series K Convertible Preferred Stock in cash or, in the sole discretion of the Board of Directors of the Company, in shares of its common stock in accordance with a specified formula.

Each share of Series K Convertible Preferred Stock is convertible into 34 shares of common stock at the option of the holder on or after the six-month anniversary of the issuance of such share, subject to adjustment for stock splits, stock dividends, recapitalizations and similar transactions (the "Conversion Ratio"). Unless waived under certain circumstances by the holder of Series K Convertible Preferred Stock, such holder's shares of Series K Convertible Preferred Stock may not be converted if upon such conversion the holder's beneficial ownership would exceed certain thresholds.

At the election of the Company and upon required advance notice, each share of Series K Convertible Preferred Stock will automatically be converted into shares of common stock at the Conversion Ratio then in effect: (i) on or after the six-month anniversary of the original issuance date of the Series K Convertible Preferred Stock, the common stock trades on the OTCQB (or other primary trading market or exchange on which the common stock is then traded) at a price per share equal to at least \$24.00 for 7 out of 10 consecutive trading days with average daily trading volume of at least 1,667 shares, (ii) on the first anniversary of the original issuance date of the Series K Convertible Preferred Stock or (iii) within three days of the completion of a firm-commitment underwritten registered public offering by the Company at a per share price equal to at least \$24.00, with aggregate gross proceeds to the Company of not less than \$2.5 million. Unless waived under certain circumstances by the holder of the Series K Convertible Preferred Stock, such holder's Series K Convertible Preferred Stock may not be converted if upon such conversion the holder's beneficial ownership would exceed certain thresholds.

The proceeds from the sale of each Series K Unit were allocated between the Series K Convertible Preferred Stock and the Series K Warrants based on the relative fair value method. The estimated fair value of the Series K Warrants was determined using a Black-Scholes formula, resulting in an allocation of the gross proceeds of \$271,422 to the total warrants issued. The allocation of the gross proceeds to the Series K Convertible Preferred Stock was \$685,245, net of \$43,334 in fees. In accordance with the provisions of ASC 470-20, an additional adjustment in the aggregate between Additional Paid in Capital and Accumulated Deficit of \$1,495,415 was recorded for all tranches of Series K to reflect an implicit, deemed non-cash dividend related to the allocation of proceeds between the stock and warrants issued. The \$1,495,415 represents the aggregate value of the adjustment to additional paid in capital related to the beneficial conversion feature of the Series K Convertible Preferred Stock. The value adjustment was calculated by subtracting the fair market value of the underlying common stock on the closing dates issuable upon conversion of the Series K Convertible Preferred Stock from the fair market value of the Series K Convertible Preferred Stock as determined when the Company performed a fair market value allocation of the proceeds to the Series K Convertible Preferred Stock and warrants.

On January 29, 2014, the Company entered into a Securities Purchase Agreement with various accredited investors, pursuant to which the Company sold an aggregate of 4,875 units for a purchase price of \$250.00 per unit or an aggregate Purchase Price of \$1,218,750. This was the second tranche of a \$1.5 million private placement previously disclosed by the Company in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2013, which is incorporated by reference herein. The Purchasers in the second tranche of the Private Placement consisted of certain existing and new investors in the Company, as well as all of the members of the Company's board of directors.

Each unit purchased in the second tranche consists of (i) one share of Series K Convertible Preferred Stock, par value \$0.01 per share, convertible into 34 shares of the Company's common stock, par value \$0.01 per share and (ii) a warrant to purchase 17 shares of common stock at an exercise price equal to \$9.38 per share, with a term expiring on January 29, 2017.

On February 28, 2014, the Company entered into a Securities Purchase Agreement with various accredited investors, pursuant to which the Company sold an aggregate of 1,854 units for a purchase price of \$340.00 per unit or an aggregate Purchase Price of \$630,360. This was the third tranche of a \$1.5 million private placement previously disclosed by the Company in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2013, which is incorporated by reference herein. The Purchasers in the third tranche of the Private Placement consisted of certain existing and new investors in the Company.

Each unit purchased in the third tranche consists of (i) one share of Series K Convertible Preferred Stock, par value \$0.01 per share convertible into 34 shares of the Company's common stock, par value \$0.01 per share and (ii) a warrant to purchase 17 shares of common stock at an exercise price equal to \$12.75 per share, with a term expiring on February 28, 2017.

On June 30, 2014, the Company entered into a Securities Purchase Agreement with various accredited investors, pursuant to which the Company sold an aggregate of 734 units for a purchase price of \$300.00 per unit or an aggregate Purchase Price of \$220,000. This was the fourth tranche of a \$1.5 million private placement previously disclosed by the Company in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2013, which is incorporated by reference herein. The Purchasers in the fourth tranche of the Private Placement consisted of certain existing and new investors in the Company.

Each unit purchased in the fourth tranche consists of (i) one share of Series K Convertible Preferred Stock, par value \$0.01 per share convertible into 34 shares of the Company's common stock, par value \$0.01 per share and (ii) a warrant to purchase 17 shares of common stock at an exercise price equal to \$11.25 per share, with a term expiring on June 30, 2017.

On November 12, 2014, the Company entered into a Securities Purchase Agreement with various accredited investors, pursuant to which the Company sold an aggregate of 1,052 units for a purchase price of \$250.00 per unit or an aggregate Purchase Price of \$263,000. This was the fifth tranche of a \$1.5 million private placement previously disclosed by the Company in its Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2013, which is incorporated by reference herein. The Purchasers in the fourth tranche of the Private Placement consisted of certain existing and new investors in the Company.

Each unit purchased in the fifth tranche consists of (i) one share of Series K Convertible Preferred Stock, par value \$0.01 per share convertible into 34 shares of the Company's common stock, par value \$0.01 per share and (ii) a warrant to purchase 17 shares of common stock at an exercise price equal to \$9.38 per share, with a term expiring on November 12, 2017.

The Private Placement was originally expected to raise \$1.5 million and close on or before January 31, 2014. On January 29, 2014, the Company's Board of Directors voted to increase the subscription amount of the Private Placement by \$718,750. The Board of Directors also voted to extend the Private Placement until February 28, 2014. On February 28, 2014 the Company's Board of Directors voted to increase the subscription amount once again to a total of \$3.5 million and extended the closing to April 4, 2014. On April 13, 2014 the Company's Board of Directors voted to increase the subscription amount by \$1 million, to a total of \$4.5 million, and extended the closing to May 31, 2014. On July 7, 2014 the Company's Board of Directors voted to extend the closing to August 15, 2014. Together with the initial tranche of \$1,000,000 that closed on December 12, 2013, the second tranche of \$1,218,750 that closed January 29, 2014, the third tranche of \$630,360 that closed February 28, 2014, the fourth tranche of \$220,000 that closed June 30, 2014, and the fifth tranche of \$263,000 that closed November 12, 2014, the total consideration received by the Company in the Private Placement is \$3,332,110, which is comprised of \$2,511,404 in cash and \$820,706 from the conversion of outstanding indebtedness and Board of Director fees. The placement was closed after the November 12, 2014 round.

On September 22, 2014 the Company issued 2,134 shares of common stock for the conversion of 64 shares of Series K Preferred Convertible Stock.

In connection with the Series K Warrants, we calculated the fair value of the warrants received as described above using the Black-Scholes formula with the below assumptions:

Assumptions	Series K Warrants December 12, 2013	Series K Warrants January 29, 2014	Series K Warrants February 28, 2014	Series K Warrants June 30, 2014	Series K Warrants November 12, 2014
Contractual life (in months)	36	36	36	36	36
Expected volatility	136.1	152.4	152.7	153.9	153.9
Risk-free interest rate	0.39%	0.39%	0.39%	0.90%	0.90%
Exercise price	\$ 9.38	\$ 9.38	\$ 12.75	\$ 11.25	\$ 9.38
Fair value per warrant	\$ 6.00	\$ 9.00	\$ 11.10	\$ 8.70	\$ 6.90

The holders of Series K Convertible Preferred Stock are not entitled to vote on any matters presented to the stockholders of the Company for their action or consideration at any meeting of stockholders of the Company (or by written consent of stockholders in lieu of meeting), except as required by law.

Series K Warrants

The warrants issued in the Private Placement have an exercise price equal to \$9.38 per share, for the December 12, 2013 and January 29, 2014 warrants, \$12.75 per share for the February 28, 2014 warrants, \$11.25 per share for the June 30, 2014 warrants and \$9.38 per share for the November 12, 2014 warrants, with a term expiring three years from the issuance date. The warrants also permit the holder to conduct a "cashless exercise" at any time the holder of the warrant is an affiliate of the Company. The exercise price and/or number of shares issuable upon exercise of the warrants will be subject to adjustment for stock dividends, stock splits or similar capital reorganizations, as set forth in the warrant agreement.

Subject to the terms and conditions of the warrants, at any time commencing six months from the closing date of the sale of Units under the Securities Purchase Agreement the Company has the right to call the warrants for cancellation if the volume weighted average price of its common stock on the OTCQB (or other primary trading market or exchange on which the common stock is then traded) equals or exceeds three times the per share exercise price of the warrants for either (i) 10 consecutive trading days or (ii) 15 out of 25 consecutive trading days.

Registration Rights Agreement

In connection with the Private Placement, the Company has agreed that, if, at any time after February 1, 2014, the Company files a Registration Statement relating to an offering of equity securities of the Company (the "Registration Statement"), subject to certain exceptions, including a Registration Statement relating solely to an offering or sale of securities having an aggregate public offering price of less than \$5,000,000, the Company shall include in the Registration Statement the resale of the shares of common stock underlying the warrants. Shares of common stock issued upon conversion of Series K Convertible Preferred Stock or in payment of the dividend on the Series K Convertible Preferred Stock will not be registered and will not be subject to registration rights. This right is subject to customary conditions and procedures.

Common Stock

Stock Options and Warrants

Our stockholders approved our amended 2005 Equity Incentive Plan (the "2005 Plan") pursuant to which an aggregate of 1,800,000 shares of our common stock were reserved for issuance upon exercise of stock options or other equity awards made under the 2005 Plan. Under the 2005 Plan, we may award stock options, shares of common stock, and other equity interests in the Company to employees, officers, directors, consultants, and advisors, and to any other persons the Board of Directors deems appropriate. As of December 31, 2016, options to acquire 38,459 shares were outstanding under the 2005 Plan.

On December 12, 2013 at the Company's special meeting the shareholders approved the 2013 Equity Incentive Plan (the "2013 Plan") pursuant to which 3,000,000 shares of our common stock were reserved for issuance upon exercise of stock options or other equity awards under the 2013 Plan. Under the Plan, we may award stock options, shares of common stock, and other equity interests in the Company to employees, officers, directors, consultants, and advisors, and to any other persons the Board of Directors deems appropriate. As of December 31, 2016, options to acquire 68,250 shares were outstanding under the Plan with 2,931,750 shares available for future grant under the 2013 Plan.

On November 29, 2015 the Company's Board of Directors adopted the 2015 Nonqualified Stock Option Plan (the "2015 Plan") pursuant to which 5,000,000 shares of our common stock were reserved for issuance upon exercise of non-qualified stock options under the 2015 Plan. Under the Plan, we may award non-qualified stock options in the Company to employees, officers, directors, consultants, and advisors, and to any other persons the Board of Directors deems appropriate. As of December 31, 2016, non-qualified options to acquire 68,934 shares were outstanding under the Plan with 4,931,066 shares available for future grants under the 2015 Plan.

All of the outstanding non-qualified options had an exercise price that was at or above the Company's common stock share price on December 31, 2016.

The following tables summarize information concerning options and warrants outstanding and exercisable:

	Stock Options		Warrants		Total	
	Shares	Weighted Average price per share	Shares	Weighted Average price per share	Shares	Exercisable
Balance outstanding, January 1, 2015	113,542	\$ 15.30	639,407	\$ 14.70	752,949	695,271
Granted	83,334	12.00	361,239	12.00	444,573	
Exercised	-	-	-	-	-	
Expired	(6,834)	30.00	(26,390)	9.30	(33,224)	
Forfeited	(4,334)	21.00	-	-	(4,334)	
Balance outstanding, December 31, 2015	185,708	\$ 13.20	974,256	\$ 13.20	1,159,964	1,055,483
Granted	-	-	272,652	12.60	272,652	
Exercised	-	-	(2,334)	9.30	(2,334)	
Expired	(6,200)	30.00	(362,585)	16.50	(368,785)	
Forfeited	(3,866)	15.30	-	-	(3,867)	
Balance outstanding, December 31, 2016	175,642	\$ 12.60	881,989	\$ 12.00	1,057,630	991,032

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Number of Options	Weighted Average Remaining Contractual Life (Years)	Exercise Price	Number of Options	Weighted Average Remaining Contractual Life (Years)	Exercise Price
\$9.00 - \$11.70	54,184	7.7	\$ 9.00	44,759	7.7	\$ 9.00
12.00 - 14.70	92,867	8.7	12.00	48,489	8.4	12.00
15.00 - 17.70	7,541	5.6	15.00	7,542	5.6	15.00
18.00 - 20.70	12,850	3.1	18.00	12,850	3.1	18.00
21.00 - 37.50	8,200	2.3	30.00	8,200	2.3	30.00
\$9.00 - \$37.50	175,642	7.6	\$ 12.60	121,840	7.1	\$ 12.90

There was \$369,224 of total unrecognized compensation cost, net of estimated forfeitures, related to non-vested stock options granted as of December 31, 2016. This cost is expected to be recognized over a period of 1.81 years, and will be adjusted for any future changes in estimated forfeitures.

The Series D Warrants issued in connection with the registered direct offering of Series D Convertible Preferred are measured at fair value and liability-classified because the Series D Warrants contain "down-round protection" and therefore, do not meet the scope exception for treatment as a derivative under ASC 815, *Derivatives and Hedging*, ("ASC 815"). Since "down-round protection" is not an input into the calculation of the fair value of the warrants, the warrants cannot be considered indexed to the Company's own stock which is a requirement for the scope exception as outlined under ASC 815. The estimated fair value of the warrants was determined using the binomial model, resulting in an allocation of the gross proceeds \$283,725 to the warrants issued in the Series D registered direct offering. The fair value will be affected by changes in inputs to that model including our stock price, expected stock price volatility, the contractual term, and the risk-free interest rate. We will continue to classify the fair value of the warrants as a liability until the warrants are exercised, expire or are amended in a way that would no longer require these warrants to be classified as a liability, whichever comes first. The down-round protection for the Series D Warrants survives for the life of the Series D Warrants, which ends in May 2017.

In connection with the senior secured convertible debentures issued in our private placement with closings in 2015 and 2016, we issued warrants to the lenders to purchase an aggregate 292,262 and 83,902 shares of the Common Stock, respectively, at an exercise price of \$12.00 per share, expiring five years after the issuance date. We also issued, in 2015 and 2016, warrants to the placement agent to purchase an aggregate 56,310 and 13,750 shares of the Common Stock, respectively, at an exercise price of \$12.00 per share, expiring five years after the issuance date.

On December 31, 2015, we extended the expiration dates to two more years on certain warrants related to bridge loans. These warrants were originally issued with a three-year expiration. The incremental value for the warrant extension was \$69,627 which was recognized as interest expense.

In 2015, we recorded expense of \$93,488 related to warrants issued an investor relations firm in 2014 to purchase 10,000 shares of restricted common stock.

In November 2016 we issued warrants to purchase 11,000 shares of restricted common stock to an investor relations firm for services rendered with a total fair value of \$84,735.

Common Stock Issuances

With respect to the convertible debenture for \$223,000 signed by the Company on December 4, 2013, a lender, with the prior approval of the Company, chose to convert a portion of the outstanding note balance into shares of the Company's common stock, and to extend the note for approximately 45 days after each conversion, as follows:

On January 14, 2015 \$25,000 was converted into 3,333 shares of the Company's common stock.

On February 25, 2015 \$38,000 was converted into 4,691 shares of the Company's common stock.

On April 10, 2015 \$35,000 was converted into 4,667 shares of the Company's common stock.

On May 29, 2015 \$35,000 was converted into 4,667 shares of the Company's common stock.

On July 21, 2015 \$20,000 was converted into 2,667 shares of the Company's common stock.

On August 13, 2015 \$40,000 was converted into 5,333 shares of the Company's common stock.

On September 25, 2015 \$30,000 was converted into 4,000 shares of the Company's common stock.

For each extension, the Company paid a fee of \$13,000, \$13,000, \$10,000, and \$8,000, respectively. This note was paid off in its entirety on November 5, 2015.

During the year ended December 31, 2015, the Company issued 58,503 shares with a fair value of \$457,030 for consulting and investor relation services.

On August 14, 2015, the Company closed a Securities Exchange Agreement with Everest Investments Holdings of Warsaw, Poland under which Everest purchased 33,334 shares of the Company's restricted Common Stock at a purchase price of \$15.00/share. In exchange, the Company received 601,500 shares of Everest Investments ("Everest"), a publicly-traded company on the Main Market of the Warsaw Stock Exchange. The shares of Everest were valued at approximately \$400,000 as of the closing date.

With respect to the convertible debenture for \$150,000 signed by the Company on June 4, 2014, a lender, with prior approval of the Company, chose to convert a portion of the outstanding note balance into shares of the Company's common stock, and to extend the note for approximately 30 days after each conversion, as follows:

On February 18, 2015 \$25,000 was converted into 3,333 shares of the Company's common stock.

On March 18, 2015 \$22,500 was converted into 3,000 shares of the Company's common stock.

On March 31, 2015 \$27,500 was converted into 3,667 shares of the Company's common stock.

On April 17, 2015 \$30,000 was converted into 4,000 shares of the Company's common stock.

With respect to the convertible debenture for \$75,000 signed by the Company on November 10, 2014, a lender, upon the request of the Company, on June 8, 2015 agreed to extend the conversion date of the note until July 20, 2015. The lender received 1,333 shares of the Company's common stock in exchange for the extension. The Company recorded \$10,000 to interest expense for this transaction. This note was paid off in its entirety on July 24, 2015.

On various dates in December 2015, \$58,919 of existing convertible debt and interest was converted into 7,856 shares of the Company's common stock.

On April 22, 2016, we issued 766 shares of common stock in connection with a cashless exercise of 2,333 warrants.

On May 6, 2016, all remaining Series K preferred shareholders except one converted 4,600 shares of preferred stock into 153,333 shares of the Company's common stock. The Company issued 8,248 shares of common stock to pay the accrued dividend of \$63,413 on Series K preferred stock.

On May 13, 2016, we issued 14,028 shares of common stock to convert \$117,837 of convertible note principal and related interest. See Note 8.

On various dates from January to September 2016, we issued a total of 9,917 shares of common stock in connection with the convertible

notes issued to lenders. We also issued 3,335 shares of common stock to settle debt of \$41,200. See Note 8.

On August 29, 2016, a Series J preferred shareholder converted 25 shares of preferred stock into 833 shares of the Company's common stock. The Company issued 37 shares of common stock to pay the accrued dividend of \$442 on Series J preferred stock.

From August 29, 2016 through December 31, 2016, we completed five tranches of a private placement, pursuant to which we sold an aggregate of 50,834 shares of common stock, \$0.01 par value, for a purchase price of \$12.00 per share, resulting in gross proceeds to us of \$610,000. The shares were issued and sold to a total of 2 accredited investors pursuant to a securities purchase agreement entered into as of August 29, 2016. The investors received warrants to purchase 50,834 shares of the Company's common stock at \$15.00 exercise price. The warrants expire 5 years after issuance. We also incurred stock issuance costs related to broker and legal fees of \$79,035 which were charged to additional paid in capital.

On various dates from January to December 2016 the Company issued 25,167 shares of restricted common stock to investor relations firms for services rendered with a total fair value of \$332,696.

(10) Subsequent Events

On March 21, 2017, we received an eight-month, non-convertible loan of \$170,000 from an accredited investor. The loan earns an annual interest rate of 10% and includes a 10% original issue discount. We also agreed to issue the investor 5,667 shares of restricted common stock.

On March 16, 2017, we awarded 22,000 incentive stock options to certain employees and 61,834 non-qualified stock options to officers, consultants and directors of the Company. Terms of the stock options include the following significant items: (i) \$8.40 exercise price, (ii) 10-year life, (iii) 36 month vesting equally per month for employees and 12 month vesting equally per month for directors, (iv) options vest immediately upon change in-control.

On March 14, 2017, we received an eight-month, non-convertible loan of \$250,000 from a privately-held investment firm. The loan earns an annual interest rate of 10% and includes a 10% original issue discount. We also agreed to issue the investor 8,333 shares of restricted common stock.

On March 2, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$75,000. The Company paid no fees in connection with this loan.

On February 15, 2017, we received a six-month, non-convertible loan of \$110,000 from each of two accredited investors. We agreed to issue each investor 5,667 shares of restricted common stock. The loans earn no interest but carry a 10% original issue fee.

On February 6, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$125,000. The Company paid \$1,250 in fees in connection with this loan. Under the agreement, \$16,180 was used to pay off the prior loan.

We received \$250,000 in January 2017 and \$500,000 in February 2017 pursuant to the October Revolving Note and we issued to the Investor additional warrants to purchase 62,500 shares of our common stock. The terms of the Warrants are identical except for the exercise date, issue date, and termination date. Interest on the principal balance of the Revolving Note shall be paid in full on the Maturity Date, unless otherwise paid prior to the Maturity Date.

On January 17, 2017, we signed a one-year agreement with an investor relations firm. We have the right to terminate the agreement within 10 days of the end of each three-month period. We are committed to pay the IR firm \$25,000 for each three-month term, in three equal monthly allotments, should we choose to keep them under contract. We also have awarded the IR firm warrants to purchase the Company's restricted common stock at an exercise price of \$12.00/share. The number of warrants and exercise price that we are committed to pay the IR firm for each three-month period, should we choose to keep them under contract, is as follows: Months 1-3: 3,334 warrants at \$12.00. Months 4-6: 4,167 warrants at \$18.00. Months 7-9: 4,167 warrants at \$24.00. Months 10-12: 5,000 warrants at \$30.00.

In January 2017, we executed an amendment to the July 1, 2016 convertible note that was due on January 6, 2017. We received an extension of up to three months on the note's due date. In exchange for the extension, we agreed to issue 1,666 shares of restricted common stock and pay the investor \$10,000 for each 30-day extension. We made a payment of \$34,000 in January 2017 for the first one-month extension and interest on the note from the initial close date through February 6, 2017. On February 28, 2017, the note was paid in full.

The Board of Directors of the Company has approved a 1-for-30 reverse stock split of the Company's common stock immediately prior to the effectiveness of the registration statement of which this prospectus is a part. The reverse stock split became effective on June 5, 2017. All common shares, stock options, and per share information presented in the financial statements have been adjusted to reflect the reverse stock split on a retroactive basis for all periods presented. In lieu of issuing fractional shares, stockholders who otherwise would be entitled to receive fractional shares because they hold a number of shares not evenly divisible by the reverse stock split ratio will automatically be entitled to receive an additional fraction of a share of Common Stock to round up to the next whole share. There was no change in the par value of the Company's common stock. The ratio by which shares of preferred stock are convertible into shares of common stock were adjusted to reflect the effects of the reverse stock split.

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

<u>ASSETS</u>	<u>March 31, 2017</u>	<u>December 31, 2016</u>
CURRENT ASSETS		
Cash and cash equivalents	\$ 121,438	\$ 138,363
Accounts receivable, net of \$28,169 reserve at March 31, 2017 and December 31, 2016	518,727	281,320
Inventories, net of \$20,000 reserve at March 31, 2017 and December 31, 2016	940,383	905,284
Prepaid income taxes	7,405	7,405
Prepaid expenses and other current assets	207,745	258,103
Total current assets	1,795,698	1,590,475
Investment in available-for-sale equity securities	19,796	25,865
Property and equipment, net	22,571	9,413
TOTAL ASSETS	\$ 1,838,065	\$ 1,625,753
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES		
Accounts payable	\$ 672,729	\$ 407,249
Accrued employee compensation	250,039	249,596
Accrued professional fees and other	990,425	956,884
Deferred revenue	145,918	159,654
Revolving note payable, net of unamortized debt discounts of \$839,969 and \$637,030, respectively	1,410,031	612,970
Related party convertible debt, net of debt discount of \$132,522 and \$0, respectively	158,612	-
Convertible debt, net of unamortized debt discounts of \$1,987,382 and \$2,235,839, respectively	5,213,529	4,005,702
Other debt, net of unamortized discounts of \$167,263 and \$380, respectively	683,116	238,157
Warrant derivative liability	3,018,515	1,685,108
Conversion option liability	2,679,404	951,059
Total current liabilities	15,222,318	9,266,379
LONG TERM LIABILITIES		
Related party convertible debt, net of debt discount of \$0 and \$165,611, respectively	-	125,523
Convertible debt, net of debt discount of \$5,575 and \$740,628, respectively	5,425	529,742
Deferred revenue	74,805	87,527
TOTAL LIABILITIES	15,302,548	10,009,171
COMMITMENTS AND CONTINGENCIES (Note 5)		
STOCKHOLDERS' DEFICIT		
Series D Convertible Preferred Stock, \$.01 par value; 850 shares authorized; 300 shares issued and outstanding on March 31, 2017 and December 31, 2016, respectively (Liquidation value of \$300,000)	3	3
Series G Convertible Preferred Stock, \$.01 par value; 240,000 shares authorized; 86,570 shares issued and outstanding on March 31, 2017 and December 31, 2016, respectively	866	866
Series H Convertible Preferred Stock, \$.01 par value; 10,000 shares authorized; 10,000 shares issued and outstanding on March 31, 2017 and December 31, 2016, respectively	100	100
Series H2 Convertible Preferred Stock, \$.01 par value; 21 shares authorized; 21 shares issued and outstanding on March 31, 2017 and December 31, 2016, respectively	-	-
Series J Convertible Preferred Stock, \$.01 par value; 6,250 shares authorized; 3,521 shares issued and outstanding on March 31, 2017 and December 31, 2016, respectively	35	35
Series K Convertible Preferred Stock, \$.01 par value; 15,000 shares authorized; 6,816 shares issued and outstanding on March 31, 2017 and December 31, 2016, respectively	68	68
Common stock, \$.01 par value; 100,000,000 shares authorized; 1,060,328 and 1,033,328 shares issued and outstanding on March 31, 2017 and December 31, 2016, respectively	10,603	10,333
Warrants to acquire common stock	6,628,580	6,325,102
Additional paid-in capital	27,753,967	27,544,265
Accumulated deficit	(47,858,705)	(42,264,190)
Total stockholders' deficit	(13,464,483)	(8,383,418)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$ 1,838,065	\$ 1,625,753

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

	For the Three Months Ended	
	March 31,	
	2017	2016
Revenue:		
Products, services, other	\$ 525,998	\$ 454,350
Grant revenue	25,359	56,128
Total revenue	<u>551,357</u>	<u>510,478</u>
Costs and expenses:		
Cost of products and services	235,997	221,699
Research and development	263,456	335,270
Selling and marketing	213,009	191,236
General and administrative	837,998	808,218
Total operating costs and expenses	<u>1,550,460</u>	<u>1,556,423</u>
Operating loss	(999,103)	(1,045,945)
Other (expense) income:		
Interest expense, net	(1,526,632)	(835,144)
Other expense	(959)	(912)
Impairment loss on investment	(6,069)	-
Change in fair value of derivative liabilities	(3,061,752)	(4,068,390)
Total other (expense) income	<u>(4,595,412)</u>	<u>(4,904,446)</u>
Net loss	<u>(5,594,515)</u>	<u>(5,950,391)</u>
Net loss per common share - basic and diluted	\$ (5.38)	\$ (7.70)
Weighted average common stock shares outstanding – basic and diluted	1,040,769	773,279

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(UNAUDITED)

	For the Three Months Ended	
	March 31,	
	2017	2016
Comprehensive Loss		
Net loss	\$ (5,594,515)	\$ (5,950,391)
Other comprehensive loss		
Unrealized loss on marketable securities	-	(139,698)
Comprehensive loss	\$ (5,594,515)	\$ (6,090,089)

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	For the Three Months Ended	
	March 31,	
	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	\$ (5,594,515)	\$ (5,950,391)
Adjustments to reconcile net loss to net cash used in operating activities:		
Common stock issued for debt extension	10,000	-
Depreciation and amortization	2,450	6,198
Accretion of interest and amortization of debt discount	1,307,889	839,234
Gain on settlement of debt	-	(5,044)
Stock-based compensation expense	74,529	101,462
Warrants issued for services	15,558	105,200
Impairment loss on investment	6,069	-
Change in fair value of derivative liabilities	3,061,752	4,068,390
Changes in operating assets and liabilities:		
Accounts receivable	(237,407)	(280,655)
Inventories	(35,099)	71,822
Prepaid expenses and other assets	50,358	43,303
Accounts payable	265,480	(161,253)
Accrued employee compensation	443	38,110
Deferred revenue and other accrued expenses	(92,917)	(109,834)
Net cash used in operating activities	<u>(1,165,410)</u>	<u>(1,233,458)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property plant and equipment	(15,608)	-
Net cash used in investing activities	<u>(15,608)</u>	<u>-</u>
CASH FLOWS FROM FINANCING ACTIVITIES:		
Net proceeds from related party convertible debt	-	96,667
Net proceeds from revolving note payable	920,000	-
Net proceeds from convertible debt	-	1,025,500
Payments on convertible debt	(300,000)	-
Net proceeds from non-convertible debt	773,000	256,660
Payments on non-convertible debt	(228,907)	(168,765)
Net cash provided by financing activities	<u>1,164,093</u>	<u>1,210,062</u>
NET DECREASE IN CASH	(16,925)	(23,396)
CASH AT BEGINNING OF YEAR	138,363	116,783
CASH AT END OF PERIOD	<u>\$ 121,438</u>	<u>\$ 93,387</u>
SUPPLEMENTAL INFORMATION		
Interest paid in cash	\$ 62,802	\$ 1,154
NON CASH TRANSACTIONS:		
Discount due to warrants issued with debt	287,920	-
Unrealized loss from available-for-sale equity securities	-	139,698
Debt discount from derivative liability	-	1,294,049
Convertible debt held in escrow	-	166,882
Common stock issued with debt	125,443	-
Discount from one-time interest	100,000	-

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS MARCH 31, 2016
(UNAUDITED)

1) Business Overview, Liquidity and Management Plans

Pressure Biosciences, Inc. (“we”, “our”, “the Company”) is focused on solving the challenging problems inherent in biological sample preparation, a crucial laboratory step performed by scientists worldwide working in biological life sciences research. Sample preparation is a term that refers to a wide range of activities that precede most forms of scientific analysis. Sample preparation is often complex, time-consuming, and in our belief, one of the most error-prone steps of scientific research. It is a widely-used laboratory undertaking, the requirements of which drive what we believe is a large and growing worldwide market. We have developed and patented a novel, enabling technology platform that can control the sample preparation process. It is based on harnessing the unique properties of high hydrostatic pressure. This process, called pressure cycling technology, or PCT, uses alternating cycles of hydrostatic pressure between ambient and ultra-high levels (35,000 psi or greater) to safely, conveniently and reproducibly control the actions of molecules in biological samples, such as cells and tissues from human, animal, plant, and microbial sources.

Our pressure cycling technology uses internally developed instrumentation that is capable of cycling pressure between ambient and ultra-high levels - at controlled temperatures and specific time intervals - to rapidly and repeatedly control the interactions of bio-molecules, such as DNA, RNA, proteins, lipids, and small molecules. Our laboratory instrument, the Barocycler®®, and our internally developed consumables product line, including PULSE® (Pressure Used to Lyse Samples for Extraction) Tubes, other processing tubes, and application specific kits (which include consumable products and reagents) together make up our PCT Sample Preparation System, or PCT SPS.

