PRESSURE BIOSCIENCES INC
Form 10-Q
November 13, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

[X] Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the quarterly period ended September 30, 2017

or

[ ] Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from _____________ to _____________

Commission File Number 001-38185

PRESSURE BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

Massachusetts	**04-2652826**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
14 Norfolk Avenue South Easton, Massachusetts	**02375**
(Address of principal executive offices)	(Zip Code)

(508) 230-1828

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

[X] Yes [ ] No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

[X] Yes [ ] No

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

Large accelerated filer [ ]	Accelerated filer [ ]	Non-accelerated filer [ ] (Do not check if a smaller reporting company)	Smaller reporting company [X]	Emerging growth company [ ]

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

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2 of the Exchange Act.

[ ] Yes [X] No

The number of shares outstanding of the Issuer's common stock as of November 7, 2017 was 1,154,422.

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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY

CONSOLIDATED BALANCE SHEETS

(UNAUDITED)

	September 30, 2017	December 31, 2016
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$18,723	$138,363
Accounts receivable, net of $28,169 reserve at September 30, 2017 and December 31, 2016	548,316	281,320
Inventories, net of $20,000 reserve at September 30, 2017 and December 31, 2016	1,122,782	905,284
Prepaid income taxes	7,482	7,405
Prepaid expenses and other current assets	146,278	258,103
Total current assets	1,843,581	1,590,475
Investment in available-for-sale equity securities	25,986	25,865
Property and equipment, net	19,004	9,413
TOTAL ASSETS	$1,888,571	$1,625,753
LIABILITIES AND STOCKHOLDERS’ DEFICIT		
CURRENT LIABILITIES		
Accounts payable	$853,173	$407,249
Accrued employee compensation	298,675	249,596
Accrued professional fees and other	1,352,658	956,884
Deferred revenue	313,992	159,654
Revolving note payable, net of unamortized debt discounts of $335,833 and $637,030, respectively	3,164,167	612,970
Related party convertible debt, net of debt discount of $65,240 and $0, respectively	225,894	-
Convertible debt, net of unamortized debt discounts of $355,375 and $2,235,839, respectively	6,315,995	4,005,702
Other debt, net of unamortized discounts of $80,747 and $380, respectively	1,952,859	238,157
Warrant derivative liability	-	1,685,108
Conversion option liability	-	951,059
Total current liabilities	14,477,413	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 $0 and $740,628, respectively	-	529,742
Deferred revenue	61,592	87,527
TOTAL LIABILITIES	14,539,005	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 September 30, 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; 80,570 shares issued and outstanding on September 30, 2017 and December 31, 2016, respectively	806	866
Series H Convertible Preferred Stock, $.01 par value; 10,000 shares authorized; 10,000 shares issued and outstanding on September 30, 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 September 30, 2017 and December 31, 2016, respectively	-	-
Series J Convertible Preferred Stock, $.01 par value; 6,250 shares authorized; 3,458 shares issued and outstanding on September 30, 2017 and December 31, 2016, respectively	34	35
Series K Convertible Preferred Stock, $.01 par value; 15,000 shares authorized; 6,816 shares issued and outstanding on September 30, 2017 and December 31, 2016, respectively	68	68
Common stock, $.01 par value; 100,000,000 shares authorized; 1,154,422 and 1,033,328 shares issued and outstanding on September 30, 2017 and December 31, 2016, respectively	11,544	10,333
Warrants to acquire common stock	9,721,627	6,325,102
Additional paid-in capital	29,976,405	27,544,265
Accumulated other comprehensive income	6,190	-
Accumulated deficit	(52,367,211)	(42,264,190)
Total stockholders' deficit	(12,650,434)	(8,383,418)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	$1,888,571	$1,625,753

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

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PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF OPERATIONS

(UNAUDITED)