In 2015, together with an investment bank, we formed a subsidiary called Pressure BioSciences Europe (“PBI Europe”) in Poland. We have 49% ownership interest with the investment bank retaining 51%. As of now, PBI Europe does not have any operating activities and we cannot reasonably predict when operations will commence. Therefore, we do not have control of the subsidiary and did not consolidate in our financial statements. PBI Europe did not have any operations in the first quarter of 2017 or in fiscal year 2016.

2) Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the liquidation of liabilities in the normal course of business. However, we have experienced negative cash flows from operations with respect to our pressure cycling technology business since our inception. As of March 31, 2017, we do not have adequate working capital resources to satisfy our current liabilities and as a result, there is substantial doubt regarding our ability to continue as a going concern. We have been successful in raising cash through debt and equity offerings in the past and as described in Note 6, we received \$1,840,750 in gross proceeds from loans in the first quarter of 2017. We have financing efforts in place to continue to raise cash through debt and equity offerings.

Management has developed a plan to continue operations. This plan includes obtaining equity or debt financing. During the three months ended March 31, 2017 we received \$1,840,750 net proceeds, in additional convertible and non-convertible debt. Although we have successfully completed financings and reduced expenses in the past, we cannot assure you that our plans to address these matters in the future will be successful.

We need substantial additional capital to fund normal operations in future periods. In the event that we are unable to obtain financing on acceptable terms, or at all, we will likely be required to cease our operations, pursue a plan to sell our operating assets, or otherwise modify our business strategy, which could materially harm our future business prospects. These financial statements do not include any adjustments that might result from this uncertainty.

3) Interim Financial Reporting

The accompanying unaudited consolidated balance sheet as of December 31, 2016, which was derived from audited financial statements, and the unaudited interim consolidated financial statements of Pressure BioSciences, Inc. have been prepared in accordance with accounting principles generally accepted in the United States of America (“generally accepted accounting principles” or “GAAP”) for interim financial information. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all material adjustments (consisting of only normal recurring adjustments) considered necessary for a fair presentation have been included. Operating results for the three months ended March 31, 2017 are not necessarily indicative of the results that may be expected for the year ending December 31, 2017. For further information, refer to the audited consolidated financial statements and footnotes thereto included in the Company’s Annual Report on Form 10-K (the “Form 10-K”) for the fiscal year ended December 31, 2016 as filed with the Securities and Exchange Commission on March 22, 2017.

4) Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of Pressure BioSciences, Inc., and its wholly-owned subsidiary PBI BioSeq, Inc. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

To prepare our consolidated financial statements in conformity with accounting principles generally accepted in the United States of America, we are required to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. In addition, significant estimates were made in projecting future cash flows to quantify deferred tax assets, the costs associated with fulfilling our warranty obligations for the instruments that we sell, and the estimates employed in our calculation of fair value of stock options awarded and warrant derivative liability. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from the estimates and assumptions used.

Concentrations

Credit Risk

Our financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash, cash equivalents, and trade receivables. We have cash investment policies which, among other things, limit investments to investment-grade securities. We perform ongoing credit evaluations of our customers, and the risk with respect to trade receivables is further mitigated by the fact that many of our customers are government institutions, large pharmaceutical and biotechnology companies, and academic laboratories.

The following table illustrates the level of concentration as a percentage of total revenues during the three months ended March 31, 2017 and 2016.

	For the Three Months Ended March 31,	
	2017	2016
Top Five Customers	61%	46%
Federal Agencies	5%	11%

The following table illustrates the level of concentration as a percentage of net accounts receivable balance as of March 31, 2017 and December 31, 2016:

	March 31, 2017	December, 31, 2016
Top Five Customers	66%	82%
Federal Agencies	1%	1%

Product Supply

CBM Industries (Taunton, MA) has recently become the manufacturer of the Barocycler® 2320EXT. CBM is ISO 13485:2003 and 9001:2008 Certified. CBM provides us with precision manufacturing services that include management support services to meet our specific application and operational requirements. Among the services provided by CBM to us are:

- CNC Machining
- Contract Assembly & Kitting
- Component and Subassembly Design
- Inventory Management
- ISO certification

At this time, we believe that outsourcing the manufacturing of our new Barocycler® 2320EXT to CBM is the most cost-effective method for us to obtain ISO Certified, CE and CSA Marked instruments. CBM's close proximity to our South Easton, MA facility is a significant asset enabling interactions between our Engineering, R&D, and Manufacturing groups and their counterparts at CBM. CBM was instrumental in helping PBI achieve CE Marking on our Barocycler 2320EXT, as announced on February 2, 2017.

Although we currently manufacture and assemble the Barozyme HT48, Barocycler® HUB440, the SHREDDER SG3, and most of our consumables at our South Easton, MA facility, we plan to take advantage of the established relationship with CBM and transfer manufacturing of the entire Barocycler® product line, future instrument, and other products to CBM.

The Barocycler® NEP3229, launched in 2008, and manufactured by the BIT Group, will be phased out over the next several years and replaced by the new state-of-the-art Barocycler® HUB and Barozyme HT product lines.

Investment in Available-For-Sale Equity Securities

As of March 31, 2017, we held 601,500 shares of common stock of Everest Investments Holdings S.A. (“Everest”), a Polish publicly traded company listed on the Warsaw Stock Exchange. We account for this investment in accordance with ASC 320 “Investments — Debt and Equity Securities” as securities available for sale. On March 31, 2017, our consolidated balance sheet reflected the fair value of our investment in Everest to be \$19,796, based on the closing price of Everest shares of \$0.03 per share on that day. The carrying value of our investment in Everest common stock held will change from period to period based on the closing price of the common stock of Everest as of the balance sheet date. The change in market value since the receipt of stock was determined to be other than temporary and \$6,069 was recorded by us as an impairment loss in the first quarter of 2017.

Computation of Loss per Share

Basic loss per share is computed by dividing loss available to common shareholders by the weighted average number of common shares outstanding. Diluted loss per share is computed by dividing loss available to common shareholders by the weighted average number of common shares outstanding plus additional common shares that would have been outstanding if dilutive potential common shares had been issued. For purposes of this calculation, convertible preferred stock, common stock dividends, and warrants and options to acquire common stock, are all considered common stock equivalents in periods in which they have a dilutive effect and are excluded from this calculation in periods in which these are anti-dilutive to our net loss.

The following table illustrates our computation of loss per share for the three months ended March 31, 2017 and 2016:

	For the Three Months Ended	
	March 31,	
	2017	2016
Numerator:		
Net loss	\$ (5,594,515)	\$ (5,950,391)
Denominator for basic and diluted loss per share:		
Weighted average common stock shares outstanding	1,040,768	773,278
Loss per common share - basic and diluted	\$ (5.38)	\$ (7.70)

The following table presents securities that could potentially dilute basic loss per share in the future. For all periods presented, the potentially dilutive securities were not included in the computation of diluted loss per share because these securities would have been anti-dilutive to our net loss. The Series D Convertible Preferred Stock, Series G Convertible Preferred Stock, Series H Convertible Preferred Stock, Series J Convertible Preferred Stock and Series K Convertible Preferred Stock are presented below as if they were converted into common shares according to the conversion terms.

	For the Three Months Ended	
	March 31,	
	2017	2016
Stock options	260,475	182,009
Convertible debt	868,910	840,894
Common stock warrants	846,640	899,947
Convertible preferred stock:		
Series D Convertible Preferred Stock	25,000	25,000
Series G Convertible Preferred Stock	28,857	28,857
Series H Convertible Preferred Stock	33,334	33,334
Series H2 Convertible Preferred Stock	70,000	70,000
Series J Convertible Preferred Stock	117,367	118,200
Series K Convertible Preferred Stock	227,200	380,534
	<u>2,477,783</u>	<u>2,578,775</u>

Accounting for Stock-Based Compensation Expense

We maintain equity compensation plans under which incentive stock options and non-qualified stock options are granted to employees, independent members of our Board of Directors and outside consultants. We recognize stock-based compensation expense over the requisite service period using the Black-Scholes formula to estimate the fair value of the stock options on the date of grant.

Determining Fair Value of Stock Option Grants

Valuation and Amortization Method - The fair value of each option award is estimated on the date of grant using the Black-Scholes pricing model based on certain assumptions. The estimated fair value of employee stock options is amortized to expense using the straight-line method over the vesting period.

Expected Term - The Company uses the simplified calculation of expected life, as the Company does not currently have sufficient historical exercise data on which to base an estimate of expected term. Using this method, the expected term is determined using the average of the vesting period and the contractual life of the stock options granted.

Expected Volatility - Expected volatility is based on the Company's historical stock volatility data over the expected term of the award.

Risk-Free Interest Rate - The Company bases the risk-free interest rate used in the Black-Scholes valuation method on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term.

Forfeitures - The Company records stock-based compensation expense only for those awards that are expected to vest. The Company estimated a forfeiture rate of 5% for awards granted based on historical experience and future expectations of options vesting. The Company used this historical rate as our assumption in calculating future stock-based compensation expense.

The Company recognized stock-based compensation expense of \$74,529 and \$101,462 for the three months ended March 31, 2017 and 2016, respectively. The following table summarizes the effect of this stock-based compensation expense within each of the line items of our costs and expenses within our Consolidated Statements of Operations:

	For the Three Months Ended March 31,	
	2017	2016
Research and development	\$ 15,970	\$ 20,381
Selling and marketing	10,886	12,690
General and administrative	47,673	68,391
Total stock-based compensation expense	\$ 74,529	\$ 101,462

Fair Value of Financial Instruments

Due to their short maturities, the carrying amounts for cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses approximate their fair value. Long-term liabilities are primarily related to convertible debentures and deferred revenue with carrying values that approximate fair value.

Fair Value Measurements

The Company follows the guidance of FASB ASC Topic 820, “*Fair Value Measurements and Disclosures*” (“ASC 820”) as it related to all financial assets and financial liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis.

The Company generally defines fair value 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 (exit price). The Company uses a three-tier fair value hierarchy, which classifies the inputs used in measuring fair values. 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; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring the Company to develop its own assumptions.

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company has determined that its financial assets are classified within Level 1 and its financial liabilities are currently classified within Level 3 in the fair value hierarchy. The development of the unobservable inputs for Level 3 fair value measurements and fair value calculations are the responsibility of the Company's management.

The following tables set forth the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis as of March 31, 2017:

	March 31, 2017	Fair value measurements at March 31, 2017 using:		
		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Available-For-Sale Equity Securities	19,796	19,796	-	-
Total Financial Assets	\$ 19,796	\$ 19,796	\$ -	\$ -

	March 31, 2017	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
		Series D Preferred Stock Purchase Warrants	\$ 89,280	-
Warrants Issued with Convertible Debt	2,929,235	-	-	2,929,235
Conversion Option Derivative Liabilities	2,679,404	-	-	2,679,404
Total Derivatives	\$ 5,697,919	\$ -	\$ -	\$ 5,697,919

The following table provides a summary of the changes in fair value, including net transfers in and/or out, of the derivative financial instruments, measured at fair value on a recurring basis using significant unobservable inputs for the three months ended March 31, 2017:

	December 31, 2016	Issuance fair value	Change in fair value	March 31, 2017
Series D Preferred Stock Purchase Warrants	\$ 23,313	\$ -	\$ 65,967	\$ 89,280
Warrants Issued with Convertible Debt	1,661,795	-	1,267,440	2,929,235
Conversion Option Derivative Liabilities	951,059	-	1,728,345	2,679,404
Total Derivatives	\$ 2,636,167	\$ -	\$ 3,061,752	\$ 5,697,919

The following tables set forth the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis as of December 31, 2016:

	December 31, 2016	Fair value measurements at December 31, 2016 using:		
		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Available-For-Sale Equity Securities	25,865	25,865	-	-
Total Financial Assets	\$ 25,865	\$ 25,865	\$ -	\$ -

	December 31, 2016	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
		Series D Preferred Stock Purchase Warrants	\$ 23,313	-
Warrants Issued with Convertible Debt	1,661,795	-	-	1,661,795
Conversion Option Derivative Liabilities	951,059	-	-	951,059
Total Derivatives	\$ 2,636,167	\$ -	\$ -	\$ 2,636,167

The assumptions for the binomial pricing model are represented in the table below for the warrants issued in the Series D private placement reflected on a per share common stock equivalent basis.

Assumptions	November 10, 2011	Warrants revalued at December 31, 2016	Warrants revalued at March 31, 2017
Expected life (in months)	60.0	5.0	1.2
Expected volatility	104.5%	83.5%	98.3%
Risk-free interest rate	0.875%	0.62%	0.74%
Exercise price	\$ 24.30	\$ 7.50	\$ 7.50
Fair value per warrant	\$ 16.20	\$ 0.60	\$ 2.40

The assumptions for the binomial pricing model are represented in the table below for the warrants issued with the Convertible Debt throughout the period reflected on a per share common stock equivalent basis.

Assumptions	At Issuance Fair value	Warrants revalued at December 31, 2016	Warrants revalued at March 31, 2017
Expected life (in months)	60.0	43.0-51.0	40.0-48.0
Expected volatility	118.3-120.1 %	110.0-116.0 %	106.0-110.0 %
Risk-free interest rate	1.48-1.69 %	1.93%	1.50%
Exercise price	\$ 12.00	\$ 12.00	\$ 12.00
Fair value per warrant	\$ 5.70-\$6.30	\$ 3.60-4.20	\$ 6.30-6.90

The assumptions for the binomial pricing model are represented in the table below for the conversion options reflected on a per share common stock equivalent basis.

Assumptions	At Issuance fair value	At Settlement fair value	Conversion options revalued at December 31, 2016	Conversion options revalued at March 31, 2017
Expected life (in months)	6.0-24.0	0-18.0	6.0-15.0	4.0-12.0
Expected volatility	104.2-153.8%	86.9%-142.2%	84.4-94.8%	90.2-109.3%
Risk-free interest rate	0.05-0.99%	0.01-0.72%	0.62-0.85%	0.91-1.03%
Exercise price	\$ 3.00-\$10.50	\$ 3.00-\$7.50	\$ 8.40	\$ 8.40
Fair value per conversion option	\$ 2.70-\$8.40	\$ 2.10-\$7.80	\$ 0.90-\$1.80	\$ 3.00-\$3.90

5) Commitments and Contingencies

Operating Leases

Our corporate offices are currently located at 14 Norfolk Avenue, South Easton, Massachusetts 02375. We are currently paying \$4,800 per month, on a lease extension, signed on December 29, 2016, that expires December 31, 2017, for our corporate office. We expanded our space to include the first floor starting May 1, 2017 with an increase in monthly rent of \$2,150.

On November 1, 2014 we signed a lease for lab space in Medford, MA. The lease expires December 30, 2017 and requires monthly payments of \$5,385 subject to annual cost of living increases.

Rental costs are expensed as incurred. During the three months ended March 31, 2017 and 2016 we incurred \$30,896 and \$33,877 in rent expense, respectively for the use of our corporate office and research and development facilities.

Government Grants

We have received a \$1.05 million NIH SBIR Phase II Grant. Under the grant, the NIH has committed to pay the Company to develop a high-throughput, high pressure-based DNA Shearing System for Next Generation Sequencing and other genomic applications.

6) Convertible Debt and Other Debt

We entered into Subscription Agreements (the "Subscription Agreement") with various individuals (each, a "Purchaser") between July 23, 2015 and March 31, 2016, pursuant to which the Company sold Senior Secured Convertible Debentures (the "Debentures") and warrants to purchase shares of common stock equal to 50% of the number of shares issuable pursuant to the subscription amount (the "Warrants") for an aggregate purchase price of \$6,329,549 (the "Purchase Price").

The Company issued a principal aggregate amount of \$6,962,504 in Debentures which includes a 10% original issue discount on the Purchase Price. The Debenture does not accrue any additional interest during the first year it is outstanding but accrues interest at a rate equal to 10% per annum for the second year it is outstanding. The Debenture has a maturity date of two years from issuance. The Debenture is convertible any time after its issuance date. The Purchaser has the right to convert the Debenture into shares of the Company's common stock at a fixed conversion price equal to \$8.40 per share, subject to applicable adjustments. In the second year that the Debenture is outstanding, any interest accrued shall be payable quarterly in either cash or common stock, at the Company's discretion.

At any time after the Issuance Date, the Company has the option, subject to certain conditions, to redeem some or all of the then outstanding principal amount of the Debenture for cash in an amount equal to the sum of (i) 120% of the then outstanding principal amount of the Debenture, (ii) accrued but unpaid interest and (iii) any liquidated damages and other amounts due in respect of the Debenture.

Warrants

The Company issued warrants exercisable into a total of 376,757 shares of our common stock. The Warrants issued in this transaction are immediately exercisable at an exercise price of \$12.00 per share, subject to applicable adjustments including full ratchet anti-dilution in the event that we issue any securities at a price lower than the exercise price then in effect. The Warrants have an expiration period of five years from the original issue date. The Warrants are subject to adjustment for stock splits, stock dividends or recapitalizations and also include anti-dilution price protection for subsequent equity sales below the exercise price.

Subject to the terms and conditions of the Warrants, at any time commencing six months from the Final Closing, the Company has the right to call the Warrants for cancellation if the volume weighted average price of its Common Stock on the OTCQB (or other primary trading market or exchange on which the Common Stock is then traded) equals or exceeds three times the per share exercise price of the Warrants for 15 out of 20 consecutive trading days.

Security Agreement

In connection with the Subscription Agreement and Debenture, the Company entered into Security Agreements with the Purchasers whereby the Company agreed to grant to Purchasers an unconditional and continuing, first priority security interest in all of the assets and property of the Company to secure the prompt payment, performance and discharge in full of all of Company's obligations under the Debentures, Warrants and the other Transaction Documents.

The Company determined that the conversion feature of the Debentures met the definition of a liability in accordance with ASC 815-40 and therefore bifurcated the conversion feature on each debt agreement and accounted for it as a derivative liability. The fair value of the conversion feature was accounted for as a note discount and are amortized to interest expense over the life of the loan. The fair value of the conversion feature was reflected in the conversion option liability line in the consolidated balance sheets.

The proceeds from these convertible debts were allocated between the host debt instrument and the convertible option based on the residual method. The estimated fair value of the convertible option was determined using a binomial formula, resulting in allocations to the convertible option and accounted for as a liability in the Company's consolidated balance sheet. In accordance with the provisions of ASC 815-40, the gross proceeds are offset by debt discounts, which are amortized to interest expense over the expected life of the debt.

ASC 470-20 states that the proceeds from the issuance of debt with detachable stock warrants should be allocated between the debt and warrants on the basis of their relative fair market values. The debt discount will be amortized to interest expense over the two year term of these loans. We amortized \$5,616,009 of the debt discount to interest expense through the first quarter of 2017. The warrants issued in connection with the convertible debentures are classified as warrant derivative liabilities because the warrants are entitled to certain rights in subsequent financings and the warrants contain "down-round protection" and therefore, do not meet the scope exception for treatment as a derivative under ASC 815, Derivatives and Hedging, ("ASC 815"). Since "down-round protection" is not an input into the calculation of the fair value of the warrants, the warrants cannot be considered indexed to the Company's own stock which is a requirement for the scope exception as outlined under ASC 815. The estimated fair value of the warrants was determined using the binomial model, resulting in an allocation of \$2,847,624 to the total warrants out of the gross proceeds of \$6,329,549. The fair value will be affected by changes in inputs to that model including our stock price, expected stock price volatility, the contractual term, and the risk-free interest rate. We will continue to classify the fair value of the warrants as a liability until the warrants are exercised, expire or are amended in a way that would no longer require these warrants to be classified as a liability, whichever comes first.

The specific terms of the convertible debts and outstanding balances as of March 31, 2017 are listed in the table below.

Inception Date	Term	Loan Amount	Outstanding Balance	Original Issue Discount	Interest Rate	Deferred Finance Fees	Discount related to fair value of conversion feature and warrants/shares
July 22, 2015	24 months	\$ 2,180,000	\$ 2,180,000	\$ 218,000 ¹	10% ²	\$ 388,532	\$ 2,163,074
September 25, 2015	24 months	1,100,000	1,100,000	110,000 ¹	10% ²	185,956	1,022,052
October 2, 2015	24 months	150,000	150,000	15,000 ¹	10% ²	26,345	140,832
October 6, 2015	24 months	30,000	30,000	3,000 ¹	10% ²	5,168	26,721
October 14, 2015	24 months	50,000	50,000	5,000 ¹	10% ²	8,954	49,377
November 2, 2015	24 months	250,000	250,000	25,000 ¹	10% ²	43,079	222,723
November 10, 2015	24 months	50,000	50,000	5,000 ¹	10% ²	8,790	46,984
November 12, 2015	24 months	215,000	215,000	21,500 ¹	10% ²	38,518	212,399
November 20, 2015	24 months	200,000	200,000	20,000 ¹	10% ²	37,185	200,000
December 4, 2015	24 months	170,000	170,000	17,000 ¹	10% ²	37,352	170,000
December 11, 2015	24 months	360,000	360,000	36,000 ¹	10% ²	75,449	360,000
December 18, 2015	24 months	55,000	55,000	5,500 ¹	10% ²	11,714	55,000
December 31, 2015	24 months	100,000	100,000	10,000 ¹	10% ²	20,634	100,000
January 11, 2016	24 months	100,000	100,000	10,000 ¹	10% ²	24,966	80,034
January 20, 2016	24 months	50,000	50,000	5,000 ¹	10% ²	9,812	40,188
January 29, 2016	24 months	300,000	300,000	30,000 ¹	10% ²	60,887	239,113
February 26, 2016	24 months	200,000	200,000	20,000 ¹	10% ²	43,952	156,048
March 10, 2016	24 months	125,000	125,000	12,500 ¹	10% ²	18,260	106,740
March 18, 2016	24 months	360,000	360,000	36,000 ¹	10% ²	94,992	265,008
March 24, 2016	24 months	106,667	106,667	10,667 ¹	10% ²	15,427	91,240
March 31, 2016	24 months	177,882	177,882	17,788 ¹	10% ²	2,436	175,446
June 15, 2016	6 months	40,000	-	-	12%	-	3,680
June 17, 2016	6 months	40,000	-	-	12%	-	3,899
June 22, 2016	6 months	35,000	-	-	12%	-	3,373
July 6, 2016	6 months	85,000	-	-	12%	-	15,048
July 29, 2016	6 months	100,000	-	-	12%	-	25,518
September 15, 2016	8 months	500,000	500,000	85,541	9%	-	65,972
		\$ 7,129,549	\$ 6,829,549	\$ 718,496		\$ 1,158,408	\$ 6,040,469

1 The original issue discount is reflected in the first year.

2 The annual interest starts accruing in the second year.

The closings above included a total of approximately \$291,000 convertible debentures purchased by related parties who were members of the Company's Board of Directors and management and their family members.

At any time after six months from the Inception Date, the Company has the right to prepay the above Debentures in cash for 120% of the principal amount outstanding and any accrued interest.

In January 2017, we executed an amendment to the July 1, 2016 convertible note that was due on January 6, 2017. We received an extension of up to three months on the note's due date. In exchange for the extension, we agreed to issue 1,666 shares of restricted common stock and pay the investor \$10,000 for each 30-day extension. The shares issued for the extension were valued at \$10,000 and recorded as interest expense. We made a payment of \$34,000 in January 2017 for the first one-month extension and interest on the note from the initial close date through February 6, 2017. The Investor had the right, at any time, to convert all or part of the outstanding and unpaid principal sum and accrued interest into shares of common stock at the conversion price of \$13.50. On February 28, 2017, the note was paid in full.

Revolving Note Payable

On October 28, 2016, an accredited investor (the “*Investor*”) purchased from us a promissory note in the aggregate principal amount of up to \$2,000,000 (the “*Revolving Note*”) due and payable on the earlier of October 28, 2017 (the “*Maturity Date*”) or on the seventh business day after the closing of a Qualified Offering (as defined in the Revolving Note). The Investor is obligated to provide us with advances of \$250,000 under the Revolving Note, but the Investor shall not be required to advance more than \$250,000 in any individual fifteen (15) day period and no more than \$500,000 in the thirty (30) day period immediately following the date of the initial advance. We received \$2,250,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 187,500 shares of our Common Stock at an exercise price per share equal to \$12.00 per share. The terms of the Warrants are identical except for the exercise date, issue date, and termination date which are based on the advance date.

In the event that a Qualified Offering occurs on or prior to the six (6) month anniversary of October 28, 2016, within seven (7) Business Days of the closing of the Qualified Offering, the Company shall pay a cash fee equal to five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering or, at the option of the Company, issue to the Holder a number of restricted shares of the Company’s common stock equal to (x) five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering divided by (y) the purchase price provided by the documents governing the Qualified Offering. A Qualified Offering means the completion of a public offering of the Company’s securities pursuant to which the Company receives aggregate gross proceeds of at least Seven Million United States Dollars (US\$7,000,000) in consideration of the purchase of its securities and resulting in, pursuant to the effectiveness of the registration statement for such offering, the Company’s common stock being traded on the NASDAQ Capital Market, NASDAQ Global Select Market or the New York Stock Exchange.

In the event that a Qualified Offering occurs following the six (6) month anniversary of October 28, 2016, but prior to the Maturity Date, within seven(7) Business Days of the closing of the Qualified Offering, the Company shall pay a cash fee equal to five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering or, at the option of the Company, issue to the Holder a number of restricted shares of the Company’s common stock equal to (x) five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering divided by (y) the purchase price provided by the documents governing the Qualified Offering.

Interest on the principal balance of the Revolving Note shall be paid in full on the Maturity Date, unless otherwise paid prior to the Maturity Date. Interest shall be assessed as follows: (i) a one-time interest of 10% on all principal amounts advanced prior to April 28, 2017; (ii) the foregoing and 4% on any amount remaining outstanding if the principal amount is repaid between April 28, 2017 and July 28, 2017; or (iii) both of the foregoing and 4% on any amount remaining outstanding if the principal amount is repaid between July 28, 2017 and October 28, 2017.

Broker fees amounting to \$196,500, the one-time interest of \$225,000 and the fair value of the 187,500 warrants issued to the Investor amounting to \$767,650 were recorded as debt discounts and amortized over the term of the revolving note. The unamortized debt discounts as of March 31, 2017 related to the Revolving Note amounted to \$839,969.

The following table provides a summary of the changes in convertible debt and revolving note payable, net of unamortized discount, during 2017:

	<u>2017</u>
Balance at January 1,	\$ 5,273,937
Issuance of convertible debt, face value	1,000,000
Deferred financing cost	(80,000)
Debt discount related to one-time interest charge	(100,000)
Debt discount from shares and warrants issued with the notes	(287,920)
Payments	(300,000)
Accretion of interest and amortization of debt discount to interest expense through March 31,	1,281,580
Balance at March 31,	<u>6,787,597</u>
Less: current portion	<u>6,782,172</u>
Convertible debt, long-term portion	<u>\$ 5,425</u>

Other Notes

On January 6, 2016 we signed a Merchant Agreement with a lender. Under the agreement we received \$250,000 in exchange for rights to all customer receipts until the lender is paid \$322,500, which is collected at the rate of \$1,280 per business day. The payments were secured by second position rights to all customer receipts until the loan has been paid in full. \$138,840 of the proceeds were used to pay off the outstanding balance of a previous loan from another lender. The Company recognized a gain on the settlement of the previous loan of \$5,044 which was credited to interest expense. The Company paid \$2,500 in fees in connection with this loan. We received an additional \$93,161 in June 2016 under the existing Merchant Agreement. The note was still outstanding as of March 31, 2017 with a balance of \$78,322.

On February 8, 2016 we signed a Merchant Agreement with a lender. Under the agreement we received \$100,000 in exchange for third position rights to all customer receipts until the lender is paid \$129,900, which is collected at the rate of \$927 per business day. The Company paid \$2,000 in fees in connection with this loan. We received an additional \$125,000 in June 2016 under the existing Merchant Agreement of which \$48,420 was used to pay off the prior loan. The lender provided an additional \$70,000 on August 16, 2016. As of March 31, 2017, the outstanding balance on this note was zero.

On August 26, 2016 we signed a Merchant Agreement with a lender. Under the agreement we received \$122,465 net proceeds in exchange for rights to all customer receipts which is collected at the rate of \$1,386 per business day. As of March 31, 2017, the outstanding balance on this note was zero.

On February 6, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$125,000. The Company paid \$1,250 in fees in connection with this loan. Under the agreement, \$16,180 was used to pay off the prior loan. The loan was still outstanding as of March 31, 2017 with a balance of \$72,594.

On February 15, 2017, we received six-month, non-convertible loans in the aggregate of \$220,000 from two accredited investors. We agreed to issue an aggregate of 11,333 shares of restricted common stock. The loans earn no interest but carry a 10% original issue fee. We recorded the fair value of the shares amounting to \$43,616 as debt discounts that will be amortized to interest expense during the term of the loans. The loans still remain outstanding as of March 31, 2017 with an aggregate balance of \$220,000. We amortized \$15,551 of debt discounts in the three months ended March 31, 2017. The unamortized debt discounts as of March 31, 2017 were \$48,065.

On March 2, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$75,750. The Company paid no fees in connection with this loan. A loan balance of \$59,464 remains outstanding as of March 31, 2017.

On March 14, 2017, we received an eight-month, non-convertible loan of \$250,000 from a privately-held investment firm. The loan earns an annual interest rate of 10% and includes a 10% original issue discount. We also agreed to issue the investor 8,333 shares of restricted common stock. We recorded the fair value of the shares amounting to \$51,748 as a debt discount that will be amortized to interest expense during the term of the loan. The loan still remains outstanding as of March 31, 2017 with a balance of \$250,000. We amortized \$7,248 of the debt discount in the three months ended March 31, 2017. The unamortized debt discount as of March 31, 2017 was \$69,500.

On March 21, 2017, we received an eight-month, non-convertible loan of \$170,000 from an accredited investor. The loan earns an annual interest rate of 10% and includes a 10% original issue discount. We also agreed to issue the investor 5,667 shares of restricted common stock. We recorded the fair value of the shares amounting to \$35,079 as a debt discount that will be amortized to interest expense during the term of the loan. The loan still remains outstanding as of March 31, 2017 with a balance of \$170,000. We amortized \$2,893 of the debt discount in the three months ended March 31, 2017. The unamortized debt discount as of March 31, 2017 was \$49,186.

7) Stockholders' Deficit

Preferred Stock

We are authorized to issue 1,000,000 shares of preferred stock with a par value of \$0.01. Of the 1,000,000 shares of preferred stock:

- 1) 20,000 shares have been designated as Series A Junior Participating Preferred Stock (“*Junior A*”)
- 2) 313,960 shares have been designated as Series A Convertible Preferred Stock (“*Series A*”)
- 3) 279,256 shares have been designated as Series B Convertible Preferred Stock (“*Series B*”)
- 4) 88,098 shares have been designated as Series C Convertible Preferred Stock (“*Series C*”)
- 5) 850 shares have been designated as Series D Convertible Preferred Stock (“*Series D*”)
- 6) 500 shares have been designated as Series E Convertible Preferred Stock (“*Series E*”)
- 7) 240,000 shares have been designated as Series G Convertible Preferred Stock (“*Series G*”)
- 8) 10,000 shares have been designated as Series H Convertible Preferred Stock (“*Series H*”)
- 9) 21 shares have been designated as Series H2 Convertible Preferred Stock (“*Series H2*”)
- 10) 6,250 shares have been designated as Series J Convertible Preferred Stock (“*Series J*”)
- 11) 15,000 shares have been designated as Series K Convertible Preferred Stock (“*Series K*”)

As of March 31, 2017, there were no shares of Junior A, and Series A, B, C and E issued and outstanding. See our Annual Report on Form 10-K for the year ended December 31, 2016 for the pertinent disclosures of preferred stock.

Stock Options and Warrants

Our stockholders approved our amended 2005 Equity Incentive Plan (the “Plan”) pursuant to which an aggregate of 1,800,000 shares of our common stock were reserved for issuance upon exercise of stock options or other equity awards made under the Plan. Under the Plan, we may award stock options, shares of common stock, and other equity interests in the Company to employees, officers, directors, consultants, and advisors, and to any other persons the Board of Directors deems appropriate. As of March 31, 2017, options to acquire 36,125 shares were outstanding under the Plan.

On December 12, 2013 at the Company’s special meeting the shareholders approved the 2013 Equity Incentive Plan (the “2013 Plan”) pursuant to which 3,000,000 shares of our common stock were reserved for issuance upon exercise of stock options or other equity awards. Under the 2013 Plan, we may award stock options, shares of common stock, and other equity interests in the Company to employees, officers, directors, consultants, and advisors, and to any other persons the Board of Directors deems appropriate. As of March 31, 2017, options to acquire 90,250 shares were outstanding under the Plan with 2,909,750 shares available for future grants under the 2013 Plan.

On November 29, 2015 the Company’s Board of Directors adopted the 2015 Nonqualified Stock Option Plan (the “2015 Plan”) pursuant to which 5,000,000 shares of our common stock were reserved for issuance upon exercise of non-qualified stock options. Under the 2015 Plan, we may award non-qualified stock options in the Company to employees, officers, directors, consultants, and advisors, and to any other persons the Board of Directors deems appropriate. As of March 31, 2017, non-qualified options to acquire 134,100 shares were outstanding under the Plan with 4,865,900 shares available for future grants under the 2015 Plan.

All of the outstanding non-qualified options had an exercise price that was at or above the Company’s common stock share price at time of issuance.

The following tables summarize information concerning options and warrants outstanding and exercisable:

	<u>Stock Options</u>		<u>Warrants</u>		<u>Total</u>	
	<u>Weighted Average</u>		<u>Weighted Average</u>			
	<u>Shares</u>	<u>Price per share</u>	<u>Shares</u>	<u>Price per share</u>	<u>Shares</u>	<u>Exercisable</u>
Balance outstanding, 12/31/16	175,642	\$ 12.60	881,990	\$ 12.00	1,057,632	991,032
Granted	87,167	8.40	86,667	12.00	173,834	
Exercised	—	—	—	—	—	
Expired	(2,334)	30.00	(122,017)	10.50	(124,351)	
Forfeited	—	—	—	—	—	
Balance outstanding, 3/31/2017	260,475	\$ 11.10	846,640	\$ 12.30	1,107,115	974,835

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Number of Options	Weighted Average		Number of Options	Weighted Average	
		Remaining Contractual Life (Years)	Exercise Price		Remaining Contractual Life (Years)	Exercise Price
\$7.50 - \$11.70	141,350	9.0	\$ 8.70	47,901	7.5	\$ 9.00
12.00 - 14.70	92,866	8.5	12.00	54,037	8.3	12.00
15.00 - 17.70	7,542	5.4	15.00	7,542	5.4	15.00
18.00 - 20.70	12,850	2.9	18.00	12,850	2.9	18.00
30.00 - 37.50	5,867	3.0	30.00	5,867	3.0	30.00
\$7.50 - \$37.50	260,475	8.3	\$ 11.10	128,197	7.0	\$ 12.60

As of March 31, 2017, the total estimated fair value of unvested stock options to be amortized over their remaining vesting period was \$730,174. The non-cash, stock-based compensation expense associated with the vesting of these options is expected to be \$309,911 in 2017, \$286,355 in 2018, \$110,522 in 2019 and \$23,386 in 2020. The fair value of options granted in 2017 was \$487,914.

The aggregate intrinsic value associated with the options outstanding and exercisable as of March 31, 2017 was \$28,740. The aggregate intrinsic value associated with the warrants outstanding and exercisable as of March 31, 2017 was \$79,092.

Common Stock Issuances

On various dates from January to March 2017 the Company issued 27,000 shares of restricted common stock to investors as compensation for loans provided to us.

8) Subsequent Events

On April 3, 2017, we signed a six-month agreement with an investor relations firm. The agreement includes a cash payment of \$10,000 plus a convertible 8-month note for \$50,000 with the following significant terms: (i) convertible at \$12.00/share, (ii) bears 10% annual interest, (iii) a 20% pre-payment penalty if the Company wants to pre-pay the Note, and (iv) a default rate of 18%. We terminated the agreement on June 7, 2017 and canceled the 8-month convertible note.

On April 19, 2017, we received a 7-month non-convertible loan of \$250,000 from a privately-held investment firm. The loan earns an annual interest rate of 10% and includes a 10% original issue discount. We agreed to issue 833 shares at closing. Until the loan is repaid, we will, over the next one hundred eighty (180) days, issue 2,500 shares to the Investor every sixty (60) days for a total issuance of 8,333 shares. The loan remains outstanding and we have issued 3,333 shares including the closing shares since inception of the loan.

On May 3, 2017, we received \$250,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 20,834 shares of our Common Stock at an exercise price per share equal to \$12.00 per share. The Revolving Note was amended on May 2, 2017 to increase the aggregate principal amount to \$3,000,000, to issue 16,666 shares of our Common Stock to the Investor, to decrease the exercise price per share of the warrants to the lower of (i) \$12.00 or (ii) the per share purchase price of the shares of our Common Stock sold in the Qualified Offering, and to change the references in the Revolving Note from “the six (6) month anniversary of October 28, 2016” to “July 25, 2017.”

On May 10, 2017, we received \$149,164 from the exercise of 19,889 stock purchase warrants from the Series D registered direct offering on November 10, 2011. In consideration for the warrant exercises, we issued to the investors warrants to purchase 39,778 shares of our Common Stock at an exercise price per share equal to \$8.40 per share. The warrants expire on the third year anniversary date.

On May 10, 2017, an investor converted 75 shares of Series D Preferred Stock into 6,250 shares of Common Stock. In consideration for the preferred stock conversion, we issued 3,750 shares of restricted Common Stock.

On May 19, 2017, we received a 45-day non-convertible loan of \$630,000 from a private investor. The loan provides guaranteed interest of \$63,000 and has an origination fee of \$32,000. We paid a broker \$31,500 in connection with this loan. We used these proceeds to pay off in full our September 2016 loan of \$589,189.

On May 24, 2017, we received \$125,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 10,417 shares of our Common Stock at an exercise price per share equal to \$12.00 per share.

On June 5, 2017, we effected a 1-for-30 reverse stock split of our common stock. All common shares, stock options, and per share information presented in the financial statements have been adjusted to reflect the reverse stock split on a retroactive basis for all periods presented. In lieu of issuing fractional shares, stockholders who otherwise would be entitled to receive fractional shares because they hold a number of shares not evenly divisible by the reverse stock split ratio will automatically be entitled to receive an additional fraction of a share of Common Stock to round up to the next whole share. There was no change in the par value of the Company’s common stock. The ratio by which shares of preferred stock are convertible into shares of common stock were adjusted to reflect the effects of the reverse stock split.

On June 6, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$250,000. The Company paid \$6,250 in fees in connection with this loan. Under the agreement, \$119,021 was used to pay off three prior loans.

On June 12, 2017, we received \$125,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 10,417 shares of our Common Stock at an exercise price per share equal to \$12.00 per share.

Conversion of Series D Preferred Stock

On June 8, 2017, the Company entered into a letter agreement with a private investor (the “BG Preferred Stock Letter Agreement”), whereby the private investor agreed to convert 75 shares of Series D Preferred Stock (the “BG Preferred Stock”) of the Company owned by him into common stock of the Company. Pursuant to the BG Preferred Stock Letter Agreement, the BG Preferred Stock will automatically convert upon consummation of this offering into 6,250 restricted shares of the Company’s common stock and warrants to purchase 9,945 shares of the Company’s common stock with an exercise price of \$8.40 substantially in the form of the warrants included in this offering except such warrants will be restricted securities and will not publicly trade on NASDAQ. As an inducement to enter into the BG Preferred Stock Letter Agreement, the private investor will receive 3,750 restricted shares of common stock upon the closing of the offering. The private investor has entered into a lock-up agreement prohibiting the sale or other transfer of all securities of the Company owned by him for a period of 90 days from the closing of the offering.

Conversion of Convertible Debentures

On June 16, 2017, the Company entered into letter agreements (together the “Debenture Holder Letter Agreements”), as amended, with 34 investors (each a “Debenture Holder” and together the “Debenture Holders”) holding convertible debentures (collectively the “Debentures”) and warrants to purchase common stock (the “Debenture Warrants”) whereby the Debenture Holders agreed to convert all monies due them under the Debentures into restricted shares of common stock (the “Debenture Conversion Shares”), all contingent upon the completion of this offering. As of March 31, 2017, the Debenture Holders were due the aggregate sum of \$1,587,706, including principal and interest. This sum, along with the additional interest due from April 1 through the date of the consummation of the offering, is referred to herein as the “Debenture Obligation”. Pursuant to the Debenture Holder Letter Agreements, the Debenture Obligation will automatically convert upon consummation of this offering into the Debenture Conversion Shares at a price equal to the lower of \$8.40 or the price per share paid by investors in this offering. The Debenture Holders will be issued amended Debenture Warrants such that the exercise price will be the same as the exercise price of the warrants being included in this offering and the Debenture Warrants will no longer have a “Subsequent Equity Sales” provision that lowers the exercise price of the Debenture Warrants upon any future dilutive issuance of shares. As a result of the foregoing, the Company will issue at least 352,824 Debenture Conversion Shares for principal and interest through March 31, 2017 upon the consummation of this Offering in consideration of the conversion of their Debenture Obligation assuming a conversion price of \$4.50, which is the mid-point of the estimated offering price range on the cover of this prospectus. Each person entering into the Debenture Holder Letter Agreements have entered into lock-up agreements prohibiting the sale or other transfer of any securities of the Company owned by such persons for a period of 3 months except for 5,262 shares of unrestricted common stock the Debenture Holders own as of the date of their letter agreements due to issuances by the Company of interest earned on the Debenture in the form of “payment in kind” shares of common stock.

On June 16, 2017, the Company entered into letter agreements (together the “Debenture and Fall 2016 Holder Letter Agreements”), with two (2) investors (each a “Debenture and Fall 2016 Holder” and collectively the “Debenture and Fall 2016 Holders”). The Debenture and Fall 2016 Holders invested in both the Company’s offering of the Debentures and Debenture Warrants as well as the Company’s offering of restricted common stock and common stock purchase warrants (the “Fall 2016 Warrants”). Pursuant to the Debenture and Fall 2016 Holder Letter Agreements, the Debenture and Fall 2016 Holders agreed to convert all monies due them under the Debentures into restricted shares of common stock (the “Debenture and Fall 2016 Conversion Shares”) contingent upon the completion of this offering. As of March 31, 2017, the Debenture and Fall 2016 Holders were due the aggregate sum of \$779,930, including principal and interest. This sum, along with the additional interest due from April 1 through the date of the consummation of the offering, is referred to herein as the “Debenture and Fall 2016 Obligation”. As an inducement to enter into the Debenture and Fall 2016 Holder Letter Agreements, the Debenture and Fall 2016 Holders will receive an aggregate of 17,334 shares of the Company’s common stock. Pursuant to the Debenture and Fall 2016 Holder Letter Agreements, the Debenture and Fall 2016 Obligation will automatically convert upon consummation of this offering into the Debenture and Fall 2016 Conversion Shares at a price equal to the lower of \$8.40 or the price per share paid by investors in this offering and their Debenture Warrants will be amended to reflect an exercise price equal to the lower of \$12.00 or the exercise price per share of the warrants sold in this offering. In addition, the Debenture Warrants will no longer have a “Subsequent Equity Sales” provision that lowers the exercise price of the Debenture Warrants upon any future dilutive issuance of shares. Additionally, the Fall 2016 Warrants shall be amended to reflect an exercise price equal to the lower of \$12.00 or the exercise price per share of the warrants sold in this offering. As a result of the foregoing, the Company will issue at least 173,318 Debenture and Fall 2016 Conversion Shares for principal and interest through March 31, 2017 to the Debenture and Fall 2016 Holders upon the consummation of this Offering in consideration of the conversion of their Debenture Obligation assuming a conversion price of \$4.50, which is the mid-point of the estimated offering price range on the cover of this prospectus. Each person entering into the Debenture and Fall 2016 Holder Letter Agreements have entered into lock-up agreements prohibiting the sale or other transfer of any securities of the Company owned by such persons for a period of 3 months except for 2,287 shares of unrestricted common stock the Debenture and Fall 2016 Holders own as of the date of their letter agreements due to issuances by the Company of interest earned on the Debenture in the form of “payment in kind” shares of common stock.

On June 16, 2017, the Company entered into a letter agreement (the “Accredited Investor Letter Agreement” together with the Debenture Holder Letter Agreement and Debenture and Fall 2016 Letter Agreement, the “Letter Agreements”) with an accredited investor (the “Accredited Investor”). The Accredited Investor currently holds Debentures pursuant to which he is owed, as of March 31, 2017, principal and interest equal to \$4,741,609. This sum, along with the additional interest due from April 1 through the date of the consummation of the offering, is referred to herein as the “Accredited Investor Debenture Obligation”. The Accredited Investor also currently holds (i) Debenture Warrants, (ii) Fall 2016 Warrants, (iii) a promissory note issued in his favor in October 2016 in the principal amount of \$3,000,000 (the “Line of Credit Obligation”) and warrants to purchase common stock in connection therewith (the “Line of Credit Warrants”), and (iv) shares of the Company’s Series D, Series G, Series J, Series K, Series H1, and Series H2 Preferred Stock (collectively, the “Preferred Stock”). Pursuant to the letter agreement, the Accredited Investor agreed to convert all shares of Preferred Stock, into 493,557 shares of the Company’s common stock. The Accredited Investor Debenture Obligation will automatically convert upon consummation of this offering into 1,053,691 shares at a price equal to the lower of \$8.40 or the price per share paid by investors in this offering. The Line of Credit Obligation will automatically convert upon consummation of this offering into shares at a conversion price equal to 80% of the price per share of common stock paid by investors in this offering along with a new warrant substantially similar to the warrants being included in this offering, except such new warrants will have a cashless exercise provision, and will have an exercise price

equal to 80% of the exercise price per share of the warrants issued to the investors in this offering, will be restricted securities, and will not trade on NASDAQ. As inducement to enter into the Accredited Investor Letter Agreement, the Accredited Investor's Debenture Warrants, the Fall 2016 Warrants, and the Line of Credit Warrants shall be amended such that the exercise price of such warrant shall be the lower of \$12.00 and the exercise price of the warrants being sold to investors in this offering. In addition, the Debenture Warrants will no longer have a "Subsequent Equity Sales" provision that lowers the exercise price of the Debenture Warrants upon any future dilutive issuance of shares. The Accredited Investor will also be issued new warrants to purchase 29,833 shares of common stock at an exercise price of \$8.40 substantially in the form of the warrants being sold to investors in this offering, except such warrants will be restricted securities and will not publicly trade on NASDAQ. The Accredited Investor has entered into a lock-up agreement prohibiting the sale or other transfer of any securities of the Company owned by such person, with the exception of 31,070 shares of restricted common stock previously issued, for a period of 6 months.

As an added inducement for investors to enter into the Letter Agreements, the Company agreed that until the earlier of (i) twelve (12) months after the closing of this offering in the event that the Company raises at least \$11,000,000 by virtue of the sale of securities hereunder or (ii) ten (10) months after the closing of this offering in the event that the Company raises less than \$11,000,000 by virtue of the sale of the Company's securities hereunder; the Company shall not issue or sell common stock, or grant any option to purchase, or sell or grant any right to reprice, or otherwise dispose of or issue (or announce any offer, sale, grant or any option to purchase or other disposition) any common stock (including pursuant to the terms of any outstanding securities issued prior to the date hereof (including, but not limited to, warrants, convertible notes, or other agreements) or any security entitling the holder thereof to acquire common stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive common stock (a "Common Stock Equivalent") at an effective price per share less than price per share of common stock sold in this offering without the prior written consent of the Debenture Holders who hold at least 80% of the shares represented by the as-converted Debentures as of May 30, 2017, which such consent shall not be unreasonably withheld; provided however, that such issuances will not apply to Excepted Issuances. Excepted Issuance means (i) the Company's issuance of common stock in full or partial consideration in connection with a strategic merger, acquisition, consolidation or purchase of substantially all of the securities or assets of a corporation or other entity, so long as such issuances are not for the purpose of raising capital, (ii) the Company's issuances of common stock or the issuances or grants of options to purchase common stock to employees, directors, and consultants, pursuant to the Company's stock option plan at or above fair market value, or (iii) securities upon the exercise or exchange of or conversion of any securities exercisable or exchangeable for or convertible into shares of common stock issued and outstanding as of June 15, 2017.

On June 21, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$150,000. The Company paid \$1,498 in fees in connection with this loan.

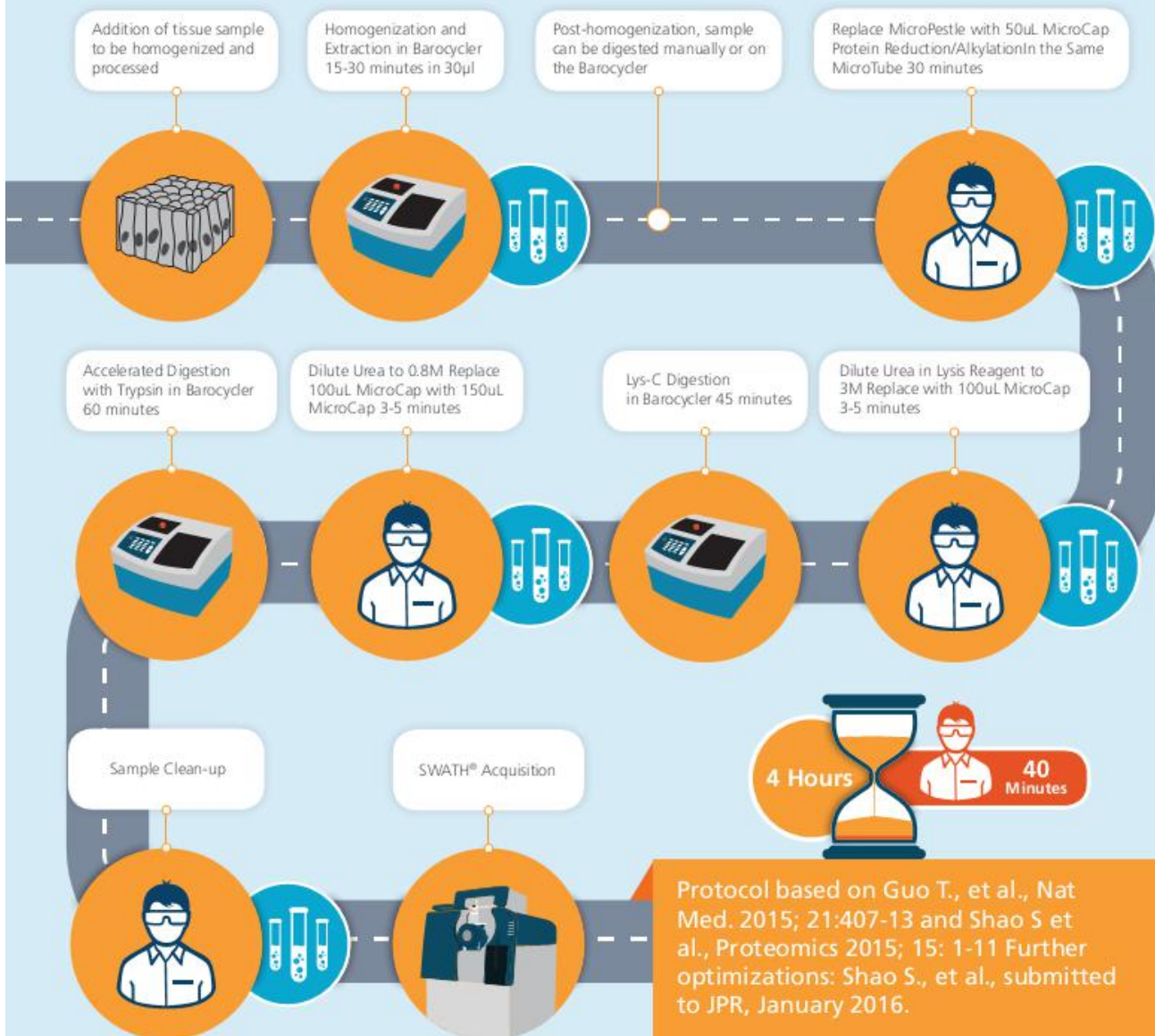
On June 27, 2017, we received \$250,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 20,834 shares of our Common Stock at an exercise price per share equal to \$12.00 per share.

On July 17, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$125,000. The Company paid \$1,250 in fees in connection with this loan.

On August 1, 2017, we received a 6-month non-convertible loan of \$75,000 from a privately-held investment firm. The loan includes an original issue discount of \$18,750.

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RUO-MKT07-4451-A



**2,777,778 Shares of Common Stock
Warrants to Purchase 1,388,889 Shares of Common Stock**



PROSPECTUS

Joseph Gunnar & Co.

, 2017

Through and including _____, 2017 (the 25th day after the date of this offering), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, to be paid by the Registrant in connection with the issuance and distribution of the common stock and warrants being registered. All amounts other than the SEC registration fees and FINRA fees are estimates.

SEC Registration Fee	\$	2,797.90
FINRA Filing Fee	\$	4,845.31
NASDAQ Filing Fee	\$	42,000.00
Printing Fees and Expenses	\$	2,000.00
Accounting Fees and Expenses	\$	50,000.00
Legal Fees and Expenses	\$	150,000.00
Transfer Agent and Registrar Fees	\$	20,000.00
Miscellaneous Fees and Expenses	\$	1,000.00
Total	\$	272,643.21

Item 14. Indemnification of Directors and Officers

Section 8.51 of the Massachusetts Business Corporation Act (the "MBCA"), under which the Registrant is governed, provides that a corporation may indemnify a director who is a party to a proceeding because he is a director against liability incurred in the proceeding if he conducted himself in good faith and he reasonably believed that his conduct was in the best interests of the corporation or that his conduct was at least not opposed to the best interests of the corporation, and, in the case of any criminal proceeding, he had no reasonable cause to believe his conduct was unlawful or he engaged in conduct for which he shall not be liable under a provision of the articles of organization. Section 8.51 also permits a corporation to indemnify a director for conduct for which such individual is or would be exculpated under the corporation's articles of organization, whether or not the director satisfied a particular standard of conduct. Section 8.52 of the MBCA requires corporations to indemnify any director who was wholly successful, on the merits or otherwise, in the defense of any proceeding to which he was a party because he was a director of the corporation against reasonable expenses incurred by him in connection with the proceeding.

Section 8.53 of the MBCA provides that, before the final disposition of a proceeding, a corporation may advance funds to pay for or reimburse the reasonable expenses incurred by a director who is party to such proceeding because he is a director if he delivers to the corporation (a) a written affirmation of his good faith belief that he has met the relevant standard of good faith described in Section 8.51 of the MBCA or that the proceeding involves conduct for which liability has been eliminated pursuant to Section 2.02 of the MBCA and (b) a written undertaking with an unlimited general obligation of the director to repay any funds advanced if he is not entitled to mandatory indemnification under Section 8.52 of the MBCA and it is ultimately determined, under Section 8.54 or Section 8.55 of the MBCA that he does not meet the relevant standard of conduct described in Section 8.51.

Section 8.56 of the MBCA provides that a corporation may indemnify and advance expenses to an officer of the corporation who is a party to a proceeding because he is an officer of the corporation to the same extent as a director, and, if he is an officer but not a director, to such further extent as may be provided by the articles of organization, the by-laws, a resolution of the board of directors or contract, except for liability arising out of acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law. This broader permissible indemnification for officers also is available for a director who is an officer if the individual becomes party to a proceeding on the basis of an act or omission solely as an officer. Section 8.56 of the MBCA also provides that an officer of the corporation who is not a director is entitled to mandatory indemnification under Section 8.52 of the MBCA, and that the officer may apply to a court for indemnification or an advance for expenses, in each case to the same extent to which a director may be entitled to indemnification or advance under those provisions.

Section 2.02 of the MBCA provides that the articles of organization of a corporation may contain a provision eliminating or limiting the personal liability of a director to the corporation for monetary damages for breach of a fiduciary duty as a director notwithstanding any provision of law imposing such liability; provided, however, that such provision shall not eliminate or limit the liability of a director (1) for any breach of the director's duty of loyalty to the corporation or its shareholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for improper distributions under Sections 6.40 of the MBCA or (4) for any transaction from which the director derived an improper personal benefit.

Our Restated Articles of Organization, as amended, state as follows:

"Article 6G. Indemnification. The corporation may provide, either in the corporation's By-laws or by contract, for the indemnification of directors, officers, employees and agents, by whomever elected or appointed, to the full extent presently permitted by law; provided, however, that if applicable law is hereafter modified to permit indemnification in situations where it was not theretofore permitted, then such indemnification may be permitted to the full extent permitted by such law as amended."

Our By-laws, as amended, include provisions to permit the indemnification of officers and directors of the Company for damages arising out of the performance of their duties unless such damages arise out of the officer's or director's failure to exercise his duties and to discharge the duties of his office in good faith and in the reasonable belief that his action was in, or not opposed to, the best interest of the Company, and with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was unlawful.

We have been advised that, in the opinion of the SEC, any indemnification for liabilities arising under the Securities Act is against public policy, as expressed in the Securities Act, and is, therefore, unenforceable.

The Registrant has a directors and officers liability policy that insures the Registrant's directors and officers against certain liabilities which they may incur as directors or officers of the Registrant.

Item 15. Recent Sales of Unregistered Securities

The following sets forth information regarding all unregistered securities sold by us in transactions that were exempt from the requirements of the Securities Act in the last three years. Except where noted, all of the securities discussed in this Item 15 were all issued in reliance on the exemption under Section 4(a)(2) of the Securities Act.

2014

On February 10, 2014 a lender, with the prior approval of the Company, chose to convert \$37,500 of their outstanding note balance into 5,000 shares of the Company's common stock.

On June 23, 2014 a lender, with the prior approval of the Company, chose to convert \$50,000 of their outstanding note balance into 6,666 shares of the Company's common stock.

In March and April 2014, a Series D warrant holder exercised warrants to purchase 19,889 shares of common stock resulting in net proceeds to the Company of \$149,164.

In April 2014 we issued 24,438 shares of common stock to holders of Series G Convertible Preferred Stock for the conversion of 1,959 shares of preferred and \$58,267 of accrued and unpaid dividends on the Series G Convertible Preferred Stock. We also issued 3,083 shares of common stock to holders of Series J Convertible Preferred Stock for the conversion of 4 shares of Series J Convertible Preferred Stock.

In July 2014 we issued 50,582 shares of common stock to holders of Series J Convertible Preferred Stock for the conversion of 49 shares of preferred and \$24,648 of accrued and unpaid dividends on the Series J Convertible Preferred Stock. On August 13, 2014 we issued 6,666 shares of common stock to an investor relations firm for services. The Company recorded \$52,000 as expense related to these services. On September 9, 2014 we issued 2,500 shares of common stock to a lender as a fee for a \$175,000 loan. On September 18, 2014 we issued 2,500 shares of common stock to an investor relations firm as payment for services provided to the Company in 2014. The Company recorded \$44,250 in expense related to this transaction.

On September 22, 2014 the Company issued 2,133 shares of common stock for the conversion of 3 shares of Series K Preferred Convertible Stock. On December 22, 2014 the Company issued 34,500 shares of common stock for the conversion of 35 shares of Series K Preferred Convertible Stock.

In December we issued a total of 5,333 shares of common stock to a lender in exchange for \$49,000 of outstanding loans and fees. We also issued a total of 7,961 shares of common stock to four investor relations firms for services provided.

On December 23, 2014 we issued 120,400 shares of common stock for the exercise of warrants in a warrant reset agreement. 70,000 of these common stock shares were converted to Series H2 Convertible Preferred Stock.

Warrant Reset Agreement

On December 23, 2014, The Company closed a series of Warrant Reset Agreements (“*Warrant Reset Agreements*”) with 30 warrant holders (the “*Warrant Holders*”) in order to re-price their Common Stock Purchase Warrants (the “*Warrants*”). In consideration for the Warrant Holder exercising their outstanding Warrants by or before December 23, 2014, the Company agreed to reduce the exercise price to \$7.50 per warrant share. In addition, for each warrant exercised (the “*Exercised Warrant*”), the Warrant Holder received a New Warrant (the “*New Warrant*”) to purchase that same number of Warrant Shares as exercised, at an exercise price of \$12.00 per share. If the Exercised Warrant terminated on or before December 31, 2015, the date of termination of the New Warrant was December 31, 2015. If the date of termination of the Exercised Warrant was after December 31, 2015, the date of termination of the New Warrant was the same as that of the Exercised Warrant.

As a result of the Warrant Reset Agreements, the Company received \$903,000 from the exercise of warrants and incurred \$40,481 in fees. The Company has issued New Warrants for 120,400 warrant shares, and has requested its transfer agent to issue 120,400 shares of restricted Common Stock (the “*Exercised Warrant Shares*”) to the investors. Neither the Exercised Warrant Shares nor the shares underlying the New Warrants will be registered for sale pursuant to a registration statement.

2015

With respect to the convertible debenture for \$223,000 signed by the Company on December 4, 2013, a lender, with the prior approval of the Company, chose to convert a portion of the outstanding note balance into shares of the Company’s common stock, and to extend the note for approximately 45 days after each conversion, as follows:

On January 14, 2015 \$25,000 was converted into 3,333 shares of the Company’s common stock.

On February 25, 2015 \$38,000 was converted into 4,691 shares of the Company’s common stock.

On April 10, 2015 \$35,000 was converted into 4,667 shares of the Company’s common stock.

On May 29, 2015 \$35,000 was converted into 4,667 shares of the Company’s common stock.

On July 21, 2015 \$20,000 was converted into 2,667 shares of the Company’s common stock.

On August 13, 2015 \$40,000 was converted into 5,333 shares of the Company’s common stock.

On September 25, 2015 \$30,000 was converted into 4,000 shares of the Company’s common stock.

For each extension, the Company paid a fee of \$13,000, \$13,000, \$10,000, and \$8,000, respectively. This note was paid off in its entirety on November 5, 2015.

During the year ended December 31, 2015, the Company issued 58,503 shares with a fair value of \$457,030 for consulting and investor relation services.

On August 14, 2015, the Company closed a Securities Exchange Agreement with Everest Investments Holdings of Warsaw, Poland under which Everest purchased 33,334 shares of the Company's restricted Common Stock at a purchase price of \$15.00/share. In exchange, the Company received 601,500 shares of Everest Investments ("Everest"), a publicly-traded company on the Main Market of the Warsaw Stock Exchange. The shares of Everest were valued at approximately \$400,000 as of the closing date.

With respect to the convertible debenture for \$150,000 signed by the Company on June 4, 2014, a lender, with prior approval of the Company, chose to convert a portion of the outstanding note balance into shares of the Company's common stock, and to extend the note for approximately 30 days after each conversion, as follows:

On February 18, 2015 \$25,000 was converted into 3,333 shares of the Company's common stock.

On March 18, 2015 \$22,500 was converted into 3,000 shares of the Company's common stock.

On March 31, 2015 \$27,500 was converted into 3,667 shares of the Company's common stock.

On April 17, 2015 \$30,000 was converted into 4,000 shares of the Company's common stock.