	For the Three Months Ended		**For the Nine Months Ended**	
	September 30,		**September 30,**	
	2017	**2016**	**2017**	**2016**
Revenue:				
Products, services, other	$603,726	$500,949	$1,610,124	$1,429,487
Grant revenue	42,335	34,385	127,666	127,289
Total revenue	646,061	535,334	1,737,790	1,556,776
Costs and expenses:				
Cost of products and services	328,743	262,894	852,039	727,698
Research and development	239,326	268,317	744,565	925,015
Selling and marketing	301,676	224,380	814,796	609,501
General and administrative	901,588	231,550	2,655,054	1,853,010
Total operating costs and expenses	1,771,333	987,141	5,066,454	4,115,224
Operating loss	(1,125,272)	(451,807)	(3,328,664)	(2,558,448)
Other (expense) income:				
Interest expense, net	(1,554,379)	(1,116,328)	(4,431,950)	(2,961,708)
Other expense	-	(200)	(1,039)	(1,112)
Impairment loss on investment	-	-	(6,069)	-
Incentive warrants for warrant exercises	-	-	(186,802)	-
Gain on extinguishment of debt	90,862	-	90,862	-
Change in fair value of derivative liabilities	245,213	623,128	(26,014)	(412,500)
Total other expense	(1,218,304)	(493,400)	(4,561,012)	(3,375,320)
Net loss	(2,343,576)	(945,207)	(7,889,676)	(5,933,768)
Net loss per share attributable to common stockholders – basic and diluted	$(2.07)	$(0.96)	$(7.28)	$(6.81)
Weighted average common stock shares outstanding used in the basic and diluted net loss per share calculation	1,133,791	980,846	1,084,370	871,325

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

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PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(UNAUDITED)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
Comprehensive Loss				
Net loss	$(2,343,576)	$(945,207)	$(7,889,676)	$(5,933,768)
Other comprehensive loss				
Unrealized (loss) income on marketable securities	-	(22,233)	6,190	(234,972)
Comprehensive loss	$(2,343,576)	$(967,440)	$(7,883,486)	$(6,168,740)

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 Nine Months Ended September 30,	
	2017	**2016**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$(7,889,676)	$(5,933,768)
Adjustments to reconcile net loss to net cash used in operating activities:		
Common stock issued for debt extension	10,000	-
Depreciation and amortization	7,027	15,489
Accretion of interest and amortization of debt discount	3,548,244	2,848,058
Incentive warrants for warrant exercises	186,802	-
Penalty interest added to debt principal	-	41,200
Gain on extinguishment of debt	(90,862)	-
Stock-based compensation expense	318,910	282,811
Amortization of third party fees paid in common stock and warrants	-	332,700
Warrants issued for service	15,558	-
Shares issued for service	31,000	-
Impairment loss on investment	6,069	-
Change in fair value of derivative liabilities	26,014	412,500
Changes in operating assets and liabilities:		
Accounts receivable	(266,996)	(476,426)
Inventories	(217,498)	30,233
Prepaid expenses and other assets	111,748	33,948
Accounts payable	445,924	(409,175)
Accrued employee compensation	49,079	9,900
Deferred revenue and other accrued expenses	618,890	75,014
Net cash used in operating activities	(3,089,767)	(2,737,516)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property plant and equipment	(16,617)	(3,273)
Net cash used in investing activities	(16,617)	(3,273)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Net proceeds from the issuance of common stock	-	382,965
Net proceeds from related party convertible debt	-	96,667
Net proceeds from revolving note payable	2,070,000	-
Net proceeds from warrant exercises	140,215	-
Net proceeds from convertible debt	-	2,102,382
Net proceeds from non-convertible debt	2,400,752	865,152

Payments on convertible debt	(840,541)	-
Payments on non-convertible debt	(783,682)	(781,221)
Net cash provided by financing activities	2,986,744	2,665,945
NET DECREASE IN CASH	(119,640)	(74,844)
CASH AT BEGINNING OF YEAR	138,363	116,783
CASH AT END OF PERIOD	$18,723	$41,939
SUPPLEMENTAL INFORMATION		
Interest paid in cash	$282,906	$1,154
NON CASH TRANSACTIONS:		
Discount due to warrants issued with debt	668,544	-
Unrealized gain from available-for-sale equity securities	6,190	234,972
Derivative liability released upon warrant exercise	49,327	-
Debt discount from derivative liability	-	1,304,049
Cashless exercise of warrants	-	11,100
Conversion of preferred stock into common stock	55,200	63,904
Convertible debt exchanged for common stock	-	117,837
Common stock issued with debt	321,127	104,731
Common stock issued to settle non-convertible debt	-	41,200
Common stock issued in lieu of cash for interest	185,603	-
Discount due to beneficial conversion feature	-	20,721
Discount due to warrants issued with debt	-	39,755
Reclassification of derivative liabilities to equity and cumulative effect of adoption of ASU 2017-11	1,689,386	-
Discount from one-time interest	225,000	-

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

SEPTEMBER 30, 2017

(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 (45,000 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 nine months ending September 30, 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 September 30, 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 Notes 6 and 7, we received $4,610,967 in net proceeds from loans and warrant exercises in the nine months ended September 30, 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 nine months ended September 30, 2017 we received $4,610,967 in net proceeds from warrant exercises, 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 and nine months ended September 30, 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.

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 consolidated 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 have been entitled to receive fractional shares because they held a number of shares not evenly divisible by the reverse stock split ratio were automatically 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.

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.

Recent Accounting Standards

In July 2017, the FASB issued ASU 2017-11, Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of

Certain Nonpublic Entities and Certain Mandatorily Redeemable Non-controlling Interests with a Scope Exception. Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity transactions. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating Topic 480, Distinguishing Liabilities from Equity, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable non-controlling interests. The amendments in Part II of this update do not have an accounting effect. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2018 with early adoption permitted. The Company early adopted the ASU 2017-11 in the third quarter of 2017.

Adoption of ASU 2017-11

The Company changed its method of accounting for the Debentures and Warrants through the early adoption of ASU 2017-11 during the three months ended September 30, 2017 on a modified retrospective basis. Accordingly, the Company reclassified the warrant derivative and conversion option derivative liabilities to additional paid in capital on its January 1, 2017 consolidated balance sheets totaling approximately $2.6 million, reduced debt discount by approximately $0.9 million and recorded the cumulative effect of the adoption to the beginning balance of accumulated deficit of approximately $2.2 million. This resulted to an increase in stock warrants by $2.5 million and additional paid-in capital by $1.4 million. In addition, because of the modified retrospective adoption, the Company credited the change in fair value of warrant derivative and conversion option derivative liabilities on its consolidated statements of operations by $245,215 and reduced amortization of debt discount by $812,904 for the nine months ended September 30, 2017. The following table provides a reconciliation of the warrant derivative liability, convertible debt, conversion option derivative liability, stock warrant, additional paid-in capital and accumulated deficit on the consolidated balance sheet as of December 31, 2016:

	Convertible debt, current portion	Convertible debt, long term portion	Warrant Derivative Liability	Conversion Option Liability	Warrants to acquire common stock	Additional Paid-in Capital	Accumulated deficit
Balance, January 1, 2017 (Prior to adoption of ASU 2017-11)	$4,005,702	$529,742	$1,685,108	$951,059	$6,325,102	$27,544,265	$(42,264,190)
Reclassified derivative liabilities and cumulative effect of adoption	(769,316)	(154,152)	$(1,661,795)	(951,059)	$2,525,623	1,377,108	(2,213,345)
Balance, January 1, 2017 (After adoption of ASU 2017-11)	$3,236,386	$375,590	$23,313	$-	$8,850,725	$28,921,373	$(44,477,535)

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 and nine months ended September 30, 2017 and 2016. The Top Five Customers category may include federal agency revenues if applicable.

	For the Three Months Ended September 30,	
	2017	2016
Top Five Customers	73%	60%
Federal Agencies	30%	9%

	For the Nine Months Ended September 30,	
	2017	2016
Top Five Customers	38%	31%
Federal Agencies	19%	3%

The following table illustrates the level of concentration as a percentage of net accounts receivable balance as of September 30, 2017 and December 31, 2016. The Top Five Customers category may include federal agency revenues if applicable

	September 30, 2017		December, 31, 2016	
Top Five Customers	74	%	82	%
Federal Agencies	28	%	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 and maintain 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 instruments, 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 HT48 product lines.

Investment in Available-For-Sale Equity Securities

As of September 30, 2017, we held 100,250 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 September 30, 2017, our consolidated balance sheet reflected the fair value of our investment in Everest to be approximately $30,000, based on the closing price of Everest shares of $0.29 USD 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. We recorded $6,069 as an impairment loss in the first quarter of 2017. The carrying value increased in the first nine months of 2017 by $6,190 and was reflected as an unrealized gain in our Comprehensive Loss Statement.