With respect to the convertible debenture for \$75,000 signed by the Company on November 10, 2014, a lender, upon the request of the Company, on June 8, 2015 agreed to extend the conversion date of the note until July 20, 2015. The lender received 1,333 shares of the Company's common stock in exchange for the extension. The Company recorded \$10,000 to interest expense for this transaction. This note was paid off in its entirety on July 24, 2015.

On various dates in December 2015, \$58,919 of existing convertible debt and interest was converted into 7,856 shares of the Company's common stock.

2016

Senior Secured Convertible Debentures and Warrants

We entered into Subscription Agreements (the "Subscription Agreement") with various individuals (each, a "Purchaser") between July 23, 2015 and March 31, 2016, pursuant to which the Company sold Senior Secured Convertible Debentures (the "Debentures") and warrants to purchase shares of common stock equal to 50% of the number of shares issuable pursuant to the subscription amount (the "Warrants") for an aggregate purchase price of \$6,329,549 (the "Purchase Price").

The Company issued a principal aggregate amount of \$6,962,504 in Debentures which includes a 10% original issue discount on the Purchase Price. The Debenture does not accrue any additional interest during the first year it is outstanding but accrues interest at a rate equal to 10% per annum for the second year it is outstanding. The Debenture has a maturity date of two years from issuance. The Debenture is convertible any time after its issuance date. The Purchaser has the right to convert the Debenture into shares of the Company's common stock at a fixed conversion price equal to \$8.40 per share, subject to applicable adjustments. In the second year that the Debenture is outstanding, any interest accrued shall be payable quarterly in either cash or common stock, at the Company's discretion.

At any time after the Issuance Date, the Company has the option, subject to certain conditions, to redeem some or all of the then outstanding principal amount of the Debenture for cash in an amount equal to the sum of (i) 120% of the then outstanding principal amount of the Debenture, (ii) accrued but unpaid interest and (iii) any liquidated damages and other amounts due in respect of the Debenture.

The Company issued warrants exercisable into a total of 376,759 shares of our common stock. The Warrants issued in this transaction are immediately exercisable at an exercise price of \$12.00 per share, subject to applicable adjustments including full ratchet anti-dilution in the event that we issue any securities at a price lower than the exercise price then in effect. The Warrants have an expiration period of five years from the original issue date. The Warrants are subject to adjustment for stock splits, stock dividends or recapitalizations and also include anti-dilution price protection for subsequent equity sales below the exercise price.

Subject to the terms and conditions of the Warrants, at any time commencing six months from the Final Closing, the Company has the right to call the Warrants for cancellation if the volume weighted average price of its Common Stock on the OTCQB (or other primary trading market or exchange on which the Common Stock is then traded) equals or exceeds three times the per share exercise price of the Warrants for 15 out of 20 consecutive trading days.

Other convertible notes

On May 13, 2016, one lender converted an outstanding note issued on April 28, 2015 and the related accrued interest totaling \$117,837 to 14,028 common shares. As of September 30, 2016, the outstanding balance on the note was zero.

On May 24, 2016 we sold an additional convertible note for \$107,000 with warrants to purchase 1,667 shares of common stock at an exercise price of \$16.50 per share. The purchaser has the right to convert the notes into shares of the Company's common stock at a fixed conversion price equal to \$13.50 per share, subject to applicable adjustments. The estimated fair value of the warrants was determined using the binomial model, resulting in an allocation of \$12,406 to the total warrants and the recognition of a beneficial conversion feature of \$7,962, both of which were recorded as a discount to the note. We evaluated the convertible note and warrants for derivative liability treatment and determined that these instruments do not include certain rights such as price protection like our previous debt financings. Accordingly, we concluded that this financing arrangement did not qualify for derivative accounting treatment.

On June 14, 2016, we sold an additional convertible note for \$115,000 and issued 1,023 common shares to compensate the lender. On July 1, 2016, the note was modified to increase the principal amount to \$200,000 and we received the remaining proceeds of \$85,000 on the same date and issued 1,144 common shares as compensation to the lender. The lender has the right to convert the note into shares of the Company's common stock at fixed conversion price equal to \$13.50 per share, subject to applicable adjustments. We valued the total 2,167 common shares using the stock prices at the respective dates the note proceeds were received and recorded the relative fair value of the shares amounting to \$26,000 as a debt discount to be amortized over the term of the loan. We then computed the effective conversion price of the note, noting that no beneficial conversion feature exists. We also evaluated the convertible note for derivative liability treatment and determined that the instrument does not include certain rights such as price protection like our previous debt financing. Accordingly, we concluded that this financing arrangement did not qualify for derivative accounting treatment.

On July 29, 2016, we sold an additional convertible note for \$100,000 and issued 1,084 common shares to compensate the lender. The lender has the right to convert the notes into shares of the Company's common stock at a fixed conversion price equal to \$13.50 per share, subject to applicable adjustments. The proceeds were allocated between the convertible note and shares of common stock based on their relative fair values. The relative fair values of the convertible note and the common shares was \$87,241 and \$12,759, respectively. We then computed the effective conversion price of the note, noting that the convertible debt gave rise to a beneficial conversion feature (BCF) of \$12,759. The sum of the relative fair value of the common shares and the BCF of \$25,518 was recorded as a debt discount to be amortized over the term of the loan. We also evaluated the convertible note for derivative liability treatment and determined that the instruments does not include certain rights such as price protection like our previous debt financings. Accordingly, we concluded that this financing arrangements did not qualify for derivative accounting treatment.

On September 15, 2016, we sold an additional convertible note for \$500,000 and issued 6,666 common shares to compensate the lender. The lender has the right to convert the notes into shares of the Company's common stock at a fixed conversion price equal to \$13.50 per share, subject to applicable adjustments. The convertible note includes an original issue discount of \$40,541 and is subject to annual interest of 9%. The proceeds were allocated between the convertible note and shares of common stock based on their relative fair values. The relative fair value of the convertible note was \$434,028. The allocation of the gross proceeds to the shares of common stock was \$65,972 and recorded as a debt discount to be amortized over the term of the loan. We then computed the effective conversion price of the note, noting that no beneficial conversion feature exists. We also evaluated the convertible note for derivative liability treatment and determined that the instrument does not include certain rights such as price protection like our previous debt financings. Accordingly, we concluded that this financing arrangement did not qualify for derivative accounting treatment.

Other Issuances

On August 29, September 9 and September 14, 2016, we completed three tranches of a private placement (the "Fall 2016 Private Placement"), pursuant to which we sold an aggregate of 37,500 shares of common stock, \$0.01 par value (the "Shares"), for a purchase price of \$12.00 per share, resulting in gross proceeds to us of approximately \$450,000. The Shares were issued and sold to a total of 2 accredited investors pursuant to a Securities Purchase Agreement entered into as of the date of their investments. The investors received warrants to purchase a total of 37,500 shares of the Company's common stock at an exercise price of \$15.00. The warrants expire 5 years after issuance.

On October 11 and November 10, 2016, we completed two additional tranches of the Fall 2016 Private Placement, pursuant to which we sold an aggregate of 13,334 shares of common stock, \$0.01 par value (the "Shares"), for a purchase price of \$12.00 per share, resulting in gross proceeds to us of approximately \$160,000. The Shares were issued and sold to a total of 2 accredited investors pursuant to a Securities Purchase Agreement entered into as of the date of their investments. The investors received warrants to purchase a total of 13,334 shares of the Company's common stock at an exercise price of \$15.00. The warrants expire 5 years after issuance.

The Fall 2016 Private Placement securities were issued without registration under the Securities Act, in reliance upon the exemption from registration set forth in Rule 506 of Regulation D ("Regulation D") promulgated under the Securities Act. We based such reliance upon representations made by each purchaser of the securities, including, but not limited to, representations as to the purchaser's status as an "accredited investor" (as defined in Rule 501(a) under Regulation D) and the purchaser's investment intent. The securities were not offered or sold by any form of general solicitation or general advertising, as such terms are used in Rule 502 under Regulation D. The securities may not be offered or sold in the United States absent an effective registration statement or an exemption from the registration requirements under applicable federal and state securities laws.

On various dates from January to December 2016 the Company issued 25,167 shares of restricted common stock to investor relations firms for services rendered with a total fair value of \$332,696.

On October 28, 2016, an accredited investor (the "Investor") purchased from us a promissory note in the aggregate principal amount of up to \$2,000,000 (the "Revolving Note") due and payable on the earlier of October 28, 2017 (the "Maturity Date") or on the seventh business day after the closing of a Qualified Offering (as defined in the Revolving Note). Although the Revolving Note is dated October 26, 2016, the transaction did not close until October 28, 2016, when we received its initial \$250,000 advance pursuant to the Revolving Note. As a result, on the same day and pursuant to the Revolving Note, we issued to the Investor a Common Stock Purchase Warrant to purchase 20,834 shares of our common stock at an exercise price per share equal to \$12.00 per share. The Investor is obligated to provide us with advances of \$250,000 under the Revolving Note, but the Investor shall not be required to advance more than \$250,000 in any individual fifteen (15) day period and no more than \$500,000 in the thirty (30) day period immediately following the date of the initial advance. Notwithstanding the fifteen (15) day period limitation, on November 2, 2016, November 23, 2016, December 6, 2016 and December 16, 2016, we received \$1,000,000 pursuant to the Revolving Note and we issued to the Investor additional warrants to purchase 83,334 shares of our Common Stock. The terms of the Warrants are identical except for the exercise date, issue date, and termination date.

In the event that a Qualified Offering occurs on or prior to the six (6) month anniversary of October 28, 2016, within seven (7) Business Days of the closing of the Qualified Offering, the Company shall pay a cash fee equal to five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering or, at the option of the Company, issue to the Holder a number of restricted shares of the Company's common stock equal to (x) five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering divided by (y) the purchase price provided by the documents governing the Qualified Offering. A Qualified Offering means the completion of a public offering of the Company's securities pursuant to which the Company receives aggregate gross proceeds of at least Seven Million United States Dollars (US\$7,000,000) in consideration of the purchase of its securities and resulting in, pursuant to the effectiveness of the registration statement for such offering, the Company's common stock being traded on the NASDAQ Capital Market, NASDAQ Global Select Market or the New York Stock Exchange.

In the event that a Qualified Offering occurs following the six (6) month anniversary of October 28, 2016, but prior to the Maturity Date, within seven(7) Business Days of the closing of the Qualified Offering, the Company shall pay a cash fee equal to five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering or, at the option of the Company, issue to the Holder a number of restricted shares of the Company's common stock equal to (x) five percent (5%) of the total outstanding amount owed by the Company to the Holder as of the closing date of the Qualified Offering divided by (y) the purchase price provided by the documents governing the Qualified Offering.

Interest on the principal balance of the Revolving Note shall be paid in full on the Maturity Date, unless otherwise paid prior to the Maturity Date. Interest shall be assessed as follows: (i) a one-time interest of 10% on all principal amounts advanced prior to April 28, 2017; (ii) the foregoing and 4% on any amount remaining outstanding if the principal amount is repaid between April 28, 2017 and July 28, 2017; or (iii) both of the foregoing and 4% on any amount remaining outstanding if the principal amount is repaid between July 28, 2017 and October 28, 2017.

Broker fees amounting to \$116,500, the one-time interest of \$125,000 and the fair value of the 104,167 warrants issued to the Investor amounting to \$479,730 were recorded as debt discounts and amortized over the term of the revolving note. For the year ended December 31, 2016, the Company recognized amortization expense related to the debt discounts indicated above of \$84,200. The unamortized debt discounts as of December 31, 2016 related to the convertible debentures amounted to \$637,030.

2017

In January 2017, we executed an amendment to the July 1, 2016 convertible note that was due on January 6, 2017. We received an extension of up to three months on the note's due date. In exchange for the extension, we agreed to issue 1,666 shares of restricted common stock and pay the investor \$10,000 for each 30-day extension. We made a payment of \$34,000 in January 2017 for the first one-month

extension and interest on the note from the initial close date through February 6, 2017. On February 28, 2017, the note was paid in full.

On January 17, 2017, we signed a one-year agreement with an investor relations firm. We have the right to terminate the agreement within 10 days of the end of each three-month period. We are committed to pay the IR firm \$25,000 for each three-month term, in three equal monthly allotments, should we choose to keep them under contract. We also have awarded the IR firm warrants to purchase the Company's restricted common stock at an exercise price of \$12.00/share. The number of warrants and exercise price that we are committed to pay the IR firm for each three-month period, should we choose to keep them under contract, is as follows: Months 1-3: 3,334 warrants at \$12.00. Months 4-6: 4,167 warrants at \$18.00. Months 7-9: 4,167 warrants at \$24.00. Months 10-12: 5,000 warrants at \$30.00.

We received \$250,000 in January 2017 and \$500,000 in February 2017 pursuant to the October Revolving Note and we issued to the Investor additional warrants to purchase 62,500 shares of our common stock. The terms of the Warrants are identical except for the exercise date, issue date, and termination date. Interest on the principal balance of the Revolving Note shall be paid in full on the Maturity Date, unless otherwise paid prior to the Maturity Date.

On February 6, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$125,000. The Company paid \$1,250 in fees in connection with this loan. Under the agreement, \$16,180 was used to pay off the prior loan.

On February 15, 2017, we received a six-month, non-convertible loan of \$110,000 from each of two accredited investors. We agreed to issue to each investor 5,667 shares of restricted common stock. The loans earn no interest but carry a 10% original issue fee.

On March 2, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of \$75,000. The Company paid no fees in connection with this loan.

On March 14, 2017, we received an eight-month, non-convertible loan of \$250,000 from a privately-held investment firm. The loan earns an annual interest rate of 10% and includes a 10% original issue discount. We also agreed to issue the investor 8,333 shares of restricted common stock.

On March 16, 2017, we awarded 22,000 incentive stock options to certain employees and 61,834 non-qualified stock options to officers, consultants and directors of the Company. Terms of the stock options include the following significant items: (i) \$8.40 exercise price, (ii) 10-year life, (iii) 36 month vesting equally per month for employees and 12 month vesting equally per month for directors, (iv) options vest immediately upon change in-control.

On March 21, 2017, we received an eight-month, non-convertible loan of \$170,000 from an accredited investor. The loan earns an annual interest rate of 10% and includes a 10% original issue discount. We also agreed to issue the investor 5,667 shares of restricted common stock.

On April 3, 2017, we signed a six-month agreement with an investor relations firm. The agreement includes a cash payment of \$10,000 plus a convertible 8-month note for \$50,000 with the following significant terms: (i) convertible at \$12.00/share, (ii) bears 10% annual interest, (iii) a 20% pre-payment penalty if the Company wants to pre-pay the Note, and (iv) a default rate of 18%. We terminated the agreement on June 7, 2017 and canceled the 8-month convertible note.

On April 19, 2017, we received a 7-month non-convertible loan of \$250,000 from a privately-held investment firm. The loan earns an annual interest rate of 10% and includes a 10% original issue discount. We agreed to issue 833 shares at closing. Until the loan is repaid, we will, over the next one hundred eighty (180) days, issue 2,500 shares to the Investor every sixty (60) days for a total issuance of 8,333 shares. The loan remains outstanding and we have issued 3,333 shares including the closing shares since inception of the loan.

On May 3, 2017, we received \$250,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 20,834 shares of our Common Stock at an exercise price per share equal to \$12.00 per share. The Revolving Note was amended on May 2, 2017 to increase the aggregate principal amount to \$3,000,000, to issue 16,666 shares of our Common Stock to the Investor, to decrease the exercise price per share of the warrants to the lower of (i) \$12.00 or (ii) the per share purchase price of the shares of our Common Stock sold in the Qualified Offering, and to change the references in the Revolving Note from "the six (6) month anniversary of October 28, 2016" to "July 25, 2017."

On May 10, 2017, we received \$149,164 from the exercise of 19,889 stock purchase warrants from the Series D registered direct offering on November 10, 2011. In consideration for the warrant exercises, we issued to the investors warrants to purchase 39,778 shares of our Common Stock at an exercise price per share equal to \$8.40 per share. The warrants expire on the third year anniversary date.

On May 10, 2017, an investor converted 75 shares of Series D Preferred Stock into 6,250 shares of Common Stock. In consideration for the preferred stock conversion, we issued 3,750 shares of restricted Common Stock.

On May 24, 2017, we received \$125,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 10,417 shares of our Common Stock at an exercise price per share equal to \$12.00 per share.

On June 12, 2017, we received \$125,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 10,417 shares of our Common Stock at an exercise price per share equal to \$12.00 per share.

On June 27, 2017, we received \$250,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 20,834 shares of our Common Stock at an exercise price per share equal to \$12.00 per share.

Item 16. Exhibits and Financial Statement Schedules

(a) EXHIBITS

We have filed the exhibits listed on the accompanying Exhibit Index of this registration statement and below in this Item 16:

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed or
		Form	Exhibit	Filing Date	Furnished Herewith
1.1	Form of Underwriting Agreement				X
3.1	Restated Articles of Organization of the Company.	S-1	3.1	10/8/1996	
3.2	Articles of Amendment to Restated Articles of the Organization of the Company	10-Q	3.1	11/23/2004	
3.3	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	2/18/2009	
3.4	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	4/12/2011	
3.5	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	11/10/2011	
3.6	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	1/4/2013	
3.7	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	2/13/2013	
3.8	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	12/12/2013	
3.9	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	2/5/2014	
3.10	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	12/31/2014	
3.11	Articles of Amendment to Restated Articles of the Organization of the Company	8-K	3.1	7/28/2015	
3.12	Amended and Restated By-Laws of the Company	S-1	3.2	10/8/1996	
3.13	Amendment to Amended and Restated By-Laws of the Company	10-K	3.3	3/31/2013	
4.1	Specimen Certificate for Shares of the Company's common stock	10-KSB	4.1	4/22/2005	
4.2	Form of Debenture	8-K	4.1	7/28/2015	
4.3	Form of Warrant	8-K	4.2	7/28/2015	
4.4	Form of Representative's Warrant (included in Exhibit 1.1)				X
4.5	Form of Warrant Agency Agreement by and between Pressure BioSciences, Inc. and Computershare Trust Company, N.A. and Form of Warrant Certificate				X
5.1	Opinion of Lucosky Brookman LLP.				X
10.1	Technology Transfer and Patent Assignment Agreement dated October 7, 1996, between Bioseq, Inc. and BioMolecular Assays, Inc.	10-K	10.11	3/27/2008	
10.2	Amendment to Technology Transfer and Patent Assignment Agreement dated October 8, 1998 between Bioseq, Inc. and BioMolecular Assays, Inc.	10-K	10.12	3/27/2008	
10.3	Nonexclusive License Agreement dated September 30, 1998 between Bioseq, Inc. and BioMolecular Assays, Inc.	10-K	10.13	3/27/2008	
10.4	Subscription Agreement	8-K	10.1	7/28/2015	
10.5	Security Agreement	8-K	10.2	7/28/2015	
10.6	Promissory Note, dated October 26, 2016	8-K	10.1	11/03/2016	
10.7	2005 Equity Incentive Plan.*	S-8	99.1	09/26/2005	
10.8	Amendment No. 1 to 2005 Equity Incentive Plan*	8-K	10.1	09/29/2008	
10.9	Description of Compensation for Certain Directors*	10-K	10.5	03/27/2008	
10.10	Severance Agreement between the registrant and Richard T. Schumacher*	10-K	10.6	03/27/2008	
10.11	Form of Severance Agreement including list of officers to whom provided*	10-K	10.7	03/27/2008	
10.12	2015 Nonqualified Stock Option Plan.*	S-8	4.1	04/24/2015	
10.13	Securities Purchase Agreement	10-Q	10.1	11/14/2016	
10.14	BG Preferred Stock Letter Agreement	S-1/A	10.14	06/16/2017	
10.15	Form of Debenture Holder Letter Agreement	S-1/A	10.15	06/16/2017	
10.16	Debenture and Fall 2016 Holder Letter Agreements	S-1/A	10.16	06/16/2017	

10.17	Accredited Investor Letter Agreement	S-1/A	10.17	06/16/2017	
21.1	List of subsidiaries	S-1/A	21.1	06/16/2017	
23.1	Consent of Independent Registered Public Accounting Firm (Malone Bailey LLP)				X
23.2	Consent of Lucosky Brookman LLP (reference is made to Exhibit 5.1)				X

*Management contract or compensatory plan or arrangement.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;
- (2) That for the purpose of determining any liability under the Securities Act of 1933 each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.
 - (7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described in Item 14 above, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
 - (8) The undersigned Registrant hereby undertakes:
 - (1) That for purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4), or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
 - (2) That for the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and this offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of South Easton, Massachusetts, on August 9, 2017.

Pressure BioSciences, Inc.

By: /s/ Richard T. Schumacher

Name: Richard T. Schumacher

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

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Richard T. Schumacher</u> Richard T. Schumacher	President, Chief Executive Officer, Treasurer, Clerk and Director (Principal Executive Officer),	August 9 , 2017
<u>/s/ Joseph L. Damasio Jr.</u> Joseph L. Damasio Jr.	Vice President and Chief Financial Officer (Principal Accounting and Financial Officer),	August 9 , 2017
<u>/s/ Jeffrey N. Peterson</u> Jeffrey N. Peterson	Chairman of the Board of Directors	August 9 , 2017
<u>/s/ Mickey Urdea</u> Mickey Urdea, Ph.D.	Director	August 9 , 2017
<u>/s/ Vito Mangiardi</u> Vito Mangiardi	Director	August 9 , 2017
<u>/s/ Kevin A. Pollack</u> Kevin A. Pollack	Director	August 9 , 2017

UNDERWRITING AGREEMENT

Between

PRESSURE BIOSCIENCES, INC.

and

JOSEPH GUNNAR & CO., LLC

as Representative of the Several Underwriters

PRESSURE BIOSCIENCES, INC.

UNDERWRITING AGREEMENT

New York, New York
_____, 2017

Joseph Gunnar & Co., LLC
As Representative of the several Underwriters named on Schedule 1 attached hereto
30 Broad Street, 11th Floor
New York, NY 10004

Ladies and Gentlemen:

The undersigned, Pressure BioSciences, Inc., a corporation formed under the laws of the Commonwealth of Massachusetts (collectively with its subsidiaries and affiliates, including, without limitation, all entities disclosed or described in the Registration Statement (as hereinafter defined) as being subsidiaries or affiliates of Pressure BioSciences, Inc., the "**Company**"), hereby confirms its agreement (this "**Agreement**") with Joseph Gunnar & Co., LLC. (hereinafter referred to as "you" (including its correlatives) or the "**Representative**") and with the other underwriters named on Schedule 1 hereto for which the Representative is acting as representative (the Representative and such other underwriters being collectively called the "**Underwriters**" or, individually, an "**Underwriter**") as follows:

1. Purchase and Sale of Securities.

1.1 Firm Securities.

1.1.1 Nature and Purchase of Firm Securities.

(i) On the basis of the representations and warranties herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell to the several Underwriters, an aggregate of [____] shares ("Firm Shares") of the Company's common stock, par value \$0.01 per share (the "Common Stock"). For every two Firm Shares issued and sold by the Company, the Company shall issue and sell to the several Underwriters one warrant to purchase [one] share of Common Stock at an exercise price of \$_____ per share (125.0% of the public offering price per Firm Security in the Offering) (each, a "**Warrant**" and collectively, the "**Warrants**"), or an aggregate of _____ Warrants to purchase an aggregate of _____ shares of Common Stock (the "**Firm Warrants**" and together with the Firm Shares, the "**Firm Securities**"). Each Firm Warrant shall be exercisable for a period of [five (5)] years at an exercise price of \$[____] (the "Firm Warrant Exercise Price"), subject to adjustment as provided in the agreement evidencing the Firm Warrant. The Firm Shares and the Firm Warrants will be separated immediately upon issuance.

(ii) The Underwriters, severally and not jointly, agree to purchase from the Company the number of Firm Securities set forth opposite their respective names on Schedule 1 attached hereto and made a part hereof at a purchase price of \$[____] per Firm Security ([93]% of the per Firm Security public offering price). The Firm Securities are to be offered initially to the public at the offering price set forth on the cover page of the Prospectus (as defined in Section 2.1.1 hereof).

1.1.2 Securities Payment and Delivery.

(i) Delivery and payment for the Firm Securities shall be made at 10:00 a.m., Eastern time, on the third (3rd) Business Day following the effective date (the “Effective Date”) of the Registration Statement (as defined in Section 2.1.1 below) (or the fourth (4th) Business Day following the Effective Date if the Registration Statement is declared effective after 4:01 p.m., Eastern time) or at such earlier time as shall be agreed upon by the Representative and the Company, at the offices of Loeb & Loeb LLP, 345 Park Avenue, New York, NY 10154 (“Representative Counsel”), or at such other place (or remotely by facsimile or other electronic transmission) as shall be agreed upon by the Representative and the Company. The hour and date of delivery and payment for the Firm Securities is called the “Closing Date.”

(ii) Payment for the Firm Securities shall be made on the Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery of the certificates (in form and substance satisfactory to the Underwriters) representing the Firm Securities (or through the facilities of the Depository Trust Company (“DTC”)) for the account of the Underwriters. The Firm Securities shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least two (2) full Business Days prior to the Closing Date. The Company shall not be obligated to sell or deliver the Firm Securities except upon tender of payment by the Representative for all of the Firm Securities. The term “Business Day” means any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions are authorized or obligated by law to close in New York, New York.

1.2 Over-allotment Option.

1.2.1 Option Securities. For the purposes of covering any over-allotments in connection with the distribution and sale of the Firm Securities, the Company hereby grants to the Underwriters an option (the “Over-allotment Option”) to purchase up to (a) [] additional shares of Common Stock (the “Option Shares”) at a purchase price of \$[] per one Option Share and/or (b) up to [] additional warrants (the “Option Warrants” and collectively with the Option Shares, the “Option Securities”) at a purchase price of \$[] per Option Warrant, (the “Warrant Purchase Price”), which may be purchased in any combination of Option Shares and/or Option Warrants. The Firm Securities and the Option Securities are hereinafter referred to together as the “Public Securities.” The offering and sale of the Public Securities is hereinafter referred to as the “Offering.”

1.2.2 Exercise of Option. The Over-allotment Option granted pursuant to Section 1.2.1 hereof may be exercised by the Representative as to all (at any time) or any part (from time to time) of the Option Securities within 45 days after the Effective Date. The purchase price to be paid per Option Share shall be equal to _____ per Option Share. The purchase price to be paid per Option Warrant shall be equal to _____ per Option Warrant. The Underwriters shall not be under any obligation to purchase any Option Securities prior to the exercise of the Over-allotment Option. The Over-allotment Option granted hereby may be exercised by the giving of oral notice to the Company from the Representative, which must be confirmed in writing by overnight mail or facsimile or other electronic transmission setting forth the number of Option Shares and/or Option Warrants to be purchased and the date and time for delivery of and payment for the Option Securities (the “Option Closing Date”), which shall not be later than three (3) full Business Days after the date of the notice or such other time as shall be agreed upon by the Company and the Representative, at the offices of Representative Counsel or at such other place (including remotely by facsimile or other electronic transmission) as shall be agreed upon by the Company and the Representative. If such delivery and payment for the Option Securities does not occur on the Closing Date, the Option Closing Date will be as set forth in the notice. Upon exercise of the Over-allotment Option with respect to all or any portion of the Option Securities, subject to the terms and conditions set forth herein, (i) the Company shall become obligated to sell to the Underwriters the number of Option Shares and/or Option Warrants specified in such notice and (ii) each of the Underwriters, acting severally and not jointly, shall purchase that portion of the total number of Option Shares and/or Option Warrants then being purchased as set forth in Schedule 1 opposite the name of such Underwriter.

1.2.3 Payment and Delivery. Payment for the Option Securities shall be made on the Option Closing Date by wire transfer in Federal (same day) funds, payable to the order of the Company upon delivery of the certificates (in form and substance satisfactory to the Underwriters) representing the Option Securities (or through the facilities of DTC) for the account of the Underwriters. The Option Securities shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least two (2) full Business Days prior to the Option Closing Date. The Company shall not be obligated to sell or deliver the Option Shares and/or Option Warrants except upon tender of payment by the Representative for the applicable Option Shares and/or Option Warrants. The Option Closing Date may be simultaneous with, but not earlier than, the Closing Date; and in the event that such time and date are simultaneous with the Closing Date, the term Closing Date shall refer to the time and date of delivery of the Firm Securities and Option Securities.

1.3 Representative's Warrants.

1.3.1 Purchase Warrants. The Company hereby agrees to issue and sell to the Representative (and/or its designee) on the Closing Date an option ("Representative's Warrant") for the purchase of an aggregate of [] shares of Common Stock, representing 5% of the Firm Shares (excluding the Option Shares), for an aggregate purchase price of \$100.00. The Representative's Warrant, in the form attached hereto as Exhibit A, shall be exercisable, in whole or in part, commencing on a date which is one (1) year after the Effective Date and expiring on the five-year anniversary of the Effective Date at an initial exercise price per share of Common Stock of \$[], which is equal to 125% of the initial public offering price of the Firm Shares. The Representative's Warrant and the shares of Common Stock issuable upon exercise thereof are hereinafter referred to together as the "Representative's Securities." The Representative understands and agrees that there are significant restrictions pursuant to FINRA Rule 5110 against transferring the Representative's Warrant and the underlying shares of Common Stock during the one hundred eighty (180) days after the Effective Date and by its acceptance thereof shall agree that it will not sell, transfer, assign, pledge or hypothecate the Representative's Warrant, or any portion thereof, 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 for a period of one hundred eighty (180) days following the Effective Date to anyone other than (i) an Underwriter or a selected dealer in connection with the Offering, or (ii) a bona fide officer or partner of the Representative or of any such Underwriter or selected dealer; and only if any such transferee agrees to the foregoing lock-up restrictions.

1.3.2 Delivery. Delivery of the Representative's Warrant shall be made on the Closing Date and shall be issued in the name or names and in such authorized denominations as the Representative may request.

2. Representations and Warranties of the Company. The Company represents and warrants to the Underwriters as of the Applicable Time (as defined below), as of the Closing Date and as of the Option Closing Date, if any, as follows:

2.1 Filing of Registration Statement

2.1.1 Pursuant to the Securities Act. The Company has filed with the U.S. Securities and Exchange Commission (the “Commission”) a registration statement, and an amendment or amendments thereto, on Form S-1 (File No.333-215277), including any related prospectus or prospectuses, for the registration of the Public Securities and the Representative’s Securities under the Securities Act of 1933, as amended (the “Securities Act”), which registration statement and amendment or amendments have been prepared by the Company in all material respects in conformity with the requirements of the Securities Act and the rules and regulations of the Commission under the Securities Act (the “Securities Act Regulations”) and will contain all material statements that are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations. Except as the context may otherwise require, such registration statement, as amended, on file with the Commission at the time the registration statement became effective (including the Preliminary Prospectus included in the registration statement, financial statements, schedules, exhibits and all other documents filed as a part thereof or incorporated therein and all information deemed to be a part thereof as of the Effective Date pursuant to paragraph (b) of Rule 430A of the Securities Act Regulations (the “Rule 430A Information”), is referred to herein as the “Registration Statement.” If the Company files any registration statement pursuant to Rule 462(b) of the Securities Act Regulations, then after such filing, the term “Registration Statement” shall include such registration statement filed pursuant to Rule 462(b). The Registration Statement has been declared effective by the Commission on the date hereof.

Each prospectus used prior to the effectiveness of the Registration Statement, and each prospectus that omitted the Rule 430A Information that was used after such effectiveness and prior to the execution and delivery of this Agreement, is herein called a “Preliminary Prospectus.” The Preliminary Prospectus, subject to completion, dated [_____], 2017, that was included in the Registration Statement immediately prior to the Applicable Time is hereinafter called the “Pricing Prospectus.” The final prospectus in the form first furnished to the Underwriters for use in the Offering is hereinafter called the “Prospectus.” Any reference to the “most recent Preliminary Prospectus” shall be deemed to refer to the latest Preliminary Prospectus included in the Registration Statement.