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 and nine months ended September 30, 2017 and 2016:

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
Numerator:				
Net loss	$(2,343,576)	$(945,207)	$(7,889,676)	$(5,933,768)
Denominator for basic and diluted loss per share:				
Weighted average common stock shares outstanding	1,133,791	980,846	1,084,370	871,325
Loss per common share – basic and diluted	$(2.07)	$(0.96)	$(7.28)	$(6.81)

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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 and H2 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.

	As of September 30,	
	2017	2016
Stock options	249,636	175,642
Convertible debt	828,870	899,058
Common stock warrants	902,033	827,490
Convertible preferred stock:		
Series D Convertible Preferred Stock	25,000	25,000
Series G Convertible Preferred Stock	26,857	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	115,267	117,367
Series K Convertible Preferred Stock	227,200	227,200
	2,478,197	2,403,948

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 $139,399 and $90,500 for the three months ended September 30, 2017 and 2016, respectively. The Company recognized stock-based compensation expense of $318,910 and $282,811 for the nine months ended September 30, 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 September 30,		For the Nine Months Ended September 30,	
	2017	2016	2017	2016
Research and development	$37,345	$14,735	$76,263	$50,766
Selling and marketing	21,778	9,911	46,112	32,404
General and administrative	80,276	65,854	196,535	199,641
Total stock-based compensation expense	$139,399	$90,500	$318,910	$282,811

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. A slight change in an unobservable input like volatility could have a significant impact on the fair value measurement of the derivative liability.

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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 September 30, 2017:

		Fair value measurements at September 30, 2017 using:		
	September 30, 2017	Quoted prices in active markets (Level 1)	**Significant other observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**
Available-For-Sale Equity Securities	25,986	25,986	-	-
Total Financial Assets	$ 25,986	$25,986	$ -	$ -

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 nine months ended September 30, 2017:

	December 31, 2016	**Issuance fair value**	**Change in fair value**	**Settlement**	**Adjustment due to ASU 2017-11**	**September 30, 2017**
Series D Preferred Stock Purchase Warrants	$23,313	$ -	$26,014	$ (49,327)	-	$ -
Warrants Issued with Convertible Debt	1,661,795	-	-	-	(1,661,795)	-
Conversion Option Derivative Liabilities	951,059	-	-	-	(951,059)	-
Total Derivatives	$2,636,167	$-	$26,014	$ (49,327)	$(2,612,854)	-

Refer to this Note for accounting of early adoption of ASU 2017-11.

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	-	-	$ 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

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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 offices, warehouse and a loading dock on the first floor starting May 1, 2017 with an increase in monthly rent of $2,150.

On October 18, 2017 we signed a lease extension for our lab space in Medford, MA. The lease will now expire December 30, 2020 and requires monthly payments of $6,912.75 starting January 1, 2018 subject to annual cost of living increases.

Rental costs are expensed as incurred. During the nine months ended September 30, 2017 and 2016 we incurred $112,438 and $108,038 in rent expense, respectively for the use of our corporate office and research and development facilities.

Government Grants

We have received a $1.02 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.

On various dates for the nine months ended September 30, 2017, the Company issued 38,606 shares of common stock based on the 10-day VWAP prior to quarter end to holders of the Debentures in payment of the quarterly interest accrued from the Debentures first anniversary date through March 31, 2017 for an aggregate amount of $309,465. We recognized a $123,862 gain on extinguishment of debt by calculating the difference of the shares valued on the issuance date and the amount of accrued interest through March 31, 2017.

At any time after the Issuance Date until the maturity 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.

On September 11, 2017, we notified Debenture holders that their Debentures will be extended 180 days beyond the original maturity date as permitted in the Debenture agreement. We will continue to pay interest on the Debentures until the extended maturity date. We accounted for the Debenture extensions as debt modifications and not extinguishment of debt since the changes in fair value are not substantial in accordance with ASC 470-50. We started amortizing the remaining unamortized discount as of September 11, 2017 over the new term which extends 180 days beyond the original maturity date.

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. The warrants were issued pursuant to an exemption to the registration requirements of the Securities Act and are considered restricted securities. Upon exercise, the warrant shares will be considered restricted securities and will be issued with a restrictive legend unless the shares have been registered or the legend can be removed pursuant to Rule 144 promulgated pursuant to the Securities Act.

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.

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 $4,736,571 of the debt discount to interest expense through the third 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 reclassified the fair value

of the warrant derivative liabilities to stockholders' equity when we adopted ASU 2017-11.