“Applicable Time” means [TIME] [a.m./p.m.], Eastern time, on the date of this Agreement.

“Issuer Free Writing Prospectus” means any “issuer free writing prospectus,” as defined in Rule 433 of the Securities Act Regulations (“Rule 433”), including without limitation any “free writing prospectus” (as defined in Rule 405 of the Securities Act Regulations) relating to the Public Securities that is (i) required to be filed with the Commission by the Company, (ii) a “road show that is a written communication” within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission, or (iii) exempt from filing with the Commission pursuant to Rule 433(d)(5)(i) because it contains a description of the Public Securities or of the Offering that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g).

“Issuer General Use Free Writing Prospectus” means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors (other than a “*bona fide* electronic road show,” as defined in Rule 433 (the “Bona Fide Electronic Road Show”), as evidenced by its being specified in Schedule 2-B hereto.

“Issuer Limited Use Free Writing Prospectus” means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

“Pricing Disclosure Package” means any Issuer General Use Free Writing Prospectus issued at or prior to the Applicable Time, the Pricing Prospectus and the information included on Schedule 2-A hereto, all considered together.

2.1.2 Pursuant to the Exchange Act. The Company has filed with the Commission a Form 8-A (File Number 000-[]) providing for the registration pursuant to Section 12(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), of the shares of Common Stock and the Warrants. The registration of the shares of Common Stock and the Warrants under the Exchange Act has been declared effective by the Commission on or prior to the date hereof. The Company has taken no action designed to, or likely to have the effect of, terminating the registration of \of Common Stock or the Warrants under the Exchange Act, nor has the Company received any notification that the Commission is contemplating terminating either such registration.

2.2 Stock Exchange Listing. Each of the Common Stock and the Warrants has been approved for listing on the NASDAQ Capital Market (the "Exchange"), and the Company has taken no action designed to, or likely to have the effect of, delisting either the Common Stock or the Warrants from the Exchange, nor has the Company received any notification that the Exchange is contemplating terminating either such listing except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.3 No Stop Orders, etc. Neither the Commission nor, to the Company's knowledge, any state regulatory authority has issued any order preventing or suspending the use of the Registration Statement, any Preliminary Prospectus or the Prospectus or has instituted or, to the Company's knowledge, threatened to institute, any proceedings with respect to such an order. The Company has complied with each request (if any) regarding the Registration Statement, any Preliminary Prospectus or the Prospectus from the Commission for additional information.

2.4 Disclosures in Registration Statement.

2.4.1 Compliance with Securities Act and 10b-5 Representation.

(i) Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus, including the prospectus filed as part of the Registration Statement as originally filed or as part of any amendment or supplement thereto, and the Prospectus, at the time each was filed with the Commission, complied in all material respects with the requirements of the Securities Act and the Securities Act Regulations. Each Preliminary Prospectus delivered to the Underwriters for use in connection with this Offering and the Prospectus was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(ii) Neither the Registration Statement nor any amendment thereto, at its effective time, as of the Applicable Time, at the Closing Date or at any Option Closing Date (if any), contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading.

(iii) The Pricing Disclosure Package, as of the Applicable Time, at the Closing Date or at any Option Closing Date (if any), did not, does not and will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; [and each Issuer Limited Use Free Writing Prospectus hereto] does not conflict with the information contained in the Registration Statement, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, and each such Issuer Limited Use Free Writing Prospectus, as supplemented by and taken together with the Pricing Prospectus as of the Applicable Time, did not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements made or statements omitted in reliance upon and in conformity with written information furnished to the Company with respect to the Underwriters by the Representative expressly for use in the Registration Statement, the Pricing Prospectus or the Prospectus or any amendment thereof or supplement thereto. The parties acknowledge and agree that such information provided by or on behalf of any Underwriter consists solely of the following disclosure contained in the "Underwriting" section of the Prospectus: (i) the table showing the number of securities to be purchased by each Underwriter, (ii) the fourth full paragraph under the caption "Underwriting", and (iii) the section titled "Discretionary Accounts" under the caption "Underwriting" (the "Underwriters Information"); and

(iv) Neither the Prospectus nor any amendment or supplement thereto (including any prospectus wrapper), as of its issue date, at the time of any filing with the Commission pursuant to Rule 424(b), at the Closing Date or at any Option Closing Date, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to the Underwriters' Information.

2.4.2 Disclosure of Agreements. The agreements and documents described in the Registration Statement, the Pricing Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the Securities Act Regulations to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus, or (ii) is material to the Company's business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company's knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the Company's knowledge, any other party is in default thereunder and, to the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the best of the Company's knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses (each, a "Governmental Entity"), including, without limitation, those relating to environmental laws and regulations.

2.4.3 Prior Securities Transactions. No securities of the Company have been sold by the Company or by or on behalf of, or for the benefit of, any person or persons controlling, controlled by or under common control with the Company, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Preliminary Prospectus.

2.4.4 Regulations. The disclosures in the Registration Statement, the Pricing Disclosure Package and the Prospectus concerning the effects of federal, state, local and all foreign regulation on the Offering and the Company's business as currently contemplated are correct in all material respects and no other such regulations are required to be disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus which are not so disclosed.

2.5 Changes After Dates in Registration Statement.

2.5.1 No Material Adverse Change. Since the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except as otherwise specifically stated therein: (i) there has been no material adverse change in the financial position or results of operations of the Company, nor any change or development that, singularly or in the aggregate, would involve a material adverse change, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company (a “Material Adverse Change”); (ii) there have been no material transactions entered into by the Company, other than as contemplated pursuant to this Agreement; and (iii) no officer or director of the Company has resigned from any position with the Company.

2.5.2 Recent Securities Transactions, etc. Subsequent to the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and except as may otherwise be indicated or contemplated herein or disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not: (i) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock.

2.6 Independent Accountants. To the knowledge of the Company, MaloneBailey LLP (the “Auditor”), whose report is filed with the Commission as part of the Registration Statement, the Pricing Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Securities Act Regulations and the Public Company Accounting Oversight Board. The Auditor has not, during the periods covered by the financial statements included in the Registration Statement, the Pricing Disclosure Package and the Prospectus, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act.

2.7 Financial Statements, etc. The financial statements, including the notes thereto and supporting schedules included in the Registration Statement, the Pricing Disclosure Package and the Prospectus, fairly present the financial position and the results of operations of the Company at the dates and for the periods to which they apply; and such financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”), consistently applied throughout the periods involved (provided that unaudited interim financial statements are subject to year-end audit adjustments that are not expected to be material in the aggregate and do not contain all footnotes required by GAAP); and the supporting schedules included in the Registration Statement present fairly the information required to be stated therein. Except as included therein, no historical or pro forma financial statements are required to be included in the Registration Statement, the Pricing Disclosure Package or the Prospectus under the Securities Act or the Securities Act Regulations. The pro forma and pro forma as adjusted financial information and the related notes, if any, included in the Registration Statement, the Pricing Disclosure Package and the Prospectus have been properly compiled and prepared in accordance with the applicable requirements of the Securities Act and the Securities Act Regulations and present fairly the information shown therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein. All disclosures contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus regarding “non-GAAP financial measures” (as such term is defined by the rules and regulations of the Commission), if any, comply with Regulation G of the Exchange Act and Item 10 of Regulation S-K of the Securities Act, to the extent applicable. Each of the Registration Statement, the Pricing Disclosure Package and the Prospectus discloses all material off-balance sheet transactions, arrangements, obligations (including contingent obligations), and other relationships of the Company with unconsolidated entities or other persons that may have a material current or future effect on the Company’s financial condition, changes in financial condition, results of operations, liquidity, capital expenditures, capital resources, or significant components of revenues or expenses. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (a) neither the Company nor any of its direct and indirect subsidiaries, including each entity disclosed or described in the Registration Statement, the Pricing Disclosure Package and the Prospectus as being a subsidiary of the Company (each, a “Subsidiary” and, collectively, the “Subsidiaries”), has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business, (b) the Company has not declared or paid any dividends or made any distribution of any kind with respect to its capital stock, (c) there has not been any change in the capital stock of the Company or any of its Subsidiaries, or, other than in the course of business, any grants under any stock compensation plan, and (d) there has not been any material adverse change in the Company’s long-term or short-term debt.

2.8 Authorized Capital; Options, etc. The Company had, at the date or dates indicated in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the duly authorized, issued and outstanding capitalization as set forth therein. Based on the assumptions stated in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company will have on the Closing Date the adjusted stock capitalization set forth therein. Except as set forth in, or contemplated by, the Registration Statement, the Pricing Disclosure Package and the Prospectus, on the Effective Date, as of the Applicable Time and on the Closing Date and any Option Closing Date, there will be no stock options, warrants, or other rights to purchase or otherwise acquire any authorized, but unissued shares of Common Stock of the Company or any security convertible or exercisable into shares of Common Stock of the Company, or any contracts or commitments to issue or sell shares of Common Stock or any such options, warrants, rights or convertible securities.

2.9 Valid Issuance of Securities, etc.

2.9.1 Outstanding Securities. All issued and outstanding securities of the Company issued prior to the transactions contemplated by this Agreement have been duly authorized and validly issued and are fully paid and non-assessable; the holders thereof have no rights of rescission with respect thereto, and are not subject to personal liability by reason of being such holders; and none of such securities were issued in violation of the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company. The authorized shares of Common Stock conform in all material respects to all statements relating thereto contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus. The offers and sales of the outstanding shares of Common Stock were at all relevant times either registered under the Securities Act and the applicable state securities or “blue sky” laws or, based in part on the representations and warranties of the purchasers of such shares, exempt from such registration requirements. The description of the Company’s stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, accurately and fairly present, in all material respects, the information required to be shown with respect to such plans, arrangements, options and rights.

2.9.2 Securities Sold Pursuant to this Agreement. The Public Securities and Representative’s Securities have been duly authorized for issuance and sale and, when issued and paid for, will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders; the Public Securities and Representative’s Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company; and all corporate action required to be taken for the authorization, issuance and sale of the Public Securities and Representative’s Securities have been duly and validly taken. The Public Securities and Representative’s Securities conform in all material respects to all statements with respect thereto contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus. All corporate action required to be taken for the authorization, issuance and sale of the Representative’s Warrant has been duly and validly taken; the shares of Common Stock issuable upon exercise of the Representative’s Warrant have been duly authorized and reserved for issuance by all necessary corporate action on the part of the Company and when paid for and issued in accordance with the Representative’s Warrant and the Representative’s Warrant, such shares of Common Stock will be validly issued, fully paid and non-assessable; the holders thereof are not and will not be subject to personal liability by reason of being such holders; and such shares of Common Stock are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company.

2.10 Registration Rights of Third Parties. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, no holders of any securities of the Company or any rights exercisable for or convertible or exchangeable into securities of the Company have the right to require the Company to register any such securities of the Company under the Securities Act or to include any such securities in a registration statement to be filed by the Company.

2.11 Validity and Binding Effect of Agreements. This Agreement, and the Representative's Warrant have been duly and validly authorized by the Company, and, when executed and delivered, will constitute, the valid and binding agreements of the Company, enforceable against the Company in accordance with their respective terms, except: (i) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally; (ii) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws; and (iii) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

2.12 No Conflicts, etc. The execution, delivery and performance by the Company of this Agreement, the Representative's Warrant and all ancillary documents, the consummation by the Company of the transactions herein and therein contemplated and the compliance by the Company with the terms hereof and thereof do not and will not, with or without the giving of notice or the lapse of time or both: (i) result in a material breach of, or conflict with any of the terms and provisions of, or constitute a material default under, or result in the creation, modification, termination or imposition of any lien, charge or encumbrance upon any property or assets of the Company pursuant to the terms of any agreement or instrument to which the Company is a party; (ii) result in any violation of the provisions of the Company's Articles of Organization (as the same may be amended or restated from time to time, the "Charter") or the by-laws of the Company; or (iii) violate any existing applicable law, rule, regulation, judgment, order or decree of any Governmental Entity as of the date hereof.

2.13 No Defaults; Violations. No material default exists in the due performance and observance of any term, covenant or condition of any material license, contract, indenture, mortgage, deed of trust, note, loan or credit agreement, or any other agreement or instrument evidencing an obligation for borrowed money, or any other material agreement or instrument to which the Company is a party or by which the Company may be bound or to which any of the properties or assets of the Company is subject. The Company is not in violation of any term or provision of its Charter or by-laws, or in violation of any franchise, license, permit, applicable law, rule, regulation, judgment or decree of any Governmental Entity.

2.14 Corporate Power; Licenses; Consents.

2.14.1 Conduct of Business. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has all requisite corporate power and authority, and has all necessary authorizations, approvals, orders, licenses, certificates and permits of and from all governmental regulatory officials and bodies that it needs as of the date hereof to conduct its business purpose in all material respects as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.14.2 Transactions Contemplated Herein. The Company has all corporate power and authority to enter into this Agreement and to carry out the provisions and conditions hereof, and all consents, authorizations, approvals and orders required in connection therewith have been obtained. No consent, authorization or order of, and no filing with, any court, government agency or other body is required for the valid issuance, sale and delivery of the Public Securities and the consummation of the transactions and agreements contemplated by this Agreement and the Representative's Warrant and as contemplated by the Registration Statement, the Pricing Disclosure Package and the Prospectus, except with respect to applicable federal and state securities laws and the rules and regulations of the Financial Industry Regulatory Authority, Inc. ("FINRA").

2.15 D&O Questionnaires. To the Company's knowledge, all information contained in the questionnaires (the "Questionnaires") completed by each of the Company's directors and officers immediately prior to the Offering (the "Insiders") as supplemented by all information concerning the Company's directors, officers and principal shareholders as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, as well as in the Lock-Up Agreement (as defined in Section 2.24 below), provided to the Underwriters, is true and correct in all material respects and the Company has not become aware of any information which would cause the information disclosed in the Questionnaires to become materially inaccurate and incorrect.

2.16 Litigation; Governmental Proceedings. There is no action, suit, proceeding, inquiry, arbitration, investigation, litigation or governmental proceeding pending or, to the Company's knowledge, threatened against, or involving the Company or, to the Company's knowledge, any executive officer or director which has not been disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus which is required to be disclosed.

2.17 Good Standing. The Company has been duly organized and is validly existing as a corporation and is in good standing under the laws of the State of Massachusetts as of the date hereof, and is duly qualified to do business and is in good standing in each other jurisdiction in which its ownership or lease of property or the conduct of business requires such qualification, except where the failure to qualify, singularly or in the aggregate, would not have or reasonably be expected to result in a Material Adverse Change.

2.18 Insurance. The Company carries or is entitled to the benefits of insurance, with reputable insurers, in such amounts and covering such risks which the Company believes are adequate, including, but not limited to, directors and officers insurance coverage at least equal to \$3,000,000 and the Company has included each Underwriter as an additional insured party to the directors and officers insurance coverage and all such insurance is in full force and effect. The Company has no reason to believe that it will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Change.

2.19 Transactions Affecting Disclosure to FINRA.

2.19.1 Finder's Fees. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no claims, payments, arrangements, agreements or understandings relating to the payment of a finder's, consulting or origination fee by the Company or any Insider with respect to the sale of the Public Securities hereunder or any other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its shareholders that may affect the Underwriters' compensation, as determined by FINRA.

2.19.2 Payments Within Twelve (12) Months. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not made any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member, within the twelve (12) months prior to the Effective Date, other than the payment to the Underwriters as provided hereunder in connection with the Offering.

2.19.3 Use of Proceeds. None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein.

2.19.4 FINRA Affiliation. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and Prospectus, there is no (i) officer or director of the Company, (ii) beneficial owner of 5% or more of any class of the Company's securities or (iii) beneficial owner of the Company's unregistered equity securities which were acquired during the 180-day period immediately preceding the filing of the Registration Statement that is an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

2.19.5 Information. All information provided by the Company in its FINRA questionnaire to Representative Counsel specifically for use by Representative Counsel in connection with its Public Offering System filings (and related disclosure) with FINRA is true, correct and complete in all material respects.

2.20 Foreign Corrupt Practices Act. None of the Company and its Subsidiaries or, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company and its Subsidiaries or any other person acting on behalf of the Company and its Subsidiaries, has, directly or indirectly, given or agreed to give any money, gift or similar benefit (other than legal price concessions to customers in the ordinary course of business) to any customer, supplier, employee or agent of a customer or supplier, or official or employee of any governmental agency or instrumentality of any government (domestic or foreign) or any political party or candidate for office (domestic or foreign) or other person who was, is, or may be in a position to help or hinder the business of the Company (or assist it in connection with any actual or proposed transaction) that (i) might subject the Company to any damage or penalty in any civil, criminal or governmental litigation or proceeding, (ii) if not given in the past, might have had a Material Adverse Change or (iii) if not continued in the future, might adversely affect the assets, business, operations or prospects of the Company. The Company has taken reasonable steps to ensure that its accounting controls and procedures are sufficient to cause the Company to comply in all material respects with the Foreign Corrupt Practices Act of 1977, as amended.

2.21 Compliance with OFAC. None of the Company and its Subsidiaries or, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company and its Subsidiaries or any other person acting on behalf of the Company and its Subsidiaries, is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury ("OFAC"), and the Company will not, directly or indirectly, use the proceeds of the Offering hereunder, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

2.22 Money Laundering Laws. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any Governmental Entity (collectively, the “Money Laundering Laws”); and no action, suit or proceeding by or before any Governmental Entity involving the Company with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

2.23 Officers’ Certificate. Any certificate signed by any duly authorized officer of the Company and delivered to you or to Representative Counsel shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

2.24 Lock-Up Agreements. Schedule 3 hereto contains a complete and accurate list of the Company’s officers, directors each owner of at least 5% of the Company’s outstanding shares of Common Stock (or securities convertible or exercisable into shares of Common Stock) and such other parties as mutually agreed upon by the Company and the Representative (collectively, the “Lock-Up Parties”). The Company has caused each of the Lock-Up Parties to deliver to the Representative an executed Lock-Up Agreement, in the form attached hereto as Exhibit B (the “Lock-Up Agreement”), prior to the execution of this Agreement.

2.25 Subsidiaries. All direct and indirect Subsidiaries of the Company are duly organized and in good standing under the laws of the place of organization or incorporation, and each Subsidiary is in good standing in each jurisdiction in which its ownership or lease of property or the conduct of business requires such qualification, except where the failure to qualify would not have a material adverse effect on the assets, business or operations of the Company taken as a whole. The Company’s ownership and control of each Subsidiary is as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.26 Related Party Transactions. There are no business relationships or related party transactions involving the Company or any other person required to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus that have not been described as required.

2.27 Board of Directors. The Board of Directors of the Company is comprised of the persons set forth under the heading of the Pricing Prospectus and the Prospectus captioned “Management.” The qualifications of the persons serving as board members and the overall composition of the board comply with the Exchange Act, the Exchange Act Regulations, the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder (the “Sarbanes-Oxley Act”) applicable to the Company and the listing rules of the Exchange. At least one member of the Audit Committee of the Board of Directors of the Company qualifies as an “audit committee financial expert,” as such term is defined under Regulation S-K and the listing rules of the Exchange. In addition, at least a majority of the persons serving on the Board of Directors qualify as “independent,” as defined under the listing rules of the Exchange.

2.28 Sarbanes-Oxley Compliance.

2.28.1 Disclosure Controls. The Company has developed and currently maintains disclosure controls and procedures that will comply with Rule 13a-15 or 15d-15 under the Exchange Act Regulations, and such controls and procedures are effective to ensure that all material information concerning the Company will be made known on a timely basis to the individuals responsible for the preparation of the Company’s Exchange Act filings and other public disclosure documents.

2.28.2 Compliance. The Company is, or at the Applicable Time and on the Closing Date will be, in material compliance with the provisions of the Sarbanes-Oxley Act applicable to it, and has implemented or will implement such programs and taken reasonable steps to ensure the Company's future compliance (not later than the relevant statutory and regulatory deadlines therefor) with all of the material provisions of the Sarbanes-Oxley Act.

2.29 Accounting Controls. The Company and its Subsidiaries maintain systems of "internal control over financial reporting" (as defined under Rules 13a-15 and 15d-15 under the Exchange Act Regulations) that comply with the requirements of the Exchange Act and have been designed by, or under the supervision of, their respective principal executive and principal financial officers, or persons performing similar functions, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including, but not limited to, internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company is not aware of any material weaknesses in its internal controls. The Company's auditors and the Audit Committee of the Board of Directors of the Company have been advised of: (i) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are known to the Company's management and that have adversely affected or are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and (ii) any fraud known to the Company's management, whether or not material, that involves management or other employees who have a significant role in the Company's internal controls over financial reporting.

2.30 No Investment Company Status. The Company is not and, after giving effect to the Offering and the application of the proceeds thereof as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will not be, required to register as an "investment company," as defined in the Investment Company Act of 1940, as amended.

2.31 No Labor Disputes. No labor dispute with the employees of the Company or any of its Subsidiaries exists or, to the knowledge of the Company, is imminent.

2.32 Intellectual Property Rights. The Company and each of its Subsidiaries owns or possesses, or has valid rights to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, inventions, trade secrets and similar right ("**Intellectual Property Rights**") necessary for the conduct of the business of the Company and its Subsidiaries as currently carried on and as described in the Registration Statement, the Pricing Disclosure Package, and the Prospectus. To the knowledge of the Company, no action or use by the Company or any of its Subsidiaries necessary for the conduct of its business as currently carried on and as described in the Registration Statement, Pricing Disclosure Package and the Prospectus will involve or give rise to any infringement of, or license of similar fees for, any Intellectual Property Rights of others. Neither the Company nor any of its Subsidiaries has received any notice alleging any such infringement, fee of conflict with asserted Intellectual Property Rights of others. Except as would not reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change (A) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any of the Intellectual Property Rights owned by the Company; (B) there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding, or claim by others challenging the rights of the Company in or to any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim, that would, individually or in the aggregate, together with any other claims in this Section 2.32, reasonably be expected to result in a Material Adverse Change; (C) the Intellectual Property Rights owned by the Company and, to the knowledge of the Company, the Intellectual Property Rights licensed to the Company have not been adjudged by a court of competent jurisdiction invalid or unenforceable, in whole or in part, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding, or claim by others challenging the validity or scope of any such Intellectual Property Rights, and the Company is unaware of any facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 2.32, reasonably be expected to result in a Material Adverse Change; (D) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding, or claim by others that the Company infringes, misappropriates or otherwise violates any Intellectual Property Rights or other proprietary rights of others, and the Company has not received any written notice of such claim and the Company is unaware of any other facts which would form a reasonable basis for any such claim that would, individually or in the aggregate, together with any other claims in this Section 2.32, reasonably be expected to result in a Material Adverse Change; and (E) to the Company's knowledge, no employee of the Company is in, or has ever been in, violation in any material respect of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company, or actions undertaken by the employee while employed with the Company and could reasonably be expected to result, individually or in the aggregate, in a Material Adverse Change. To the Company's knowledge, all material technical information developed by and belonging to the Company which has not been patented has been kept confidential. The Company is not a party to, or bound by, any options, licenses or agreements with respect to the Intellectual Property Rights of any other person or entity that are required to be set forth in the Registration Statement, the Pricing Disclosure Package, and the Prospectus and are not described therein. The Registration Statement, the Pricing Disclosure Package, and the Prospectus contain in all material respects the same description of the matters set forth on the preceding sentence. None of the technology employed by the Company has been obtained or is being used by the Company in violation of any contractual obligation binding on the Company or, to the Company's knowledge, any of its officers, directors, or employees, or otherwise in violation of the rights of any persons.

2.33 Taxes. Each of the Company and its Subsidiaries has filed all returns (as hereinafter defined) required to be filed with taxing authorities prior to the date hereof or has duly obtained extensions of time for the filing thereof. Each of the Company and its Subsidiaries has paid all taxes (as hereinafter defined) shown as due on such returns that were filed and has paid all taxes imposed on or assessed against the Company or such respective Subsidiary. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. Except as disclosed in writing to the Underwriters, (i) no issues have been raised (and

are currently pending) by any taxing authority in connection with any of the returns or taxes asserted as due from the Company or its Subsidiaries, and (ii) no waivers of statutes of limitation with respect to the returns or collection of taxes have been given by or requested from the Company or its Subsidiaries. The term “taxes” means all federal, state, local, foreign and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments or charges of any kind whatever, together with any interest and any penalties, additions to tax or additional amounts with respect thereto. The term “returns” means all returns, declarations, reports, statements and other documents required to be filed in respect to taxes.

2.34 ERISA Compliance. The Company and any “employee benefit plan” (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, “ERISA”)) established or maintained by the Company or its “ERISA Affiliates” (as defined below) are in compliance in all material respects with ERISA. “ERISA Affiliate” means, with respect to the Company, any member of any group of organizations described in Sections 414(b),(c),(m) or (o) of the Internal Revenue Code of 1986, as amended, and the regulations and published interpretations thereunder (the “Code”) of which the Company is a member. No “reportable event” (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any “employee benefit plan” established or maintained by the Company or any of its ERISA Affiliates. No “employee benefit plan” established or maintained by the Company or any of its ERISA Affiliates, if such “employee benefit plan” were terminated, would have any “amount of unfunded benefit liabilities” (as defined under ERISA). Neither the Company nor any of its ERISA Affiliates has incurred or reasonably expects to incur any material liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan” or (ii) Sections 412, 4971, 4975 or 4980B of the Code. Each “employee benefit plan” established or maintained by the Company or any of its ERISA Affiliates that is intended to be qualified under Section 401(a) of the Code is so qualified and, to the knowledge of the Company, nothing has occurred, whether by action or failure to act, which would cause the loss of such qualification.

2.35 Compliance with Laws. The Company: (A) is and at all times has been in compliance with all statutes, rules, or regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company (“Applicable Laws”), except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change; (B) has not received any warning letter, untitled letter or other correspondence or notice from any other governmental authority alleging or asserting noncompliance with any Applicable Laws or any licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Applicable Laws (“Authorizations”); (C) possesses all material Authorizations and such Authorizations are valid and in full force and effect and are not in material violation of any term of any such Authorizations; (D) has not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (E) has not received notice that any governmental authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such governmental authority is considering such action; (F) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct on the date filed (or were corrected or supplemented by a subsequent submission); and (G) has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post-sale warning, “dear doctor” letter, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company’s knowledge, no third party has initiated, conducted or intends to initiate any such notice or action.

2.36 Ineligible Issuer. At the time of filing the Registration Statement and any post-effective amendment thereto, at the time of effectiveness of the Registration Statement and any amendment thereto, at the earliest time thereafter that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2) of the Securities Act Regulations) of the Public Securities and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined in Rule 405, without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an ineligible issuer.

2.37 Real Property. Except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company and its Subsidiaries have good and marketable title in fee simple to, or have valid rights to lease or otherwise use, all items of real or personal property which are material to the business of the Company and each of its Subsidiaries taken as a whole, in each case free and clear of all liens, encumbrances, security interests, claims and defects that do not, singly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any of its Subsidiaries; and all of the leases and subleases material to the business of the Company and its Subsidiaries, considered as one enterprise, and under which the Company or any of its Subsidiaries holds properties described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, are in full force and effect, and neither the Company nor any Subsidiary has received any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any Subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or such Subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

2.38 Contracts Affecting Capital. There are no transactions, arrangements or other relationships between and/or among the Company, any of its affiliates (as such term is defined in Rule 405 of the Securities Act Regulations) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company’s or and of its Subsidiaries’ liquidity or the availability of or requirements for their capital resources required to be described or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus which have not been described or incorporated by reference as required.

2.39 Loans to Directors or Officers. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company or any of its Subsidiaries to or for the benefit of any of the officers or directors of the Company, or any of its Subsidiaries or any of their respective family members, except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

2.40 Smaller Reporting Company. As of the time of filing of the Registration Statement, the Company was a “smaller reporting company,” as defined in Rule 12b-2 of the Exchange Act Regulations.

2.41 Industry Data. The statistical and market-related data included in each of the Registration Statement, the Pricing Disclosure Package and the Prospectus are based on or derived from sources that the Company reasonably and in good faith believes are reliable and accurate or represent the Company’s good faith estimates that are made on the basis of data derived from such sources.

2.42 Reverse Stock Split. The Company has taken all necessary corporate action to effectuate a reverse stock split of its shares of Common Stock on the basis of one (1) such share for each thirty (30) issued and outstanding shares thereof (the “Reverse Stock Split”), which Reverse Stock Split became effective on June 5, 2017.

2.43 Intentionally Omitted.

2.44 Testing-the-Waters Communications. The Company has not (i) alone engaged in any Testing-the-Waters Communications, other than Testing-the-Waters Communications with the written consent of the Representative and with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act and (ii) [authorized anyone other than the Representative to engage in Testing-the-Waters Communications]. The Company confirms that the Representative has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications other than those listed on Schedule 2-C hereto. “Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act.

2.45 Electronic Road Show. The Company has made available a Bona Fide Electronic Road Show in compliance with Rule 433(d)(8)(ii) of the Securities Act Regulations such that no filing of any “road show” (as defined in Rule 433(h) of the Securities Act Regulations) is required in connection with the Offering.

2.46 Margin Securities. The Company owns no “margin securities” as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the “Federal Reserve Board”), and none of the proceeds of Offering will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the shares of Common Stock to be considered a “purpose credit” within the meanings of Regulation T, U or X of the Federal Reserve Board.

3. Covenants of the Company. The Company covenants and agrees as follows:

3.1 Amendments to Registration Statement. The Company shall deliver to the Representative, prior to filing, any amendment or supplement to the Registration Statement or Prospectus proposed to be filed after the Effective Date and not file any such amendment or supplement to which the Representative shall reasonably object in writing.

3.2 Federal Securities Laws.

3.2.1 Compliance. The Company, subject to Section 3.2.2, shall comply with the requirements of Rule 430A of the Securities Act Regulations, and will notify the Representative promptly, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective or any amendment or supplement to the Prospectus shall have been filed; (ii) of the receipt of any comments from the Commission; (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or for additional information; (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment or of any order preventing or suspending the use of any Preliminary Prospectus or the Prospectus, or of the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes or of any examination pursuant to Section 8(d) or 8(e) of the Securities Act concerning the Registration Statement and (v) if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the Offering of the Public Securities. The Company shall effect all filings required under Rule 424(b) of the Securities Act Regulations, in the manner and within the time period required by Rule 424(b) (without reliance on Rule 424(b)(8)), and shall take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company shall use its best efforts to prevent the issuance of any stop order, prevention or suspension and, if any such order is issued, to obtain the lifting thereof at the earliest possible moment.

3.2.2 Continued Compliance. The Company shall comply with the Securities Act, the Securities Act Regulations, the Exchange Act and the Exchange Act Regulations so as to permit the completion of the distribution of the Public Securities as contemplated in this Agreement and in the Registration Statement, the Pricing Disclosure Package and the Prospectus. If at any time when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172 of the Securities Act Regulations (“Rule 172”), would be) required by the Securities Act to be delivered in connection with sales of the Public Securities, any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to (i) amend the Registration Statement in order that the Registration Statement will not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; (ii) amend or supplement the Pricing Disclosure Package or the Prospectus in order that the Pricing Disclosure Package or the Prospectus, as the case may be, will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser or (iii) amend the Registration Statement or amend or supplement the Pricing Disclosure Package or the Prospectus, as the case may be, in order to comply with the requirements of the Securities Act or the Securities Act Regulations, the Company will promptly (A) give the Representative notice of such event; (B) prepare any amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement, the Pricing Disclosure Package or the Prospectus comply with such requirements and, a reasonable amount of time prior to any proposed filing or use, furnish the Representative with copies of any such amendment or supplement and (C) file with the Commission any such amendment or supplement; provided that the Company shall not file or use any such amendment or supplement to which the Representative or counsel for the Underwriters shall reasonably object. The Company will furnish to the Underwriters such number of copies of such amendment or supplement as the Underwriters may reasonably request. The Company has given the Representative notice of any filings made pursuant to the Exchange Act or the Exchange Act Regulations within 48 hours prior to the Applicable Time. The Company shall give the Representative notice of its intention to make any such filing from the Applicable Time until the later of the Closing Date and the exercise in full or expiration of the Over-allotment Option specified in Section 1.2 hereof and will furnish the Representative with copies of the related document(s) a reasonable amount of time prior to such proposed filing, as the case may be, and will not file or use any such document to which the Representative or counsel for the Underwriters shall reasonably object.