The specific terms of the convertible debts and outstanding balances as of September 30, 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	30 months[1]	$2,180,000	$2,180,000	$218,000 [2]	10 %[3]	$388,532	$ 2,163,074
September 25, 2015	30 months[1]	1,100,000	1,100,000	110,000 [2]	10 %[3]	185,956	1,022,052
October 2, 2015	30 months[1]	150,000	150,000	15,000 [2]	10 %[3]	26,345	140,832
October 6, 2015	30 months[1]	30,000	30,000	3,000 [2]	10 %[3]	5,168	26,721
October 14, 2015	30 months[1]	50,000	50,000	5,000 [2]	10 %[3]	8,954	49,377
November 2, 2015	30 months[1]	250,000	250,000	25,000 [2]	10 %[3]	43,079	222,723
November 10, 2015	24 months	50,000	50,000	5,000 [2]	10 %[3]	8,790	46,984
November 12, 2015	24 months	215,000	215,000	21,500 [2]	10 %[3]	38,518	212,399
November 20, 2015	24 months	200,000	200,000	20,000 [2]	10 %[3]	37,185	200,000
December 4, 2015	24 months	170,000	170,000	17,000 [2]	10 %[3]	37,352	170,000
December 11, 2015	24 months	360,000	360,000	36,000 [2]	10 %[3]	75,449	360,000
December 18, 2015	24 months	55,000	55,000	5,500 [2]	10 %[3]	11,714	55,000
December 31, 2015	24 months	100,000	100,000	10,000 [2]	10 %[3]	20,634	100,000
January 11, 2016	24 months	100,000	100,000	10,000 [2]	10 %[3]	24,966	80,034
January 20, 2016	24 months	50,000	50,000	5,000 [2]	10 %[3]	9,812	40,188
January 29, 2016	24 months	300,000	300,000	30,000 [2]	10 %[3]	60,887	239,113
February 26, 2016	24 months	200,000	200,000	20,000 [2]	10 %[3]	43,952	156,048
March 10, 2016	24 months	125,000	125,000	12,500 [2]	10 %[3]	18,260	106,740
March 18, 2016	24 months	360,000	360,000	36,000 [2]	10 %[3]	94,992	265,008
March 24, 2016	24 months	106,667	106,667	10,667 [2]	10 %[3]	15,427	91,240
March 31, 2016	24 months	177,882	177,882	17,788 [2]	10 %[3]	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	-	85,541	9 %	-	65,972
April 3, 2017	8 months	50,000	-	-	10 %	-	-

$7,179,549	$ 6,329,549	$718,496	$1,158,408	$ 6,040,469

1 The loan term was extended by 180 days.

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

3 The annual interest starts accruing in the second year.

The closings above included a total of approximately $291,000 of 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 original Issue Date until the maturity 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 6, 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 1,667 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 12% annual 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. We accounted for the loan extension as a debt modification.

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 the investor relations firm agreed to forgive the loan. Since we did not receive any cash in connection with the note and neither did the IR firm provide any services, the forgiveness did not result in any gain upon termination of the agreement.

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 $3,500,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 250,000 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.

The Revolving Note was amended on May 2, 2017 to increase the aggregate principal amount to $3,000,000, to issue 16,667 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." The fair value of the 16,667 shares issued was accounted for as a note discount and are amortized to interest expense over the life of the loan. We evaluated the accounting impact of the Revolving Note amendment and deemed that the amendment did not have a material impact on our consolidated financial statements.

The Revolving Note was further amended on August 18, 2017 to increase the aggregate principal amount to $3,500,000 with all other terms unchanged.

In the event that a Qualified Offering had occurred after July 25, 2017, but prior to the Maturity Date, within seven (7) Business Days of the closing of the Qualified Offering, the Company was to 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. A Qualified Offering did not occur on or prior to the Maturity Date.

In the event that a Qualified Offering had not occurred after July 25, 2017, 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 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 Maturity Date divided by (y) the VWAP of the Company's common stock for the last ten trading days preceding the Maturity Date. A Qualified Offering did not occur on or prior to the Maturity 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. 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 $296,500, the one-time interest of $350,000 and the fair value of the 250,000 warrants issued to the Investor amounting to $1,148,275 were recorded as debt discounts and amortized over the term of the revolving note. The unamortized debt discounts as of September 30, 2017 related to the Revolving Note amounted to $335,833.

The Revolving Note was still outstanding as of October 28, 2017. We continue to accrue interest on the note.

The following table provides a summary of the changes in convertible debt and revolving note payable, net of unamortized discount, during 2017:

	2017
Balance at January 1,	$5,273,937
Adjustment due to ASU 2017-11	923,468
Issuance of convertible debt, face value	2,300,000
Forgiveness of Debt	(50,000)
Deferred financing cost	(180,000)
Debt discount related to one-time interest charge	(225,000)
Debt discount from incentive shares to increase the Revolving Note aggregate principal limit	(150,000)
Debt discount from shares and warrants issued with the notes	(668,544)
Payments	(840,541)
Accretion of interest and amortization of debt discount to interest expense through September 30,	3,322,736
Balance at September 30,	9,706,056
Less: current portion	9,706,056
Convertible debt, long-term portion	$-

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Other Notes

On January 6, 2016 we signed a Merchant Agreement with a lender. Under the agreement we received $250,000 in exchange for second position 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 is no longer outstanding as of September 30, 2017.

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 September 30, 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 third position rights to all customer receipts which is collected at the rate of $1,386 per business day. As of September 30, 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 no longer outstanding as of September 30, 2017.

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 each investor 5,667 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. We received a one-month extension on one loan and two one-month extensions on the other. Each extension required a 10% fee to the lender. We treated these extensions as loan extinguishments and accordingly wrote off the original debt and recorded new debt to include the extension fees as part of the principal amount. The extension fees of $33,000 were recorded as losses on extinguishment of debt in the consolidated financial statements. One loan remains outstanding as of September 30, 2017 with a balance of $132,000 that was subsequently paid off entirely by October 31, 2017. We amortized $59,794 of debt discounts in the nine months ended September 30, 2017. The unamortized debt discounts as of September 30, 2017 were $3,822.

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. The loan was no longer outstanding as of September 30, 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 $46,748 as a debt discount that will be amortized to interest expense during the term of the loan. The loan still remains outstanding as of September 30, 2017 with a balance of $250,000. We amortized $62,651 of the debt discount in the nine months ended September 30, 2017. The unamortized debt discount as of September 30, 2017 was $14,097. In the event of default and at the option of the holder, the loan is convertible into common stock at a 35% discount to the lowest closing stock price for the 15 trading days prior to conversion.

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 September 30, 2017 with a balance of $170,000. We amortized $41,025 of debt discounts in the nine months ended September 30, 2017. The unamortized debt discount as of September 30, 2017 was $11,054.

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 was repaid, we agreed that over the next one hundred eighty (180) days to 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 5,833 shares including the closing shares since inception of the loan. We recorded the fair value of the 5,833 shares amounting to $32,684 as a debt discount that will be amortized to interest expense during the term of the loan. We amortized $45,264 of debt discounts in the nine months ended September 30, 2017. The unamortized debt discount as of September 30, 2017 was $12,420. In the event of default and at the option of the holder, the loan is convertible into common stock at a 35% discount to the lowest closing stock price for the 15 trading days prior to conversion.

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. The unamortized debt discount as of September 30, 2017 was zero. We used these proceeds to pay off in full our September 2016 loan of $589,189. The loan remains outstanding and accrues interest at a 20% annual rate from the maturity date.

On June 6, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of $250,000. The lender is entitled to receipts which are collected at the rate of $1,833 per business day. 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. The unamortized debt discount as of September 30, 2017 was $2,357. The loan remains outstanding as of September 30, 2017 with a balance of approximately $157,820.

On June 21, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of $150,000. The lender is entitled to receipts which are collected at the rate of $1,361 per business day. The Company paid $1,498 in fees in connection with this loan. The unamortized debt discount as of September 30, 2017 was $509. The loan remains outstanding as of September 30, 2017 with a balance of approximately $81,000. We accounted for the Merchant Agreement as a loan under ASC 860 because while we provided rights to current and future receipts, we still had control over the receipts.

On July 17, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of $125,000. The lender is entitled to receipts which are collected at the rate of $1,250 per business day. The Company paid $1,250 in fees in connection with this loan. The loan remains outstanding as of September 30, 2017 with a balance of approximately $82,000.