3.2.3 Exchange Act Registration. For a period of three (3) years after the date of this Agreement, the Company shall use its best efforts to maintain the registration of each of the Common Stock and Warrants under the Exchange Act. The Company shall not deregister any of the Common Stock or the Warrants under the Exchange Act without the prior written consent of the Representative.

3.2.4 Free Writing Prospectuses. The Company agrees that, unless it obtains the prior written consent of the Representative, it shall not make any offer relating to the Public Securities that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a “free writing prospectus,” or a portion thereof, required to be filed by the Company with the Commission or retained by the Company under Rule 433; provided that the Representative shall be deemed to have consented to each Issuer General Use Free Writing Prospectus hereto and any “road show that is a written communication” within the meaning of Rule 433(d)(8)(i) that has been reviewed by the Representative. The Company represents that it has treated or agrees that it will treat each such free writing prospectus consented to, or deemed consented to, by the Underwriters as an “issuer free writing prospectus,” as defined in Rule 433, and that it has complied and will comply with the applicable requirements of Rule 433 with respect thereto, including timely filing with the Commission where required, legending and record keeping. If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Underwriters and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

3.2.5 Testing-the-Waters Communications. If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company shall promptly notify the Representative and shall promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

3.3 Delivery to the Underwriters of Registration Statements. The Company has delivered or made available or shall deliver or make available to the Representative and counsel for the Representative, without charge, signed copies of the Registration Statement as originally filed and each amendment thereto (including exhibits filed therewith) and signed copies of all consents and certificates of experts, and will also deliver to the Underwriters, without charge, a conformed copy of the Registration Statement as originally filed and each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

3.4 Delivery to the Underwriters of Prospectuses. The Company has delivered or made available or will deliver or make available to each Underwriter, without charge, as many copies of each Preliminary Prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the Securities Act. The Company will furnish to each Underwriter, without charge, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, such number of copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

3.5 Effectiveness and Events Requiring Notice to the Representative. The Company shall use its best efforts to cause the Registration Statement to remain effective with a current prospectus for at least nine (9) months after the Applicable Time, and shall notify the Representative immediately and confirm the notice in writing: (i) of the effectiveness of the Registration Statement and any amendment thereto; (ii) of the issuance by the Commission of any stop order or of the initiation, or the threatening, of any proceeding for that purpose; (iii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iv) of the mailing and delivery to the Commission for filing of any amendment or supplement to the Registration Statement or Prospectus; (v) of the receipt of any comments or request for any additional information from the Commission; and (vi) of the happening of any event during the period described in this Section 3.5 that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement, the Pricing Disclosure Package or the Prospectus untrue or that requires the making of any changes in (a) the Registration Statement in order to make the statements therein not misleading, or (b) in the Pricing Disclosure Package or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company shall make every reasonable effort to obtain promptly the lifting of such order.

3.6 Review of Financial Statements. For a period of five (5) years after the date of this Agreement, the Company, at its expense, shall cause its regularly engaged independent registered public accounting firm to review (but not audit) the Company's financial statements for each of the three fiscal quarters immediately preceding the announcement of any quarterly financial information.

3.7 Listing. The Company shall use its reasonable best efforts to maintain the listing of each of the Common Stock and the Warrants (including the Public Securities) on the Exchange for at least three years from the date of this Agreement.

3.8 Financial Public Relations Firm. As of the Effective Date, the Company shall have retained a financial public relations firm reasonably acceptable to the Representative and the Company, which shall initially be RedChip Companies, which firm is experienced in assisting issuers in initial public offerings of securities and in their relations with their security holders, and shall retain such firm or another firm reasonably acceptable to the Representative for a period of not less than two (2) years after the Effective Date.

3.9 Reports to the Representative.

3.9.1 Periodic Reports, etc. For a period of three (3) years after the date of this Agreement, the Company shall furnish or make available to the Representative copies of such financial statements and other periodic and special reports as the Company from time to time furnishes generally to holders of any class of its securities and also promptly furnish to the Representative: (i) a copy of each periodic report the Company shall be required to file with the Commission under the Exchange Act and the Exchange Act Regulations; (ii) a copy of every press release and every news item and article with respect to the Company or its affairs which was released by the Company; (iii) a copy of each Form 8-K prepared and filed by the Company; (iv) five copies of each registration statement filed by the Company under the Securities Act; and (v) such additional documents and information with respect to the Company and the affairs of any future subsidiaries of the Company as the Representative may from time to time reasonably request; provided the Representative shall sign, if requested by the Company, a Regulation FD compliant confidentiality agreement which is reasonably acceptable to the Representative and Representative Counsel in connection with the Representative's receipt of such information. Documents filed with the Commission pursuant to its EDGAR system shall be deemed to have been delivered to the Representative pursuant to this Section 3.9.1.

3.9.2 Transfer Agent; Transfer Sheets. For a period of three (3) years after the date of this Agreement, the Company shall retain a transfer agent and registrar acceptable to the Representative (the "Transfer Agent") and shall furnish to the Representative at the Company's sole cost and expense such transfer sheets of the Company's securities as the Representative may reasonably request, including the daily and monthly consolidated transfer sheets of the Transfer Agent and DTC. Computershare Trust Company is acceptable to the Representative to act as Transfer Agent for the shares of Common Stock.

3.9.3 Trading Reports. During such time as the Public Securities are listed on the Exchange, the Company shall provide to the Representative, at the Company's expense, such reports published by Exchange relating to price trading of the Public Securities, as the Representative shall reasonably request.

3.10 Payment of Expenses.

3.10.1 General Expenses Related to the Offering. The Company hereby agrees to pay on each of the Closing Date and the Option Closing Date, if any, to the extent not paid at the Closing Date, all expenses incident to the performance of the obligations of the Company under this Agreement, including, but not limited to: (a) all filing fees and communication expenses relating to the registration of the Public Securities with the Commission; (b) all Public Filing System filing fees associated with the review of the Offering by FINRA; (c) all fees and expenses relating to the listing of such Common Stock and Warrants on the Exchange and such other stock exchanges as the Company and the Representative together determine; (d) all fees, expenses and disbursements relating to background checks of the Company's officers and directors in an amount not to exceed \$15,000 in the aggregate; (e) all fees, expenses and disbursements relating to the registration or qualification of the Public Securities under the "blue sky" securities laws of such states and other jurisdictions as the Representative may reasonably designate (including, without limitation, all filing and registration fees, it being agreed that if the Offering is commenced on the Exchange, the Company shall make a payment of \$5,000 to such counsel at Closing, or if the Offering is commenced on the Over-The-Counter Bulletin Board, the Company shall make a payment of \$15,000 to such counsel upon the commencement of "blue sky" work by such counsel and an additional \$5,000 at Closing); (f) all fees, expenses and disbursements relating to the registration, qualification or exemption of the Public Securities under the securities laws of such foreign jurisdictions as the Representative may reasonably designate; (g) the costs of all mailing and printing of the underwriting documents (including, without limitation, the Underwriting Agreement, any Blue Sky Surveys and, if appropriate, any Agreement Among Underwriters, Selected Dealers' Agreement, Underwriters' Questionnaire and Power of Attorney), Registration Statements, Prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final Prospectuses as the Representative may reasonably deem necessary; (h) the costs and expenses of a public relations firm; (i) the costs of preparing, printing and delivering certificates representing the Public Securities; (j) fees and expenses of the Transfer Agent for the shares of Common Stock; (k) stock transfer and/or stamp taxes, if any, payable upon the transfer of securities from the Company to the Underwriters; (l) to the extent approved by the Company in writing, the costs associated with post-Closing advertising the Offering in the national editions of the Wall Street Journal and New York Times; (m) the costs associated with one set of bound volumes of the public offering materials as well as commemorative mementos and lucite tombstones, each of which the Company or its designee shall provide within a reasonable time after the Closing Date in such quantities as the Representative may reasonably request not to exceed \$2,000; (n) the fees and expenses of the Company's accountants; (o) the fees and expenses of the Company's legal counsel and other agents and representatives; (p) fees and expenses of the Representative's legal counsel not to exceed \$75,000; (q) the \$29,500 cost associated with the Underwriter's use of Ipreo's book-building, prospectus tracking and compliance software for the Offering; and (r) up to \$20,000 of the Underwriters' actual accountable "road show" expenses for the Offering. The Representative may deduct from the net proceeds of the Offering payable to the Company on the Closing Date, or the Option Closing Date, if any, the expenses set forth herein to be paid by the Company to the Underwriters, less the Advance as such term is defined herein.

3.10.2 Non-accountable Expenses. The Company further agrees that, in addition to the expenses payable pursuant to Section 3.10.1, on the Closing Date it shall pay to the Representative, by deduction from the net proceeds of the Offering contemplated herein, a non-accountable expense allowance equal to one percent (1%) of the gross proceeds received by the Company from the sale of the Firm Securities (excluding the Option Securities), provided, however, that in the event that the Offering is terminated, the Company agrees to reimburse the Underwriters pursuant to Section 8.3 hereof.

3.11 Application of Net Proceeds. The Company shall apply the net proceeds from the Offering received by it in a manner consistent with the application thereof described under the caption “Use of Proceeds” in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

3.12 Delivery of Earnings Statements to Security Holders. The Company shall make generally available to its security holders as soon as practicable, but not later than the first day of the fifteenth (15th) full calendar month following the date of this Agreement, an earnings statement (which need not be certified by an independent registered public accounting firm unless required by the Securities Act or the Securities Act Regulations, but which shall satisfy the provisions of Rule 158(a) under Section 11(a) of the Securities Act) covering a period of at least twelve (12) consecutive months beginning after the date of this Agreement.

3.13 Stabilization. Neither the Company nor, to its knowledge, any of its employees, directors or shareholders (without the consent of the Representative) has taken or shall take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under Regulation M of the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities.

3.14 Internal Controls. The Company shall maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management’s general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

3.15 Accountants. As of the date of this Agreement, the Company shall retain an independent registered public accounting firm reasonably acceptable to the Representative, and the Company shall continue to retain a nationally recognized independent registered public accounting firm for a period of at least three (3) years after the date of this Agreement. The Representative acknowledges that the Auditor is acceptable to the Representative.

3.16 FINRA. The Company shall advise the Representative (who shall make an appropriate filing with FINRA) if it is or becomes aware that (i) any officer or director of the Company, (ii) any beneficial owner of 5% or more of any class of the Company’s securities or (iii) any beneficial owner of the Company’s unregistered equity securities which were acquired during the 180 days immediately preceding the filing of the Registration Statement is or becomes an affiliate or associated person of a FINRA member participating in the Offering (as determined in accordance with the rules and regulations of FINRA).

3.17 No Fiduciary Duties. The Company acknowledges and agrees that the Underwriters’ responsibility to the Company is solely contractual in nature and that none of the Underwriters or their affiliates or any selling agent shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement.

3.18 Company Lock-Up Agreements.

3.18.1 Restriction on Sales of Capital Stock. The Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of 90 days after the date of this Agreement (the "Lock-Up Period"), (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (ii) file or caused to be filed any registration statement with the Commission relating to the offering by the Company of any shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company; (iii) complete any offering of debt securities of the Company, other than entering into a line of credit with a traditional bank; or (iv) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of capital stock of the Company, whether any such transaction described in clause (i), (ii), (iii), or (iv) above is to be settled by delivery of shares of capital stock of the Company or such other securities, in cash or otherwise.

The restrictions contained in this Section 3.18.1 shall not apply to (i) the Public Securities to be sold hereunder (including the underlying shares of Common Stock and Warrants, (ii) the issuance by the Company of shares of Common Stock upon the exercise of a stock option or warrant or the conversion of a security outstanding on the date hereof, of which the Representative has been advised in writing or (iii) the issuance by the Company of stock options or shares of capital stock of the Company under any equity compensation plan of the Company, provided that in each of (ii) and (iii) above, the underlying shares shall be restricted from sale during the entire Lock-Up Period.

Notwithstanding the foregoing, if (i) during the last 17 days of the Lock-Up Period, the Company issues an earnings release or material news or a material event relating to the Company occurs, or (ii) prior to the expiration of the Lock-Up Period, the Company announces that it will release earnings results or becomes aware that material news or a material event will occur during the 16-day period beginning on the last day of the Lock-Up Period, the restrictions imposed by this Section 3.18.1 shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of such material news or material event, as applicable, unless the Representative waives, in writing, such extension; provided, however, that this extension of the Lock-Up Period shall not apply to the extent that FINRA has amended or repealed NASD Rule 2711(f)(4), or has otherwise provided written interpretive guidance regarding such rule, in each case, so as to eliminate the prohibition of any broker, dealer, or member of a national securities association from publishing or distributing any research report, with respect to the securities of an Emerging Growth Company prior to or after the expiration of any agreement between the broker, dealer, or member of a national securities association and the Emerging Growth Company or its shareholders that restricts or prohibits the sale of securities held by the Emerging Growth Company or its shareholders after the initial public offering date.

3.18.2 Restriction on Continuous Offerings. Notwithstanding the restrictions contained in Section 3.18.1, the Company, on behalf of itself and any successor entity, agrees that, without the prior written consent of the Representative, it will not, for a period of 12 months after the date of this Agreement, directly or indirectly in any "at-the-market" or continuous equity transaction, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of shares of capital stock of the Company or any securities convertible into or exercisable or exchangeable for shares of capital stock of the Company.

3.19 Release of D&O Lock-up Period. If the Representative, in its sole discretion, agrees to release or waive the restrictions set forth in the Lock-Up Agreements described in Section 2.24 hereof for an officer or director of the Company and provide the Company with notice of the impending release or waiver at least three (3) Business Days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit C hereto through a major news service at least two (2) Business Days before the effective date of the release or waiver.

3.20 Blue Sky Qualifications. The Company shall use its best efforts, in cooperation with the Underwriters, if necessary, to qualify the Public Securities for offering and sale under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Representative may designate and to maintain such qualifications in effect so long as required to complete the distribution of the Public Securities; provided, however, that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject.

3.21 Reporting Requirements. The Company, during the period when a prospectus relating to the Public Securities is (or, but for the exception afforded by Rule 172, would be) required to be delivered under the Securities Act, will file all documents required to be filed with the Commission pursuant to the Exchange Act within the time periods required by the Exchange Act and Exchange Act Regulations. Additionally, the Company shall report the use of proceeds from the issuance of the Public Securities as may be required under Rule 463 under the Securities Act Regulations.

3.22 Reserved.

4. Conditions of Underwriters' Obligations. The obligations of the Underwriters to purchase and pay for the Securities, as provided herein, shall be subject to (i) the continuing accuracy of the representations and warranties of the Company as of the date hereof and as of each of the Closing Date and the Option Closing Date, if any; (ii) the accuracy of the statements of officers of the Company made pursuant to the provisions hereof; (iii) the performance by the Company of its obligations hereunder; and (iv) the following conditions:

4.1 Regulatory Matters.

4.1.1 Effectiveness of Registration Statement; Rule 430A Information. The Registration Statement has become effective not later than 5:00 p.m., Eastern time, on the date of this Agreement or such later date and time as shall be consented to in writing by you, and, at each of the Closing Date and any Option Closing Date, no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the Securities Act, no order preventing or suspending the use of any Preliminary Prospectus or the Prospectus has been issued and no proceedings for any of those purposes have been instituted or are pending or, to the Company's knowledge, contemplated by the Commission. The Company has complied with each request (if any) from the Commission for additional information. The Prospectus containing the Rule 430A Information shall have been filed with the Commission in the manner and within the time frame required by Rule 424(b) (without reliance on Rule 424(b)(8)) or a post-effective amendment providing such information shall have been filed with, and declared effective by, the Commission in accordance with the requirements of Rule 430A.

4.1.2 FINRA Clearance. On or before the date of this Agreement, the Representative shall have received clearance from FINRA as to the amount of compensation allowable or payable to the Underwriters as described in the Registration Statement.

4.1.3 Exchange Stock Market Clearance. On the Closing Date, each of the Company's Public Securities shall have been approved for listing on the Exchange, subject only to official notice of issuance. On the first Option Closing Date (if any), the Company's Public Securities shall have been approved for listing on the Exchange, subject only to official notice of issuance.

4.2 Company Counsel Matters.

4.2.1 Closing Date Opinion of Counsel. On the Closing Date, the Representative shall have received the favorable opinion of Lucosky Brookman LLP, counsel to the Company, dated the Closing Date and addressed to the Representative, substantially in the form of Exhibit D attached hereto.

4.2.2 Opinion of Special Intellectual Property Counsel for the Company. On the Closing Date, the Representative shall have received the opinion of [IP COUNSEL NAME], special intellectual property counsel for the Company, dated the Closing Date, addressed to the Representative substantially in the form of Exhibit E attached hereto.

4.2.3 Option Closing Date Opinions of Counsel. On the Option Closing Date, if any, the Representative shall have received the favorable opinions of each counsel listed in Sections 4.2.1 and 4.2.2, dated the Option Closing Date, addressed to the Representative and in form and substance reasonably satisfactory to the Representative, confirming as of the Option Closing Date, the statements made by such counsels in their respective opinions delivered on the Closing Date.

4.2.4 Reliance. In rendering such opinions, such counsel may rely: (i) as to matters involving the application of laws other than the laws of the United States and jurisdictions in which they are admitted, to the extent such counsel deems proper and to the extent specified in such opinion, if at all, upon an opinion or opinions (in form and substance reasonably satisfactory to the Representative) of other counsel reasonably acceptable to the Representative, familiar with the applicable laws; and (ii) as to matters of fact, to the extent they deem proper, on certificates or other written statements of officers of the Company and officers of departments of various jurisdictions having custody of documents respecting the corporate existence or good standing of the Company, provided that copies of any such statements or certificates shall be delivered to Representative Counsel if requested. The opinion of Lucosky Brookman LLP and any opinion relied upon by Lucosky Brookman LLP shall include a statement to the effect that it may be relied upon by Representative Counsel in its opinion delivered to the Underwriters.

4.3 Comfort Letters.

4.3.1 Cold Comfort Letter. At the time this Agreement is executed the Representative shall have received a cold comfort letter containing statements and information of the type customarily included in accountants' comfort letters with respect to the financial statements and certain financial information contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus, addressed to the Representative and in form and substance satisfactory in all material respects to the Representative and to the Auditor, dated as of the date of this Agreement.

4.3.2 Bring-down Comfort Letter. At each of the Closing Date and the Option Closing Date, if any, the Representative shall have received from the Auditor a letter, dated as of the Closing Date or the Option Closing Date, as applicable, to the effect that the Auditor reaffirms the statements made in the letter furnished pursuant to Section 4.3.1, except that the specified date referred to shall be a date not more than three (3) business days prior to the Closing Date or the Option Closing Date, as applicable.

4.4 Officers' Certificates.

4.4.1 Officers' Certificate. The Company shall have furnished to the Representative a certificate, dated the Closing Date and any Option Closing Date (if such date is other than the Closing Date), of its Chief Executive Officer, its President and its Chief Financial Officer stating that (i) such officers have carefully examined the Registration Statement, the Pricing Disclosure Package, any Issuer Free Writing Prospectus and the Prospectus and, in their opinion, the Registration Statement and each amendment thereto, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date) did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the Pricing Disclosure Package, as of the Applicable Time and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), any Issuer Free Writing Prospectus as of its date and as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date, did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus, (iii) to the best of their knowledge after reasonable investigation, as of the Closing Date (or any Option Closing Date if such date is other than the Closing Date), the representations and warranties of the Company in this Agreement are true and correct and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date (or any Option Closing Date if such date is other than the Closing Date), and (iv) there has not been, subsequent to the date of the most recent audited financial statements included or incorporated by reference in the Pricing Disclosure Package, any material adverse change in the financial position or results of operations of the Company, or any change or development that, singularly or in the aggregate, would involve a material adverse change or a prospective material adverse change, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company, except as set forth in the Prospectus.

4.4.2 Secretary's Certificate. At each of the Closing Date and the Option Closing Date, if any, the Representative shall have received a certificate of the Company signed by the Secretary of the Company, dated the Closing Date or the Option Date, as the case may be, respectively, certifying: (i) that each of the Charter and Bylaws is true and complete, has not been modified and is in full force and effect; (ii) that the resolutions of the Company's Board of Directors relating to the Offering are in full force and effect and have not been modified; (iii) as to the accuracy and completeness of all correspondence between the Company or its counsel and the Commission; and (iv) as to the incumbency of the officers of the Company. The documents referred to in such certificate shall be attached to such certificate.

4.5 No Material Changes. Prior to and on each of the Closing Date and each Option Closing Date, if any: (i) there shall have been no material adverse change or development involving a prospective material adverse change in the condition or prospects or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (ii) no action, suit or proceeding, at law or in equity, shall have been pending or threatened against the Company or any Insider before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding may materially adversely affect the business, operations, prospects or financial condition or income of the Company, except as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus; (iii) no stop order shall have been issued under the Securities Act and no proceedings therefor shall have been initiated or threatened by the Commission; and (iv) the Registration Statement, the Pricing Disclosure Package and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the Securities Act Regulations and shall conform in all material respects to the requirements of the Securities Act and the Securities Act Regulations, and neither the Registration Statement, the Pricing Disclosure Package nor the Prospectus nor any amendment or supplement thereto shall contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

4.6 Delivery of Agreements.

4.6.1 Lock-Up Agreements. On or before the date of this Agreement, the Company shall have delivered to the Representative executed copies of the Lock-Up Agreements from each of the persons and entities listed in Schedule 3 hereto.

4.6.2 Representative's Warrant. On the Closing Date, the Company shall have delivered to the Representative executed copies of the Representative's Warrant.

4.7 Additional Documents. At the Closing Date and at each Option Closing Date (if any) Representative Counsel shall have been furnished with such documents and opinions as they may require for the purpose of enabling Representative Counsel to deliver an opinion to the Underwriters, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, herein contained; and all proceedings taken by the Company in connection with the issuance and sale of the Public Securities and the Representative's Securities as herein contemplated shall be satisfactory in form and substance to the Representative and Representative Counsel.

4.8 Reverse Stock Split. As of the date hereof, the Reverse Stock Split has been effective.

5. Indemnification.

5.1 Indemnification of the Underwriters.

5.1.1 General. Subject to the conditions set forth below, the Company agrees to indemnify and hold harmless each Underwriter, its affiliates and each of its and their respective directors, officers, members, employees, representatives, partners, shareholders, affiliates, counsel, and agents and each person, if any, who controls any such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively the "Underwriter Indemnified Parties," and each an "Underwriter Indemnified Party"), against any and all loss, liability, claim, damage and expense whatsoever (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between any of the Underwriter Indemnified Parties and the Company or between any of the Underwriter Indemnified Parties and any third party, or otherwise) to which they or any of them may become subject under the Securities Act, the Exchange Act or any other statute or at common law or otherwise or under the laws of foreign countries (a "Claim"), (i) arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in (A) the Registration Statement, the Pricing Disclosure Package, any Preliminary Prospectus, the Prospectus, or in any Issuer Free Writing Prospectus or in any Written Testing-the-Waters Communication (as from time to time each may be amended and supplemented); (B) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the Offering, including any "road show" or investor presentations made to investors by the Company (whether in person or electronically); or (C) any application or other document or written communication (in this Section 5, collectively called "application") executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Public Securities and Representative's Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, the Exchange or any other national securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, unless such statement or omission was made in reliance upon, and in conformity with, the Underwriters' Information or (ii) otherwise arising in connection with or allegedly in connection with the Offering. The Company also agrees that it will reimburse each Underwriter Indemnified Party for all fees and expenses (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between any of the Underwriter Indemnified Parties and the Company or between any of the Underwriter Indemnified Parties and any third party, or otherwise) (collectively, the "Expenses"), and further agrees wherever and whenever possible to advance payment of Expenses as they are incurred by an Underwriter Indemnified Party in investigating, preparing, pursuing or defending any Claim.

5.1.2 Procedure. If any action is brought against an Underwriter Indemnified Party in respect of which indemnity may be sought against the Company pursuant to Section 5.1.1, such Underwriter Indemnified Party shall promptly notify the Company in writing of the institution of such action and the Company shall assume the defense of such action, including the employment and fees of counsel (subject to the approval of such Underwriter Indemnified Party) and payment of actual expenses if an Underwriter Indemnified Party requests that the Company do so. Such Underwriter Indemnified Party shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of the Company, and shall be advanced by the Company. The Company shall not be liable for any settlement of any action effected without its consent (which shall not be unreasonably withheld). In addition, the Company shall not, without the prior written consent of the Underwriters, settle, compromise or consent to the entry of any judgment in or otherwise seek to terminate any pending or threatened action in respect of which advancement, reimbursement, indemnification or contribution may be sought hereunder (whether or not such Underwriter Indemnified Party is a party thereto) unless such settlement, compromise, consent or termination (i) includes an unconditional release of each Underwriter Indemnified Party, acceptable to such Underwriter Indemnified Party, from all liabilities, expenses and claims arising out of such action for which indemnification or contribution may be sought and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any Underwriter Indemnified Party.

5.2 Indemnification of the Company. Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its directors, its officers who signed the Registration Statement and persons who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the foregoing indemnity from the Company to the several Underwriters, as incurred, but only with respect to untrue statements or omissions or alleged untrue statements or omissions made in the Registration Statement, any Preliminary Prospectus, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or in any application, in reliance upon, and in strict conformity with, the Underwriters' Information. In case any action shall be brought against the Company or any other person so indemnified based on any Preliminary Prospectus, the Registration Statement, the Pricing Disclosure Package or Prospectus or any amendment or supplement thereto or any application, and in respect of which indemnity may be sought against any Underwriter, such Underwriter shall have the rights and duties given to the Company, and the Company and each other person so indemnified shall have the rights and duties given to the several Underwriters by the provisions of Section 5.1.2. The Company agrees promptly to notify the Representative of the commencement of any litigation or proceedings against the Company or any of its officers, directors or any person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, in connection with the issuance and sale of the Public Securities or in connection with the Registration Statement, the Pricing Disclosure Package, the Prospectus, or any Issuer Free Writing Prospectus or any Written Testing-the-Waters Communication.

5.3 Contribution.

5.3.1 Contribution Rights. If the indemnification provided for in this Section 5 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 5.1 or 5.2 in respect of any loss, claim, damage or liability, or any action in respect thereof, referred to therein, then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability, or action in respect thereof, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other, from the Offering of the Public Securities, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions that resulted in such loss, claim, damage or liability, or action in respect thereof, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other, with respect to such Offering shall be deemed to be in the same proportion as the total net proceeds from the Offering of the Public Securities purchased under this Agreement (before deducting expenses) received by the Company, as set forth in the table on the cover page of the Prospectus, on the one hand, and the total underwriting discounts and commissions received by the Underwriters with respect to the shares of the Common Stock purchased under this Agreement, as set forth in the table on the cover page of the Prospectus on the other hand. The relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 5.3.1 were to be determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage or liability, or action in respect thereof, referred to above in this Section 5.3.1 shall be deemed to include, for purposes of this Section 5.3.1, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 5.3.1 in no event shall an Underwriter be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by such Underwriter with respect to the Offering of the Public Securities exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

5.3.2 Contribution Procedure. Within fifteen (15) days after receipt by any party to this Agreement (or its representative) of notice of the commencement of any action, suit or proceeding, such party will, if a claim for contribution in respect thereof is to be made against another party (“contributing party”), notify the contributing party of the commencement thereof, but the failure to so notify the contributing party will not relieve it from any liability which it may have to any other party other than for contribution hereunder. In case any such action, suit or proceeding is brought against any party, and such party notifies a contributing party or its representative of the commencement thereof within the aforesaid 15 days, the contributing party will be entitled to participate therein with the notifying party and any other contributing party similarly notified. Any such contributing party shall not be liable to any party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution without the written consent of such contributing party. The contribution provisions contained in this Section 5.3.2 are intended to supersede, to the extent permitted by law, any right to contribution under the Securities Act, the Exchange Act or otherwise available. Each Underwriter’s obligations to contribute pursuant to this Section 5.3 are several and not joint.

6. Default by an Underwriter.

6.1 Default Not Exceeding 10% of Firm Securities or Option Securities. If any Underwriter or Underwriters shall default in its or their obligations to purchase the Firm Securities or the Option Securities, if the Over-allotment Option is exercised hereunder, and if the number of the Firm Securities or Option Securities with respect to which such default relates does not exceed in the aggregate 10% of the number of Firm Securities or Option Securities that all Underwriters have agreed to purchase hereunder, then such Firm Securities or Option Securities to which the default relates shall be purchased by the non-defaulting Underwriters in proportion to their respective commitments hereunder.

6.2 Default Exceeding 10% of Firm Securities or Option Securities. In the event that the default addressed in Section 6.1 relates to more than 10% of the Firm Securities or Option Securities, you may in your discretion arrange for yourself or for another party or parties to purchase such Firm Securities or Option Securities to which such default relates on the terms contained herein. If, within one (1) Business Day after such default relating to more than 10% of the Firm Securities or Option Securities, you do not arrange for the purchase of such Firm Securities or Option Securities, then the Company shall be entitled to a further period of one (1) Business Day within which to procure another party or parties satisfactory to you to purchase said Firm Securities or Option Securities on such terms. In the event that neither you nor the Company arrange for the purchase of the Firm Securities or Option Securities to which a default relates as provided in this Section 6, this Agreement will automatically be terminated by you or the Company without liability on the part of the Company (except as provided in Sections 3.9 and 5 hereof) or the several Underwriters (except as provided in Section 5 hereof); provided, however, that if such default occurs with respect to the Option Securities, this Agreement will not terminate as to the Firm Securities; and provided, further, that nothing herein shall relieve a defaulting Underwriter of its liability, if any, to the other Underwriters and to the Company for damages occasioned by its default hereunder.

6.3 Postponement of Closing Date. In the event that the Firm Securities or Option Securities to which the default relates are to be purchased by the non-defaulting Underwriters, or are to be purchased by another party or parties as aforesaid, you or the Company shall have the right to postpone the Closing Date or Option Closing Date for a reasonable period, but not in any event exceeding five (5) Business Days, in order to effect whatever changes may thereby be made necessary in the Registration Statement, the Pricing Disclosure Package or the Prospectus or in any other documents and arrangements, and the Company agrees to file promptly any amendment to the Registration Statement, the Pricing Disclosure Package or the Prospectus that in the opinion of counsel for the Underwriter may thereby be made necessary. The term "Underwriter" as used in this Agreement shall include any party substituted under this Section 6 with like effect as if it had originally been a party to this Agreement with respect to such Securities.

7. Additional Covenants.

7.1 Board Composition and Board Designations. The Company shall ensure that: (i) the qualifications of the persons serving as members of the Board of Directors and the overall composition of the Board comply with the Sarbanes-Oxley Act, with the Exchange Act and with the listing rules of the Exchange or any other national securities exchange, as the case may be, in the event the Company seeks to have any of its Public Securities listed on another exchange or quoted on an automated quotation system, and (ii) if applicable, at least one member of the Audit Committee of the Board of Directors qualifies as an "audit committee financial expert," as such term is defined under Regulation S-K and the listing rules of the Exchange.

7.2 Prohibition on Press Releases and Public Announcements. The Company shall not issue press releases or engage in any other publicity, without the Representative's prior written consent, for a period ending at 5:00 p.m., Eastern time, on the first (1st) Business Day following the forty-fifth (45th) day after the Closing Date, other than normal and customary releases issued in the ordinary course of the Company's business.

7.3 Right of First Refusal. Provided that the Firm Shares and Firm Warrants are sold in accordance with the terms of this Agreement, Joseph Gunnar & Co., LLC ("Joseph Gunnar") shall have an irrevocable right of first refusal (the "Right of First Refusal"), for a period of eighteen (18) Months after the date the Offering is completed, to act as sole investment banker, sole book-runner, and/or sole placement agent, at Joseph Gunnar's sole discretion, for each and every future public and private equity and debt offering, including all equity linked financings (each, a "Subject Transaction"), during such eighteen (18) month period, of the Company, or any successor to or future subsidiary of the Company, on terms and conditions customary to Joseph Gunnar for such Subject Transactions. Joseph Gunnar shall have the sole right to determine whether or not any other broker dealer shall have the right to participate in the Subject Transactions and the economic terms of the Subject Transactions. For the avoidance of any doubt, the Company shall not retain, engage or solicit any additional investment banker, book-runner, financial advisor, underwriter and/or placement agent in a Subject Transaction without the express written consent of Joseph Gunnar.

The Company shall notify the Representative of its intention to pursue a Subject Transaction, including the material terms thereof, by providing written notice thereof by registered mail or overnight courier service addressed to the Representative. If the Representative fails to exercise its Right of First Refusal with respect to any Subject Transaction within ten (10) Business Days after the mailing of such written notice, then the Representative shall have no further claim or right with respect to the Subject Transaction. The Representative may elect, in its sole and absolute discretion, not to exercise its Right of First Refusal with respect to any Subject Transaction; provided that any such election by the Representative shall not adversely affect the Representative's Right of First Refusal with respect to any other Subject Transaction during the eighteen (18) month period agreed to above.

8. Effective Date of this Agreement and Termination Thereof.

8.1 Effective Date. This Agreement shall become effective when both the Company and the Representative have executed the same and delivered counterparts of such signatures to the other party.

8.2 Termination. The Representative shall have the right to terminate this Agreement at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in your opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on the New York Stock Exchange or the Nasdaq Stock Market LLC shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other government authority having jurisdiction; or (iii) if the United States shall have become involved in a new war or an increase in major hostilities; or (iv) if a banking moratorium has been declared by a New York State or federal authority; or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets; or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in your opinion, make it inadvisable to proceed with the delivery of the Firm Securities or Option Securities; or (vii) if the Company is in material breach of any of its representations, warranties or covenants hereunder; or (viii) if the Representative shall have become aware after the date hereof of such a material adverse change in the conditions or prospects of the Company, or such adverse material change in general market conditions as in the Representative's judgment would make it impracticable to proceed with the offering, sale and/or delivery of the Public Securities or to enforce contracts made by the Underwriters for the sale of the Public Securities.

8.3 Expenses. Notwithstanding anything to the contrary in this Agreement, except in the case of a default by the Underwriters, pursuant to Section 6.2 above, in the event that this Agreement shall not be carried out for any reason whatsoever, within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Underwriters their actual and accountable out-of-pocket expenses related to the transactions contemplated herein then due and payable (including the fees and disbursements of Representative Counsel) up to \$100,000 inclusive of the \$25,000 advance for expenses previously paid by the Company to the Representative (the "Advance") and upon demand the Company shall pay the full amount thereof to the Representative on behalf of the Underwriters; provided, however, that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement. Notwithstanding the foregoing, any advance received by the Representative will be credited against actual out-of-pocket expenses and reimbursed to the Company to the extent not actually incurred in compliance with FINRA Rule 5110(f)(2)(C).

8.4 Indemnification. Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Section 5 shall remain in full force and effect and shall not be in any way affected by, such election or termination or failure to carry out the terms of this Agreement or any part hereof.

8.5 Representations, Warranties, Agreements to Survive. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company submitted pursuant hereto, shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or its Affiliates or selling agents, any person controlling any Underwriter, its officers or directors or any person controlling the Company or (ii) delivery of and payment for the Public Securities.

9. Miscellaneous.

9.1 Notices. All communications hereunder, except as herein otherwise specifically provided, shall be in writing and shall be mailed (registered or certified mail, return receipt requested), personally delivered or sent by facsimile transmission and confirmed and shall be deemed given when so delivered or faxed and confirmed or if mailed, two (2) days after such mailing.

If to the Representative:

Joseph Gunnar & Co., LLC
30 Broad Street, 11th Floor
New York, NY 10004
Attn: Mr. Eric Lord, Head of Investment Banking/Underwritings
Fax No.: (646) 461-2729

with a copy (which shall not constitute notice) to:

Loeb & Loeb LLP
345 Park Avenue
New York, NY 10154
Attn: Mitchell S. Nussbaum, Office Managing Partner
Fax No.: (212) 407-4990

If to the Company:

Pressure BioSciences, Inc.
14 Norfolk Avenue
South Easton, Massachusetts 02375
Attention: Richard T. Schumacher, President and Chief Executive Officer
Fax No: (508) 230-1829

with a copy (which shall not constitute notice) to:

Lucosky Brookman LLP
101 Wood Avenue South, 5th Floor
Woodbridge, NJ 08830
Attention: Joseph M. Lucosky, Esq.
Fax No: (732) 395-4401

9.2 Headings. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Agreement.

9.3 Amendment. This Agreement may only be amended by a written instrument executed by each of the parties hereto.

9.4 Entire Agreement. This Agreement (together with the other agreements and documents being delivered pursuant to or in connection with this Agreement) constitutes the entire agreement of the parties hereto with respect to the subject matter hereof and thereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof. Notwithstanding anything to the contrary set forth herein, it is understood and agreed by the parties hereto that all other terms and conditions of that certain engagement letter between the Company and Joseph Gunnar & Co., LLC., dated November 1, 2016 shall remain in full force and effect.

9.5 Binding Effect. This Agreement shall inure solely to the benefit of and shall be binding upon the Representative, the Underwriters, the Company and the controlling persons, directors and officers referred to in Section 5 hereof, and their respective successors, legal representatives, heirs and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Agreement or any provisions herein contained. The term "successors and assigns" shall not include a purchaser, in its capacity as such, of securities from any of the Underwriters.

9.6 Governing Law; Consent to Jurisdiction; Trial by Jury. This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of New York, without giving effect to conflict of laws principles thereof. The Company hereby agrees that any action, proceeding or claim against it arising out of, or relating in any way to this Agreement shall be brought and enforced in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any such process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 9.1 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim. The Company agrees that the prevailing party(ies) in any such action shall be entitled to recover from the other party(ies) all of its reasonable attorneys' fees and expenses relating to such action or proceeding and/or incurred in connection with the preparation therefor. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

9.7 Execution in Counterparts. This Agreement may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement, and shall become effective when one or more counterparts has been signed by each of the parties hereto and delivered to each of the other parties hereto. Delivery of a signed counterpart of this Agreement by facsimile or email/pdf transmission shall constitute valid and sufficient delivery thereof.

9.8 Waiver, etc. The failure of any of the parties hereto to at any time enforce any of the provisions of this Agreement shall not be deemed or construed to be a waiver of any such provision, nor to in any way effect the validity of this Agreement or any provision hereof or the right of any of the parties hereto to thereafter enforce each and every provision of this Agreement. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Agreement shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

[Signature Page Follows]

If the foregoing correctly sets forth the understanding between the Underwriters and the Company, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between us.

Very truly yours,

PRESSURE BIOSCIENCES, INC.

By: _____

Name: Richard T. Schumacher

Title: President and Chief Executive Officer

Confirmed as of the date first written above mentioned, on behalf of
itself and as Representative of the several Underwriters named on
Schedule 1 hereto:

JOSEPH GUNNAR & CO., LLC.

By: _____

Name: Eric Lord

Title: Head of Investment Banking/Underwritings

SCHEDULE 1

Underwriter	Total Number of Firm Shares	Total Number of Firm Warrants	Total Number of Option Shares	Total Number of Option Warrants
Joseph Gunnar & Co., LLC				
TOTAL				

SCHEDULE 2-A

Pricing Information

Number of Firm Shares: [•]

Number of Firm Warrants [•]

Number of Option Shares: [•]

Number of Option Warrants [•]

Purchase Price per Option Warrant [•]

Purchase Price per Option Share [•]

Public Offering Price per Firm Security [•]

Underwriting Discount per Firm Security: \$[•]

Underwriting Non-accountable expense allowance per Firm Security: \$[•]

Proceeds to Company per Firm Security (before expenses): \$[•]

SCHEDULE 2-B

Issuer General Use Free Writing Prospectuses

[None.]

SCHEDULE 2-C

Written Testing-the-Waters Communications

[None.]

SCHEDULE 3

List of Lock-Up Parties

Richard T. Schumacher
Jeffrey N. Peterson
Kevin A. Pollack
Michael S. Urdea
Vito J. Mangiardi
Edmund Y. Ting
Joseph L. Damasio Jr.
Nathan P. Lawrence
Alexander V. Lazarev

EXHIBIT A

WARRANT TO PURCHASE COMMON STOCK

PRESSURE BIOSCIENCES, INC.

Warrant Shares: _____

Initial Exercise Date: _____, 2018

THIS WARRANT TO PURCHASE COMMON STOCK (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after _____, 2018 (the "Initial Exercise Date") and, in accordance with FINRA Rule 5110(f)(2)(G)(i), prior to at 5:00 p.m. (New York time) on the date that is five (5) years following the Effective Date (the "Termination Date") but not thereafter, to subscribe for and purchase from Pressure BioSciences, Inc., a Massachusetts corporation (the "Company"), up to _____ shares of common stock, par value \$0.01 per share (the "Common Stock"), of the Company (the "Warrant Shares"), as subject to adjustment hereunder. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Agreement, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"Commission" means the United States Securities and Exchange Commission.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Rule 144" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Trading Day" means a day on which the New York Stock Exchange is open for trading.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE MKT, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of a share of Common Stock for such date (or the nearest preceding date) on the OTCQB or OTCQX as applicable, (c) if Common Stock is not then listed or quoted for trading on the OTCQB or OTCQX and if prices for Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of Common Stock so reported, or (d) in all other cases, the fair market value of the Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Section 2. Exercise.

a) Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise Form annexed hereto. Within three (3) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise Form within two (2) Business Days of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be \$ _____¹, subject to adjustment hereunder (the “Exercise Price”).

¹125% of the public offering price per share of common stock in the offering.

c) Cashless Exercise. If at any time after the 6 month anniversary of the Initial Exercise Date, there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the VWAP on the Trading Day immediately preceding the date on which Holder elects to exercise this Warrant by means of a “cashless exercise,” as set forth in the applicable Notice of Exercise;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a “cashless exercise,” the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by its transfer agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder, or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 and, in either case, the Warrant Shares have been sold by the Holder prior to the Warrant Share Delivery Date (as defined below), and otherwise by physical delivery of a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is three (3) Trading Days after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”). If the Warrant Shares can be delivered via DWAC, the transfer agent shall have received from the Company any legal opinions or other documentation required by it to deliver such Warrant Shares without legend (subject to receipt by the Company of reasonable back up documentation from the Holder, including with respect to affiliate status) and, if applicable and requested by the Company prior to the Warrant Share Delivery Date, the transfer agent shall have received from the Holder a confirmation of sale of the Warrant Shares (provided the requirement of the Holder to provide a confirmation as to the sale of Warrant Shares shall not be applicable to the issuance of unlegended Warrant Shares upon a cashless exercise of this Warrant if the Warrant Shares are then eligible for resale pursuant to Rule 144(b)(1)). The Warrant Shares shall be deemed to have been issued, and Holder or any other person so designated to be named therein shall be deemed to have become a holder of record of such shares for all purposes, as of the date the Warrant has been exercised, with payment to the Company of the Exercise Price (or by cashless exercise, if permitted) and all taxes required to be paid by the Holder, if any, pursuant to Section 2(d)(vi) prior to the issuance of such shares, having been paid. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the second Trading Day following the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause its transfer agent to deliver to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise; provided, however, that the Holder shall be required to return any Warrant Shares or Common Stock subject to any such rescinded exercise notice concurrently with the return to Holder of the aggregate Exercise Price paid to the Company for such Warrant Shares and the restoration of Holder's right to acquire such Warrant Shares pursuant to this Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause its transfer agent to transmit to the Holder the Warrant Shares pursuant to an exercise on or before the second Trading Day following the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all transfer agent fees required for same-day processing of any Notice of Exercise.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

viii. Signature. This Section 2 and the exercise form attached hereto set forth the totality of the procedures required of the Holder in order to exercise this Purchase Warrant. Without limiting the preceding sentences, no ink-original exercise form shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any exercise form be required in order to exercise this Purchase Warrant. No additional legal opinion, other information or instructions shall be required of the Holder to exercise this Purchase Warrant. The Company shall honor exercises of this Purchase Warrant and shall deliver Shares underlying this Purchase Warrant in accordance with the terms, conditions and time periods set forth herein.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Company's transfer agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification. For the purposes of clarification, the Exercise Price of this Warrant will not be adjusted in the event that the Company or Subsidiary thereof, as applicable sells or grants any option to purchase, or sell or grant any right to reprice, or otherwise dispose of or issue (or announce any offer, sale, grant or any option to purchase or other disposition) any Common Stock or Common Stock Equivalents, at an effective price per share less than the Exercise Price then in effect.

b) [RESERVED]

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend (other than cash dividends) or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of shares or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable by holders of Common Stock as a result of such Fundamental Transaction for each share of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly mail to the Holder a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be mailed a notice to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to provide such notice or any defect therein shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Pursuant to FINRA Rule 5110(g)(1), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall 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 the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security:

i. by operation of law or by reason of reorganization of the Company;

ii. to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period;

iii. if the aggregate amount of securities of the Company held by the Holder or related person do not exceed 1% of the securities being offered;

iv. 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

v. the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Subject to the foregoing restriction, any applicable securities laws and the conditions set forth in Section 4(d), this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i).

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates to execute and issue the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the underwriting agreement, dated ____, 2017, by and between the Company, and Joseph Gunnar & Co., LLC as representative of the underwriters set forth therein (the "Underwriting Agreement").

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Underwriting Agreement, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Underwriting Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

PRESSURE BIOSCIENCES, INC.

By: _____

Name: Richard T. Schumacher

Title: President and Chief Executive Officer

Exhibit A-14

NOTICE OF EXERCISE

TO: PRESSURE BIOSCIENCES, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please register and issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number or by physical delivery of a certificate to:

(4) Accredited Investor. If the Warrant is being exercised via cash exercise, the undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form and supply required information. Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, [] all of or [] shares of the foregoing Warrant and all rights evidenced thereby are hereby assigned to

_____ whose address is

_____.

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

WARRANT AGENT AGREEMENT

WARRANT AGENT AGREEMENT (this "Warrant Agreement") dated as of _____, 2017 (the "Issuance Date") between Pressure BioSciences, Inc., a company incorporated under the laws of the Commonwealth of Massachusetts (the "Company"), and Computershare Trust Company, N.A. (the "Warrant Agent").

WHEREAS, pursuant to the terms of that certain Underwriting Agreement ("Underwriting Agreement"), dated _____, 2017, by and among the Company and Joseph Gunnar & Co., LLC, as representative of the underwriters set forth therein, the Company is engaged in a public offering (the "Offering") of up to _____ shares (the "Shares") of common stock, par value \$0.01 per share (the "Common Stock") of the Company and up to _____ Warrants (the "Warrants") to purchase shares of Common Stock (the "Warrant Shares"), including Shares and Warrants issuable pursuant to the underwriters' over-allotment option;

WHEREAS, the Company has filed with the Securities and Exchange Commission (the "Commission") a Registration Statement, No. 333-215277, on Form S-1 (as the same may be amended from time to time, the "Registration Statement"), for the registration under the Securities Act of 1933, as amended (the "Securities Act"), of the Shares, Warrants and Warrant Shares, and such Registration Statement was declared effective on _____, 2017;

WHEREAS, the Company desires the Warrant Agent to act on behalf of the Company, and the Warrant Agent is willing to so act, in accordance with the terms set forth in this Warrant Agreement in connection with the issuance, registration, transfer, exchange and exercise of the Warrants;

WHEREAS, the Company desires to provide for the provisions of the Warrants, the terms upon which they shall be issued and exercised, and the respective rights, limitation of rights, and immunities of the Company, the Warrant Agent, and the holders of the Warrants; and

WHEREAS, all acts and things have been done and performed which are necessary to make the Warrants the valid, binding and legal obligations of the Company, and to authorize the execution and delivery of this Warrant Agreement.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, the parties hereto agree as follows:

1. Appointment of Warrant Agent. The Company hereby appoints the Warrant Agent to act as agent for the Company with respect to the Warrants, and the Warrant Agent hereby accepts such appointment and agrees to perform the same in accordance with the express terms and conditions set forth in this Warrant Agreement (and no implied terms or conditions).

2. Warrants.

2.1 Form of Warrants. The Warrants shall be registered securities and may be initially evidenced by a global certificate ("Global Certificate") in the form of Annex A to this Warrant Agreement, which shall be deposited on behalf of the Company with a custodian for The Depository Trust Company ("DTC") and registered in the name of Cede & Co., a nominee of DTC. If DTC subsequently ceases to make its book-entry settlement system available for the Warrants, the Company may instruct the Warrant Agent regarding making other arrangements for book-entry settlement. In the event that the Warrants are not eligible for, or it is no longer necessary to have the Warrants available in, book-entry form, the Company may instruct the Warrant Agent to provide written instructions to DTC to deliver to the Warrant Agent for cancellation the Global Certificate, and the Company shall instruct the Warrant Agent to deliver to DTC separate certificates evidencing Warrants ("Definitive Certificates") and, together with the Global Certificate, "Warrant Certificates") registered as requested through the DTC system in the form of Annex C to this Warrant Agreement.

2.2. Issuance and Registration of Warrants.

2.2.1. Warrant Register. The Warrant Agent shall maintain books (“Warrant Register”) for the registration of original issuance and the registration of transfer of the Warrants.

2.2.2. Issuance of Warrants. Upon the initial issuance of the Warrants, the Warrant Agent may issue the Global Certificate or deliver the Warrants in the DTC book-entry settlement system in accordance with written instructions delivered to the Warrant Agent by the Company. Ownership of security entitlements in the Warrants shall be shown on, and the transfer of such ownership shall be effected through, records maintained (i) by DTC and (ii) by institutions that have accounts with DTC (each, a “Participant”), subject to a Holder’s right to elect to receive a Warrant in certificated form in the form of Annex C to this Warrant Agreement. Any Holder desiring to elect to receive a Warrant in certificated form shall make such request in writing delivered to the Warrant Agent, and shall surrender to the Warrant Agent the book-entry interest evidencing the Warrants which are to be represented by a Definitive Certificate through the DTC book-entry settlement system. Thereupon, the Warrant Agent shall countersign and deliver to the person entitled thereto a Warrant Certificate or Warrant Certificates, as the case may be, as so requested.

2.2.3. Beneficial Owner; Holder. Prior to due presentment for registration of transfer of any Warrant, the Company and the Warrant Agent may deem and treat the person in whose name that Warrant shall be registered on the Warrant Register (the “Holder”) as the absolute owner of such Warrant for purposes of any exercise thereof, and for all other purposes, and neither the Company nor the Warrant Agent shall be affected by any notice to the contrary. Notwithstanding the foregoing, nothing herein shall prevent the Company, the Warrant Agent or any agent of the Company or the Warrant Agent from giving effect to any written certification, proxy or other authorization furnished by DTC governing the exercise of the rights of a holder of a beneficial interest in any Warrant. The rights of beneficial owners in a Warrant evidenced by the Global Certificate shall be exercised by the Holder or a Participant through the DTC system, except to the extent set forth herein or in the Global Certificate.

2.2.4. Execution. The Warrant Certificates shall be executed on behalf of the Company by any authorized officer of the Company (an “Authorized Officer”), which need not be the same authorized signatory for all of the Warrant Certificates, either manually or by facsimile signature. The Warrant Certificates shall be countersigned by an authorized signatory of the Warrant Agent, which need not be the same signatory for all of the Warrant Certificates, and no Warrant Certificate shall be valid for any purpose unless so countersigned. In case any Authorized Officer of the Company that signed any of the Warrant Certificates ceases to be an Authorized Officer of the Company before countersignature by the Warrant Agent and issuance and delivery by the Company, such Warrant Certificates, nevertheless, may be countersigned by the Warrant Agent, issued and delivered with the same force and effect as though the person who signed such Warrant Certificates had not ceased to be such officer of the Company; and any Warrant Certificate may be signed on behalf of the Company by any person who, at the actual date of the execution of such Warrant Certificate, shall be an Authorized Officer of the Company authorized to sign such Warrant Certificate, although at the date of the execution of this Warrant Agreement any such person was not such an Authorized Officer.

2.2.5. Registration of Transfer. At any time at or prior to the Expiration Date (as defined below), a transfer of any Warrants may be registered and any Warrant Certificate or Warrant Certificates may be split up, combined or exchanged for another Warrant Certificate or Warrant Certificates evidencing the same number of Warrants as the Warrant Certificate or Warrant Certificates surrendered. Any Holder desiring to register the transfer of Warrants or to split up, combine or exchange any Warrant Certificate shall make such request in writing delivered to the Warrant Agent, and shall surrender to the Warrant Agent the Warrant Certificate or Warrant Certificates evidencing the Warrants the transfer of which is to be registered or that is or are to be split up, combined or exchanged. Thereupon, the Warrant Agent shall countersign and deliver to the person entitled thereto a Warrant Certificate or Warrant Certificates, as the case may be, as so requested. The Company and the Warrant Agent may require payment, by the Holder requesting a registration of transfer of Warrants or a split-up, combination or exchange of a Warrant Certificate (but, for purposes of clarity, not upon the exercise of the Warrants and issuance of Warrant Shares to the Holder), of a sum sufficient to cover any tax or governmental charge that may be imposed in connection with such registration of transfer, split-up, combination or exchange, together with reimbursement to the Company and the Warrant Agent of all reasonable expenses incidental thereto.

2.2.6. Loss, Theft and Mutilation of Warrant Certificates. Upon receipt by the Company and the Warrant Agent of evidence reasonably satisfactory to them of the loss, theft, destruction or mutilation of a Warrant Certificate, and, in case of loss, theft or destruction, of indemnity or security in customary form and amount, and reimbursement to the Company and the Warrant Agent of all reasonable expenses incidental thereto, and upon surrender to the Warrant Agent and cancellation of the Warrant Certificate if mutilated, the Warrant Agent shall, on behalf of the Company, countersign and deliver a new Warrant Certificate of like tenor to the Holder in lieu of the Warrant Certificate so lost, stolen, destroyed or mutilated. The Warrant Agent may charge the Holder an administrative fee for processing the replacement of lost Warrant Certificates, which shall be charged only once in instances where a single surety bond obtained covers multiple certificates. The Warrant Agent may receive compensation from the surety companies or surety agents for administrative services provided to them.

2.2.7. Proxies. The Holder of a Warrant may grant proxies or otherwise authorize any person, including the Participants and beneficial holders that may own interests through the Participants, to take any action that a Holder is entitled to take under this Agreement or the Warrants; provided, however, that at all times that Warrants are evidenced by a Global Certificate, exercise of those Warrants shall be effected on their behalf by Participants through DTC in accordance the procedures administered by DTC.

3. Terms and Exercise of Warrants.

3.1. Exercise Price. Each Warrant shall entitle the Holder, subject to the provisions of the applicable Warrant Certificate and of this Warrant Agreement, to purchase from the Company the number of shares of Common Stock stated therein, at the price of \$ ____ per whole share, subject to the subsequent adjustments provided in Section 4 hereof. The term "Exercise Price" as used in this Warrant Agreement refers to the price per share at which shares of Common Stock may be purchased at the time a Warrant is exercised.

3.2. Duration of Warrants. Warrants may be exercised only during the period ("Exercise Period") commencing on the Issuance Date and terminating at 5:00 P.M., New York City time (the "close of business") on _____, 2022 ("Expiration Date"). Each Warrant not exercised on or before the Expiration Date shall become void, and all rights thereunder and all rights in respect thereof under this Warrant Agreement shall cease at the close of business on the Expiration Date.

3.3. Exercise of Warrants.

3.3.1. Exercise and Payment.

(a) Exercise of the purchase rights represented by a Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before close of business on the Expiration Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise in the form annexed as Annex B hereto. Within three (3) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender a Warrant to the Company until the Holder has purchased all of the Warrant Shares available thereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender such Warrant to the Company for cancellation within three (3) Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of a Warrant resulting in purchases of a portion of the total number of Warrant Shares available thereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of a Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face thereof.**

Notwithstanding the foregoing in this Section 2(a), a holder whose interest in a Warrant is a beneficial interest in certificate(s) representing such Warrant held in book-entry form through DTC (or another established clearing corporation performing similar functions), shall effect exercises made pursuant to this Section 2(a) by delivering to DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, complying with the procedures to effect exercise that are required by DTC (or such other clearing corporation, as applicable), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

3.3.2. Issuance of Warrant Shares. (a) The Warrant Agent shall, by 11:00 a.m., New York City time, on the Trading Day following the Date of Exercise of any Warrant, advise the Company, the transfer agent and registrar for the Company's Common Stock, in respect of (i) the number of Warrant Shares indicated on the Notice of Exercise as issuable upon such exercise with respect to such exercised Warrants, (ii) the instructions of the Holder or Participant, as the case may be, provided to the Warrant Agent with respect to the delivery of the Warrant Shares and the number of Warrants that remain outstanding after such exercise and (iii) such other information as the Company or such transfer agent and registrar shall reasonably request.

(b) The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is three (3) Trading Days after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a Cashless Exercise) is received within three Trading Days of delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable.

3.3.3. Valid Issuance. All Warrant Shares issued by the Company upon the proper exercise of a Warrant in conformity with this Warrant Agreement shall be validly issued, fully paid and non-assessable.

3.3.4. No Fractional Exercise. No fractional Warrant Shares will be issued upon the exercise of the Warrant. If, by reason of any adjustment made pursuant to Section 4, a Holder would be entitled, upon the exercise of such Warrant, to receive a fractional interest in a share, the Company shall, upon such exercise, round up or down, as applicable, to the nearest whole number the number of Warrant Shares to be issued to such Holder.

3.3.5 No Transfer Taxes. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

3.3.6 [RESERVED]

3.3.7 Restrictive Legend Events; Cashless Exercise Under Certain Circumstances.

(i) The Company shall use its reasonable best efforts to maintain the effectiveness of the Registration Statement and the current status of the prospectus included therein or to file and maintain the effectiveness of another registration statement and another current prospectus covering the Warrants and the Warrant Shares at any time that the Warrants are exercisable. The Company shall provide to the Warrant Agent and each Holder prompt written notice of any time that the Company is unable to deliver the Warrant Shares via DTC transfer or otherwise without restrictive legend because (A) the Commission has issued a stop order with respect to the Registration Statement, (B) the Commission otherwise has suspended or withdrawn the effectiveness of the Registration Statement, either temporarily or permanently, (C) the Company has suspended or withdrawn the effectiveness of the Registration Statement, either temporarily or permanently, (D) the prospectus contained in the Registration Statement is not available for the issuance of the Warrant Shares to the Holder or (E) otherwise (each a "Restrictive Legend Event"). To the extent that the Warrants cannot be exercised as a result of a Restrictive Legend Event or a Restrictive Legend Event occurs after a Holder has exercised Warrants in accordance with the terms of the Warrants but prior to the delivery of the Warrant Shares, the Company shall, at the election of the Holder, which shall be given within five (5) days of receipt of such notice of the Restrictive Legend Event, either (A) rescind the previously submitted Election to Purchase and the Company shall return all consideration paid by registered holder for such shares upon such rescission or (B) treat the attempted exercise as a cashless exercise as described in paragraph (ii) below and refund the cash portion of the exercise price to the Holder.

(ii) If a Restrictive Legend Event has occurred, the Warrant shall only be exercisable on a cashless basis. Notwithstanding anything herein to the contrary, the Company shall not be required to make any cash payments or net cash settlement to the Holder in lieu of delivery of the Warrant Shares. Upon a "cashless exercise", the Holder shall be entitled to receive the number of Warrant Shares equal to the quotient obtained by dividing (A-B) (X) by (A), where:

(A) =the last VWAP immediately preceding the Date of Exercise giving rise to the applicable "cashless exercise", as set forth in the applicable Election to Purchase (to clarify, the "last VWAP" will be the last VWAP as calculated over an entire Trading Day such that, in the event that this Warrant is exercised at a time that the Trading Market is open, the prior Trading Day's VWAP shall be used in this calculation

(B) =the Exercise Price of the Warrant, as adjusted as set forth herein; and

(X) =the number of Warrant Shares that would be issuable upon exercise of the Warrant in accordance with the terms of the Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If the Warrant Shares are issued in such a cashless exercise, the Company acknowledges and agrees that, in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised and the Company agrees not to take any position contrary thereto. Upon receipt of an Election to Purchase for a cashless exercise, the Warrant Agent will promptly deliver a copy of the Election to Purchase to the Company to confirm the number of Warrant Shares issuable in connection with the cashless exercise. The Company shall calculate and transmit to the Warrant Agent in a written notice, and the Warrant Agent shall have no duty, responsibility or obligation under this section to calculate, the number of Warrant Shares issuable in connection with any cashless exercise. The Warrant Agent shall be entitled to rely conclusively on any such written notice provided by the Company, and the Warrant Agent shall not be liable for any action taken, suffered or omitted to be taken by it in accordance with such written instructions or pursuant to this Warrant Agreement. Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 3.3.7.

3.3.8 Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the number of Warrant Shares issuable in connection with any exercise, the Company shall promptly deliver to the Holder the number of Warrant Shares that are not disputed.

3.3.9 Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

3.3.10 Beneficial Ownership Limitation. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of a Warrant, pursuant to Section 3 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of such Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of such Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 3.3.10, beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 3.3.10 applies, the determination of whether a Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of a Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether a Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of a Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 3.3.10, in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including such Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of a Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 3.3.10, provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 3.3.10 shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 3.3.10 to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

4. Adjustments.

4.1 Adjustment upon Subdivisions or Combinations. If the Company, at any time while the Warrants are outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of the Warrants), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of each Warrant shall be proportionately adjusted such that the aggregate Exercise Price of such Warrant shall remain unchanged. Any adjustment made pursuant to this Section 4.1 shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

4.2 Adjustment for Other Distributions. (a) In addition to any adjustments pursuant to Section 4.1 above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of a Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

(b) Pro Rata Distributions. During such time as the Warrants are outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of the Warrants, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of such Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

4.3. Reclassification, Consolidation, Purchase, Combination, Sale or Conveyance. If, at any time while the Warrants are outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of a Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 3.3.10 on the exercise of a Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 3.3.10 on the exercise of a Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under the Warrants in accordance with the provisions of this Section 4.3 pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of the Warrants referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under the Warrants with the same effect as if such Successor Entity had been named as the Company therein.

The Company shall instruct the Warrant Agent in writing to mail by first class mail, postage prepaid, to each Holder, written notice of the execution of any such amendment, supplement or agreement with the Successor Entity. Any supplemented or amended agreement entered into by the successor corporation or transferee shall provide for adjustments, which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 4.3. The Warrant Agent shall have no duty, responsibility or obligation to determine the correctness of any provisions contained in such agreement or such notice, including but not limited to any provisions relating either to the kind or amount of securities or other property receivable upon exercise of warrants or with respect to the method employed and provided therein for any adjustments, and shall be entitled to rely conclusively for all purposes upon the provisions contained in any such agreement. The provisions of this Section 4.3 shall similarly apply to successive reclassifications, changes, consolidations, mergers, sales and conveyances of the kind described above.

4.4. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

4.5 Other Events. If any event occurs of the type contemplated by the provisions of Section 4.1 or 4.2 but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, Adjustment Rights, phantom stock rights or other rights with equity features to all holders of Common Stock for no consideration), then the Company's Board of Directors will, at its discretion and in good faith, make an adjustment in the Exercise Price and the number of Warrant Shares or designate such additional consideration to be deemed issuable upon exercise of a Warrant, so as to protect the rights of the registered Holder. No adjustment to the Exercise Price will be made pursuant to more than one sub-section of this Section 4 in connection with a single issuance.

4.6. Notices of Changes in Warrant. Upon every adjustment of the Exercise Price or the number of Warrant Shares issuable upon exercise of a Warrant, the Company shall give written notice thereof to the Warrant Agent, which notice shall state the Exercise Price resulting from such adjustment and the increase or decrease, if any, in the number of Warrant Shares purchasable at such price upon the exercise of a Warrant, setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based. Upon the occurrence of any event specified in Sections 4.1 or 4.2, then, in any such event, the Company shall give written notice to each Holder, at the last address set forth for such holder in the Warrant Register, as of the record date or the effective date of the event. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such event. The Warrant Agent shall be entitled to rely conclusively on, and shall be fully protected in relying on, any certificate, notice or instructions provided by the Company with respect to any adjustment of the Exercise Price or the number of shares issuable upon exercise of a Warrant, or any related matter, and the Warrant Agent shall not be liable for any action taken, suffered or omitted to be taken by it in accordance with any such certificate, notice or instructions or pursuant to this Warrant Agreement. The Warrant Agent shall not be deemed to have knowledge of any such adjustment unless and until it shall have received written notice thereof from the Company.

5. Restrictive Legends: Fractional Warrants.

In the event that a Warrant Certificate surrendered for transfer bears a restrictive legend, the Warrant Agent shall not register that transfer until the Warrant Agent has received an opinion of counsel for the Company stating that such transfer may be made and indicating whether the Warrants must also bear a restrictive legend upon that transfer. The Warrant Agent shall not be required to effect any registration of transfer or exchange which will result in the transfer of or delivery of a Warrant Certificate for a fraction of a Warrant.

6. [RESERVED].

7. Other Provisions Relating to Rights of Holders of Warrants.

7.1. No Rights as Stockholder. Except as otherwise specifically provided herein, a Holder, solely in its capacity as a holder of Warrants, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant Agreement be construed to confer upon a Holder, solely in its capacity as the registered holder of Warrants, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of share capital, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights or rights to participate in new issues of shares, or otherwise, prior to the issuance to the Holder of the Warrant Shares which it is then entitled to receive upon the due exercise of Warrants.

7.2. Reservation of Common Stock. The Company shall at all times reserve and keep available a number of its authorized but unissued shares of Common Stock that will be sufficient to permit the exercise in full of all outstanding Warrants issued pursuant to this Warrant Agreement.

8. Concerning the Warrant Agent and Other Matters.

8.1. Any instructions given to the Warrant Agent orally, as permitted by any provision of this Warrant Agreement, shall be confirmed in writing by the Company as soon as practicable. The Warrant Agent shall not be liable or responsible and shall be fully authorized and protected for acting, or failing to act, in accordance with any oral instructions which do not conform with the written confirmation received in accordance with this Section 8.1.

8.2. (a) Whether or not any Warrants are exercised, for the Warrant Agent's services as agent for the Company hereunder, the Company shall pay to the Warrant Agent such fees as may be separately agreed between the Company and Warrant Agent and the Warrant Agent's out of pocket expenses in connection with this Warrant Agreement, including, without limitation, the fees and expenses of the Warrant Agent's counsel. While the Warrant Agent endeavors to maintain out-of-pocket charges (both internal and external) at competitive rates, these charges may not reflect actual out-of-pocket costs, and may include handling charges to cover internal processing and use of the Warrant Agent's billing systems.

(b) All amounts owed by the Company to the Warrant Agent under this Warrant Agreement are due within 30 days of the invoice date. Delinquent payments are subject to a late payment charge of one and one-half percent (1.5%) per month commencing 45 days from the invoice date. The Company agrees to reimburse the Warrant Agent for any attorney's fees and any other costs associated with collecting delinquent payments.

(c) No provision of this Warrant Agreement shall require Warrant Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties under this Warrant Agreement or in the exercise of its rights.

8.3 As agent for the Company hereunder the Warrant Agent:

(a) shall have no duties or obligations other than those specifically set forth herein or as may subsequently be agreed to in writing by the Warrant Agent and the Company;

(b) shall be regarded as making no representations and having no responsibilities as to the validity, sufficiency, value, or genuineness of the Warrants or any Warrant Shares;

(c) shall not be obligated to take any legal action hereunder; if, however, the Warrant Agent determines to take any legal action hereunder, and where the taking of such action might, in its judgment, subject or expose it to any expense or liability it shall not be required to act unless it has been furnished with an indemnity reasonably satisfactory to it;

(d) may rely on and shall be fully authorized and protected in acting or failing to act upon any certificate, instrument, opinion, notice, letter, telegram, telex, facsimile transmission or other document or security delivered to the Warrant Agent and believed by it to be genuine and to have been signed by the proper party or parties;

(e) shall not be liable or responsible for any recital or statement contained in the Registration Statement or any other documents relating thereto;

(f) shall not be liable or responsible for any failure on the part of the Company to comply with any of its covenants and obligations relating to the Warrants, including without limitation obligations under applicable securities laws;

(g) may rely on and shall be fully authorized and protected in acting or failing to act upon the written, telephonic or oral instructions with respect to any matter relating to its duties as Warrant Agent covered by this Warrant Agreement (or supplementing or qualifying any such actions) of officers of the Company, and is hereby authorized and directed to accept instructions with respect to the performance of its duties hereunder from the Company or counsel to the Company, and may apply to the Company, for advice or instructions in connection with the Warrant Agent's duties hereunder, and the Warrant Agent shall not be liable for any delay in acting while waiting for those instructions; any applications by the Warrant Agent for written instructions from the Company may, at the option of the Agent, set forth in writing any action proposed to be taken or omitted by the Warrant Agent under this Warrant Agreement and the date on or after which such action shall be taken or such omission shall be effective; the Warrant Agent shall not be liable for any action taken by, or omission of, the Warrant Agent in accordance with a proposal included in such application on or after the date specified in such application (which date shall not be less than five business days after the date such application is sent to the Company, unless the Company shall have consented in writing to any earlier date) unless prior to taking any such action, the Warrant Agent shall have received written instructions in response to such application specifying the action to be taken or omitted;

(h) may consult with counsel satisfactory to the Warrant Agent, including its in-house counsel, and the advice of such counsel shall be full and complete authorization and protection in respect of any action taken, suffered, or omitted by it hereunder in good faith and in accordance with the advice of such counsel;

(i) may perform any of its duties hereunder either directly or by or through nominees, correspondents, designees, or subagents, and it shall not be liable or responsible for any misconduct or negligence on the part of any nominee, correspondent, designee, or subagent appointed with reasonable care by it in connection with this Warrant Agreement;

(j) is not authorized, and shall have no obligation, to pay any brokers, dealers, or soliciting fees to any person and

(k) shall not be required hereunder to comply with the laws or regulations of any country other than the United States of America or any political subdivision thereof.

8.4. (a) In the absence of gross negligence or willful or illegal misconduct on its part, the Warrant Agent shall not be liable for any action taken, suffered, or omitted by it or for any error of judgment made by it in the performance of its duties under this Warrant Agreement. Anything in this Warrant Agreement to the contrary notwithstanding, in no event shall Warrant Agent be liable for special, indirect, incidental, consequential or punitive losses or damages of any kind whatsoever (including but not limited to lost profits), even if the Warrant Agent has been advised of the possibility of such losses or damages and regardless of the form of action. Any liability of the Warrant Agent will be limited in the aggregate to the amount of fees paid by the Company hereunder. The Warrant Agent shall not be liable for any failures, delays or losses, arising directly or indirectly out of conditions beyond its reasonable control including, but not limited to, acts of government, exchange or market ruling, suspension of trading, work stoppages or labor disputes, fires, civil disobedience, riots, rebellions, storms, electrical or mechanical failure, computer hardware or software failure, communications facilities failures including telephone failure, war, terrorism, insurrection, earthquakes, floods, acts of God or similar occurrences.

(b) In the event any question or dispute arises with respect to the proper interpretation of the Warrants or the Warrant Agent's duties under this Warrant Agreement or the rights of the Company or of any Holder, the Warrant Agent shall not be required to act and shall not be held liable or responsible for its refusal to act until the question or dispute has been judicially settled (and, if appropriate, it may file a suit in interpleader or for a declaratory judgment for such purpose) by final judgment rendered by a court of competent jurisdiction, binding on all persons interested in the matter which is no longer subject to review or appeal, or settled by a written document in form and substance satisfactory to Warrant Agent and executed by the Company and each such Holder. In addition, the Warrant Agent may require for such purpose, but shall not be obligated to require, the execution of such written settlement by all the Holders and all other persons that may have an interest in the settlement.

8.5. The Company covenants to indemnify the Warrant Agent and hold it harmless from and against any loss, liability, claim or expense ("Loss") arising out of or in connection with the Warrant Agent's duties under this Warrant Agreement, including the costs and expenses of defending itself against any Loss, unless such Loss shall have been determined by a court of competent jurisdiction to be a result of the Warrant Agent's gross negligence or willful misconduct.

8.6. Unless terminated earlier by the parties hereto, this Agreement shall terminate 90 days after the earlier of the Expiration Date and the date on which no Warrants remain outstanding (the "Termination Date"). On the business day following the Termination Date, the Agent shall deliver to the Company any entitlements, if any, held by the Warrant Agent under this Warrant Agreement. The Agent's right to be reimbursed for fees, charges and out-of-pocket expenses as provided in this Section 8 shall survive the termination of this Warrant Agreement.

8.7. If any provision of this Warrant Agreement shall be held illegal, invalid, or unenforceable by any court, this Warrant Agreement shall be construed and enforced as if such provision had not been contained herein and shall be deemed an Agreement among the parties to it to the full extent permitted by applicable law.

8.8. The Company represents and warrants that (a) it is duly incorporated and validly existing under the laws of its jurisdiction of incorporation, (b) the offer and sale of the Warrants and the execution, delivery and performance of all transactions contemplated thereby (including this Warrant Agreement) have been duly authorized by all necessary corporate action and will not result in a breach of or constitute a default under the articles of association, bylaws or any similar document of the Company or any indenture, agreement or instrument to which it is a party or is bound, (c) this Warrant Agreement has been duly executed and delivered by the Company and constitutes the legal, valid, binding and enforceable obligation of the Company, (d) the Warrants will comply in all material respects with all applicable requirements of law and (e) to the best of its knowledge, there is no litigation pending or threatened as of the date hereof in connection with the offering of the Warrants.

8.9. In the event of inconsistency between this Warrant Agreement and the descriptions in the Registration Statement, as they may from time to time be amended, the terms of this Warrant Agreement shall control.

8.10. Set forth in Annex D hereto is a list of the names and specimen signatures of the persons authorized to act for the Company under this Warrant Agreement (the “Authorized Representatives”). The Company shall, from time to time, certify to you the names and signatures of any other persons authorized to act for the Company under this Warrant Agreement.

8.11. Except as expressly set forth elsewhere in this Warrant Agreement, all notices, instructions and communications under this Agreement shall be in writing, shall be effective upon receipt and shall be addressed, if to the Company, to its address set forth beneath its signature to this Agreement, or, if to the Warrant Agent, to Computershare Trust Company, N.A., P.O. Box 43078, Providence, RI 02940, or to such other address of which a party hereto has notified the other party.

8.12. (a) This Warrant Agreement shall be governed by and construed in accordance with the laws of the State of New York. All actions and proceedings relating to or arising from, directly or indirectly, this Warrant Agreement may be litigated in courts located within the Borough of Manhattan in the City and State of New York. The Company hereby submits to the personal jurisdiction of such courts and consents that any service of process may be made by certified or registered mail, return receipt requested, directed to the Company at its address last specified for notices hereunder. Each of the parties hereto hereby waives the right to a trial by jury in any action or proceeding arising out of or relating to this Warrant Agreement.

(b) This Warrant Agreement shall inure to the benefit of and be binding upon the successors and assigns of the parties hereto. This Warrant Agreement may not be assigned, or otherwise transferred, in whole or in part, by either party without the prior written consent of the other party, which the other party will not unreasonably withhold, condition or delay; except that (i) consent is not required for an assignment or delegation of duties by Warrant Agent to any affiliate of Warrant Agent and (ii) any reorganization, merger, consolidation, sale of assets or other form of business combination by Warrant Agent or the Company shall not be deemed to constitute an assignment of this Warrant Agreement.

(c) No provision of this Warrant Agreement may be amended, modified or waived, except in a written document signed by both parties. The Company and the Warrant Agent may amend or supplement this Warrant Agreement without the consent of any Holder for the purpose of curing any ambiguity, or curing, correcting or supplementing any defective provision contained herein or adding or changing any other provisions with respect to matters or questions arising under this Agreement as the parties may deem necessary or desirable and that the parties determine, in good faith, shall not adversely affect the interest of the Holders. All other amendments and supplements shall require the vote or written consent of Holders of at least 50.1% of the then outstanding Warrants, provided that adjustments may be made to the Warrant terms and rights in accordance with Section 4 without the consent of the Holders.

8.13 Payment of Taxes. The Company will from time to time promptly pay all taxes and charges that may be imposed upon the Company or the Warrant Agent in respect of the issuance or delivery of Warrant Shares upon the exercise of Warrants, but the Company may require the Holders to pay any transfer taxes in respect of the Warrants or such shares. The Warrant Agent may refrain from registering any transfer of Warrants or any delivery of any Warrant Shares unless or until the persons requesting the registration or issuance shall have paid to the Warrant Agent for the account of the Company the amount of such tax or charge, if any, or shall have established to the reasonable satisfaction of the Company and the Warrant Agent that such tax or charge, if any, has been paid.

8.14 Resignation of Warrant Agent.

8.14.1. Appointment of Successor Warrant Agent. The Warrant Agent, or any successor to it hereafter appointed, may resign its duties and be discharged from all further duties and liabilities hereunder after giving thirty (30) days' notice in writing to the Company, or such shorter period of time agreed to by the Company. The Company may terminate the services of the Warrant Agent, or any successor Warrant Agent, after giving thirty (30) days' notice in writing to the Warrant Agent or successor Warrant Agent, or such shorter period of time as agreed. If the office of the Warrant Agent becomes vacant by resignation, termination or incapacity to act or otherwise, the Company shall appoint in writing a successor Warrant Agent in place of the Warrant Agent. If the Company shall fail to make such appointment within a period of 30 days after it has been notified in writing of such resignation or incapacity by the Warrant Agent, then the Warrant Agent or any Holder may apply to any court of competent jurisdiction for the appointment of a successor Warrant Agent at the Company's cost. Pending appointment of a successor to such Warrant Agent, either by the Company or by such a court, the duties of the Warrant Agent shall be carried out by the Company. Any successor Warrant Agent (but not including the initial Warrant Agent), whether appointed by the Company or by such court, shall be a person organized and existing under the laws of any state of the United States of America, in good standing, and authorized under such laws to exercise corporate trust powers and subject to supervision or examination by federal or state authority. After appointment, any successor Warrant Agent shall be vested with all the authority, powers, rights, immunities, duties, and obligations of its predecessor Warrant Agent with like effect as if originally named as Warrant Agent hereunder, without any further act or deed, and except for executing and delivering documents as provided in the sentence that follows, the predecessor Warrant Agent shall have no further duties, obligations, responsibilities or liabilities hereunder, but shall be entitled to all rights that survive the termination of this Warrant Agreement and the resignation or removal of the Warrant Agent, including but not limited to its right to indemnity hereunder. If for any reason it becomes necessary or appropriate or at the request of the Company, the predecessor Warrant Agent shall execute and deliver, at the expense of the Company, an instrument transferring to such successor Warrant Agent all the authority, powers, and rights of such predecessor Warrant Agent hereunder; and upon request of any successor Warrant Agent the Company shall make, execute, acknowledge, and deliver any and all instruments in writing for more fully and effectually vesting in and confirming to such successor Warrant Agent all such authority, powers, rights, immunities, duties, and obligations.

8.14.2. Notice of Successor Warrant Agent. In the event a successor Warrant Agent shall be appointed, the Company shall give notice thereof to the predecessor Warrant Agent and the transfer agent for the Common Stock not later than the effective date of any such appointment.

8.14.3. Merger or Consolidation of Warrant Agent. Any person into which the Warrant Agent may be merged or converted or with which it may be consolidated or any person resulting from any merger, conversion or consolidation to which the Warrant Agent shall be a party or any person succeeding to the shareowner services business of the Warrant Agent or any successor Warrant Agent shall be the successor Warrant Agent under this Warrant Agreement, without any further act or deed. For purposes of this Warrant Agreement, "person" shall mean any individual, firm, corporation, partnership, limited liability company, joint venture, association, trust or other entity, and shall include any successor (by merger or otherwise) thereof or thereto.

9. Miscellaneous Provisions.

9.1. Persons Having Rights under this Warrant Agreement. Nothing in this Warrant Agreement expressed and nothing that may be implied from any of the provisions hereof is intended, or shall be construed, to confer upon, or give to, any person or corporation other than the parties hereto and the Holders any right, remedy, or claim under or by reason of this Warrant Agreement or of any covenant, condition, stipulation, promise, or agreement hereof.

9.2. Examination of the Warrant Agreement. A copy of this Warrant Agreement shall be available at all reasonable times at the office of the Warrant Agent designated for such purpose for inspection by any Holder. Prior to such inspection, the Warrant Agent may require any such holder to provide reasonable evidence of its interest in the Warrants.

9.3. Counterparts. This Warrant Agreement may be executed in any number of original, facsimile or electronic counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

9.4. Effect of Headings. The Section headings herein are for convenience only and are not part of this Warrant Agreement and shall not affect the interpretation thereof.

10. Certain Definitions.

As used herein, the following terms shall have the following meanings:

(i) "Adjustment Right" means any right granted with respect to any securities issued in connection with, or with respect to, any issuance, sale or delivery (or deemed issuance, sale or delivery in accordance with Section 4) of Common Stock (other than rights of the type described in Section 4.2 and 4.3 hereof) that could result in a decrease in the net consideration received by the Company in connection with, or with respect to, such securities (including, without limitation, any cash settlement rights, cash adjustment or other similar rights) but excluding anti-dilution and other similar rights (including pursuant to Section 4.4 of this Agreement).

(ii) "Trading Day" means any day on which the Common Stock is traded on the Trading Market, or, if the Trading Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market in the United States on which the Common Stock is then traded, provided that "Trading Day" shall not include any day on which the Common Stock is are scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00 P.M., New York City time).

(iii) "Trading Market" means NYSE MKT, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange.

(iv) "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, this Warrant Agent Agreement has been duly executed by the parties hereto as of the day and year first above written.

PRESSURE BIOSCIENCES, INC.

By: _____
Name:
Title:

Address for notices:

14 Norfolk Avenue
South Easton, Massachusetts 02375

Attention: Richard T. Schumacher
Telephone: 508-230-1828
Facsimile:
E-mail:

COMPUTERSHARE TRUST COMPANY, N.A.
As Warrant Agent

By: _____
Name:
Title:

- Annex A Form of Global Certificate
- Annex B Election to Purchase
- Annex C Form of Certificated Warrant
- Annex D Authorized Representatives

[FORM OF GLOBAL CERTIFICATE]

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO ISSUER OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE, OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

PRESSURE BIOSCIENCES, INC.
 WARRANT CERTIFICATE
 NOT EXERCISABLE AFTER _____, 20__

This certifies that the person whose name and address appears below, or registered assigns, is the registered owner of the number of Warrants set forth below. Each Warrant entitles its registered holder to purchase from Pressure BioSciences, Inc., a company incorporated under the laws of the State of Massachusetts (the “**Company**”), at any time prior to 5:00 P.M. (New York City time) on _____, 20__, one share of common stock, par value \$0.01 per share, of the Company (each, a “**Warrant Share**” and collectively, the “**Warrant Shares**”), at an exercise price of \$__ per share, subject to possible adjustments as provided in the Warrant Agreement (as defined below).

This Warrant Certificate, with or without other Warrant Certificates, upon surrender at the designated office of the Warrant Agent, may be exchanged for another Warrant Certificate or Warrant Certificates evidencing the same number of Warrants as the Warrant Certificate or Warrant Certificates surrendered. A transfer of the Warrants evidenced hereby may be registered upon surrender of this Warrant Certificate at the designated office of the Warrant Agent by the registered holder in person or by a duly authorized attorney, properly endorsed or accompanied by proper instruments of transfer, a signature guarantee, and such other and further documentation as the Warrant Agent may reasonably request and duly stamped as may be required by the laws of the State of New York and of the United States of America.

The terms and conditions of the Warrants and the rights and obligations of the holder of this Warrant Certificate are set forth in the Warrant Agent Agreement dated as of _____, 2017 (the “**Warrant Agreement**”) between the Company and Securities Transfer Corporation (the “**Warrant Agent**”). A copy of the Warrant Agreement is available for inspection during business hours at the office of the Warrant Agent.

This Warrant Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by an authorized signatory of the Warrant Agent.

WITNESS the facsimile signature of a proper officer of the Company.

PRESSURE BIOSCIENCES, INC.

By: _____
 Name:
 Title:

Dated: _____, 2017
 Countersigned:

COMPUTERSHARE TRUST COMPANY, N.A.

As Warrant Agent

By: _____
Name:
Title:

PLEASE DETACH HERE

Certificate No.: _____ Number of Warrants: _____

WARRANT CUSIP NO.: _____

PRESSURE BIOSCIENCES, INC.

[Name & Address of Holder]

_____, Warrant Agent

By Mail:

By hand or overnight courier:

NOTICE OF EXERCISE

TO: PRESSURE BIOSCIENCES, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

[FORM OF CERTIFICATED WARRANT]
COMMON STOCK PURCHASE WARRANT
PRESSURE BIOSCIENCES, INC.

Warrant Shares: _____

Initial Exercise Date: [●] ____, [●]
Issue Date: [●] ____, 2017

CUSIP: _____

ISIN: _____

THIS COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, _____ or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after [●] ____, 2017 (the “Initial Exercise Date”) and on or prior to the close of business on the five (5) year anniversary of the Initial Exercise Date (the “Termination Date”) but not thereafter, to subscribe for and purchase from Pressure BioSciences, Inc., a Massachusetts corporation (the “Company”), up to _____ shares (as subject to adjustment hereunder, the “Warrant Shares”) of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant shall initially be issued and maintained in the form of a security held in book-entry form and the Depository Trust Company or its nominee (“DTC”) shall initially be the sole registered holder of this Warrant, subject to a Holder’s right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock” means the common stock of the Company, par value \$0.01 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Common Stock Equivalents” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Liens” means a lien, charge pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Proceeding” means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition), whether commenced or threatened.

“Registration Statement” means the Company’s registration statement on Form S-1 (File No. 333-215277).

“Rule 144” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE MKT, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, OTCQB or OTCQX (or any successors to any of the foregoing).

“Transfer Agent” means Computershare Trust Company, N.A. with a mailing address of P.O. Box 43078, Providence, RI 02940 and a facsimile number of ([●]) [●]-[●], and any successor transfer agent of the Company.

“Warrant Agent Agreement” means that certain Warrant Agent Agreement, dated as of the Initial Exercise Date, between the Company and the Warrant Agent.

“Warrant Agent” means the Transfer Agent and any successor warrant agent of the Company.

“Warrants” means this Warrant and other Common Stock Purchase Warrants issued by the Company pursuant to the Registration Statement.

Section 2. Exercise.

a) Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before close of business on the Termination Date by delivery to the Company (or such other office or agency of the Company as it may designate by notice in writing to the registered Holder at the address of the Holder appearing on the books of the Company) of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise in the form annexed hereto. Within three (3) Trading Days following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

Notwithstanding the foregoing in this Section 2(a), a holder whose interest in this Warrant is a beneficial interest in certificate(s) representing this Warrant held in book-entry form through DTC (or another established clearing corporation performing similar functions), shall effect exercises made pursuant to this Section 2(a) by delivering to DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, complying with the procedures to effect exercise that are required by DTC (or such other clearing corporation, as applicable), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agent Agreement, in which case this sentence shall not apply.

b) Exercise Price. The exercise price per share of the Common Stock under this Warrant shall be \$_____, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = the last VWAP immediately preceding the time of delivery of the Notice of Exercise giving rise to the applicable "cashless exercise", as set forth in the applicable Notice of Exercise (to clarify, the "last VWAP" will be the last VWAP as calculated over an entire Trading Day such that, in the event that this Warrant is exercised at a time that the Trading Market is open, the prior Trading Day's VWAP shall be used in this calculation);

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is three (3) Trading Days after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a Cashless Exercise) is received within three Trading Days of delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within two Trading Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(d) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

d) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

e) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date the Holder delivers an assignment form to the Company assigning this Warrant full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. If this Warrant is not held in global form through DTC (or any successor depository), this Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the original Initial Exercise Date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Warrant Agent shall register this Warrant, upon records to be maintained by the Warrant Agent for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company and the Warrant Agent may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflict of laws thereof. Each party agrees that all legal Proceedings concerning the interpretation, enforcement and defense of this Warrant shall be commenced in the state and federal courts sitting in the City of New York, Borough of Manhattan (the "New York Courts"). Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the New York Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any provision hereunder), and hereby irrevocably waives, and agrees not to assert in any suit, action or Proceeding, any claim that it is not personally subject to the jurisdiction of such New York Courts, or such New York Courts are improper or inconvenient venue for such Proceeding. Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal Proceeding arising out of or relating to this Warrant. If any party shall commence an action or Proceeding to enforce any provisions of this Warrant, then the prevailing party in such action or Proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or Proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate Proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or by e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 14 Norfolk Avenue, South Easton, Massachusetts 02375, Attention: Richard. T. Schumacher, facsimile number: ([●]) [●]-[●], email address: [●], or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number or address of such Holder appearing on the books of the Warrant Agent. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. Notwithstanding any other provision of this Warrant, where this Warrant provides for notice of any event to the Holder, if this Warrant is held in global form by DTC (or any successor depository), such notice shall be sufficiently given if given to DTC (or any successor depository) pursuant to the procedures of DTC (or such successor depository), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agency Agreement, in which case this sentence shall not apply.

i) Warrant Agent Agreement. If this Warrant is held in global form through DTC (or any successor depositary), this Warrant is issued subject to the Warrant Agent Agreement. To the extent any provision of this Warrant conflicts with the express provisions of the Warrant Agent Agreement, the provisions of this Warrant shall govern and be controlling.

j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

k) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

m) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holders of at least 50.1% of the then outstanding Warrants, provided that adjustments may be made to the Warrant terms and rights in accordance with Section 3 without the consent of the Holders.

n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

o) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

PRESSURE BIOSCIENCES, INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: PRESSURE BIOSCIENCES, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

AUTHORIZED REPRESENTATIVES

Name	Title	Signature
35		



LUCOSKY BROOKMAN LLP

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August 9, 2017

Pressure BioSciences, Inc.
14 Norfolk Avenue
South Easton, Massachusetts 02375

45 Rockefeller Plaza
Suite 2000
New York, NY 10111

RE: Amendment No. 5 to Registration Statement on Form S-1

Gentlemen:

We have acted as counsel to you, Pressure BioSciences, Inc., a Massachusetts corporation, (the “Company”) in connection with the Company’s Registration Statement on Form S-1 filed with the Securities and Exchange Commission (the “Commission”) pursuant to the Securities Act of 1933, as amended (the “Securities Act”) (File No. 333-215277) (the “Registration Statement”) with respect to (i) up to 2,777,778 shares of the Company’s common stock, \$0.01 par value per share (the “Common Stock”), (ii) warrants to purchase up to 1,388,889 shares of the Company’s common stock (the “Common Stock Warrants”), (iii) up to 416,667 shares of the Company’s common stock for which the underwriters have been granted an over-allotment option (the “Over-Allotment Shares” and together with the Common Stock, the “Shares”); (iv) warrants to purchase up to an additional 208,333 shares of the Company’s common stock issuable upon exercise for which the underwriters have been granted an over-allotment option (the “Over-Allotment Warrants” and together with the Common Stock Warrants, the “Warrants”) and (v) all shares of Company’s common stock issuable upon exercise of the Warrants (the “Warrant Shares”). The Shares, Warrants, and Warrant Shares are to be sold by the Company pursuant to the terms of an underwriting agreement to be entered into between the Company and the underwriters named therein (the “Underwriting Agreement”). This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act.

In connection with this opinion, we have examined the originals or copies certified or otherwise identified to our satisfaction of the following: (a) Articles of Organization of the Company, as amended to date, (b) By-Laws of the Company, as amended to date, and (c) the Registration Statement and all exhibits thereto. In addition to the foregoing, we also have relied as to matters of fact upon the representations made by the Company and its representatives and we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, and the conformity to original documents of all documents submitted to us certified or photostatic copies.

Based upon the foregoing and in reliance thereon, and subject to the qualifications, limitations, exceptions and assumptions set forth herein, we are of the opinion that when the Shares have been issued, delivered and paid for as contemplated in the Registration Statement and in accordance with the Underwriting Agreement,

- (1) The Shares and the Warrants will be validly issued, fully paid and non-assessable;
- (2) The Warrants will constitute valid and binding obligations of the Company enforceable against the Company in accordance with their terms; and
- (3) The Warrant Shares, when issued upon exercise of the Warrants in the manner and on the terms described in the Registration Statement and the Warrants, including receipt of the requisite consideration set forth therein, will be duly authorized, validly issued, fully paid and non-assessable.

The opinion expressed herein is limited to the laws of the Commonwealth of Massachusetts, all applicable provisions of the statutory provisions, and reported judicial decisions interpreting those laws. We are attorneys licensed to practice in the States of New York and New Jersey and our opinions herein are reliant upon the opinion provided to us by the Company’s local Massachusetts counsel. This opinion is limited to the laws in effect as of the date the Registration Statement is declared effective by the Commission and is provided exclusively in connection with the public offering contemplated by the Registration Statement.



This opinion letter speaks only as of the date hereof and we assume no obligation to update or supplement this opinion letter if any applicable laws change after the date of this opinion letter or if we become aware after the date of this opinion letter of any facts, whether existing before or arising after the date hereof, that might change the opinions expressed above.

This opinion letter is furnished in connection with the filing of the Registration Statement. Further, no portion of this letter may be quoted, circulated or referred to in any other document for any other purpose without our prior written consent.

We hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement and to the use of our name as it appears in the Prospectus included in the Registration Statement. In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder. This opinion is expressed as of the date hereof unless otherwise expressly stated, and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable laws.

Very Truly Yours,

/s/Lucosky Brookman LLP

Lucosky Brookman LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the inclusion in this Registration Statement on Form S-1 (Amendment No. 5) of our report dated March 22, 2017, except for Note 10 as to which the date is June 16, 2017, with respect to the audited consolidated financial statements of Pressure Biosciences, Inc. for the years ended December 31, 2016 and 2015. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

We also consent to the references to us under the heading "Experts" in such Registration Statement.

/s/ MaloneBailey, LLP

www.malonebailey.com

Houston, Texas

August 9, 2017