On August 1, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of $75,000. The loan includes $18,750 representing an original issue discount, interest and fees resulting in a total payable of $93,750. The loan remains outstanding as of September 30, 2017 with a balance of approximately $56,000.

On September 12, 2017, we received a 9-month non-convertible loan of $225,000 from a privately-held investment firm. The loan earns an annual interest rate of 10%. The Company paid total fees of $25,000 including original issue discount and other costs related to this loan. We agreed to issue 3,333 shares at closing. We recorded the fair value of the shares as a debt discount that will be amortized to interest expense during the term of the loan. We amortized $2,505 of debt discounts in the nine months ended September 30, 2017. The unamortized debt discount as of September 30, 2017 was $35,495. In the event of default and at the option of the holder, the loan is convertible into common stock at a 35% discount to the average of the two lowest daily volume weighted average closing stock price for the 20 trading days prior to conversion.

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 September 30, 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 September 30, 2017, options to acquire 35,274 shares were outstanding under the Plan.

At the Company's December 12, 2013 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 September 30, 2017, options to acquire 84,425 shares were outstanding under the 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 September 30, 2017, non-qualified options to acquire 129,937 shares were outstanding under the 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:

	Stock Options Weighted Average		Warrants Weighted Average			Total
	Shares	Price per share	Shares	Price per share	Shares	Exercisable
Balance outstanding, 12/31/16	175,642	$12.60	881,990	$12.00	1,057,632	991,032

Granted	87,198	8.40	230,610	11.40	317,808	
Exercised	—		(19,889)	7.50	(19,889)	
Expired	(3,202)	30.00	(190,678)	11.70	(193,880)	
Forfeited	(10,002)	10.10	—	—	(10,002)	
Balance outstanding, 9/30/2017	249,636	$10.93	902,033	$12.00	1,151,669	1,061,140

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Range of Exercise Prices	Options Outstanding Weighted Average Number of Options	Remaining Contractual Life (Years)	Exercise Price	Options Exercisable Weighted Average Number of Options	Remaining Contractual Life (Years)	Exercise Price
$7.50 - $11.99	135,524	8.5	$ 8.63	70,995	7.7	$ 8.83
12.00 – 14.99	88,705	8.0	12.00	62,705	7.9	12.00
15.00 – 17.99	7,547	4.9	15.00	7,547	4.9	15.00
18.00 – 20.99	12,854	2.4	18.00	12,854	2.4	18.00
21.00 – 30.00	5,006	2.9	30.00	5,006	2.9	30.00
$7.50 - $30.00	249,636	7.8	$ 10.93	159,107	7.0	$ 11.78

As of September 30, 2017, the total estimated fair value of unvested stock options to be amortized over their remaining vesting period was $488,912. The non-cash, stock-based compensation expense associated with the vesting of these options is expected to be $87,359 remaining in 2017, $272,539 in 2018, $106,477 in 2019 and $22,537 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 September 30, 2017 was zero. The aggregate intrinsic value associated with the warrants outstanding and exercisable as of September 30, 2017 was zero.

In January 2017, we issued warrants to purchase 3,334 shares of restricted common stock with a fair value of $15,558 to an investor relations firm for services performed.

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.

On June 9, 2017, one shareholder converted 6,000 shares of Series G Convertible Preferred Stock into 2,000 shares of common stock and converted 6,300 shares of Series J Convertible Preferred Stock into 2,100 shares of common stock.

On various dates for the nine months ended September 30, 2017, the Company issued 38,606 shares of common stock based on the 10-day VWAP prior to quarter end to holders of the Debentures in payment of the quarterly interest

accrued from the Debentures first anniversary date through March 31, 2017 for an aggregate amount of $309,466. We recognized a $123,862 gain on extinguishment of debt by calculating the difference of the shares valued on the issuance date and the amount of accrued interest through March 31, 2017.

On April 1, 2017, we issued 1,667 shares of restricted common stock to an investor relations firm and recorded the common stock's fair value of $15,000 as administrative expense in the nine months ended September 30, 2017.

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 was repaid, we agreed that over the next one hundred eighty (180) days to 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 5,833 shares including the closing shares since inception of the loan.

The Revolving Note was amended on May 2, 2017 to increase the aggregate principal amount to $3,000,000. In exchange for this increase, we agreed to issue 16,667 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 a qualified offering, and to change the trigger date in the Revolving Note from April 28, 2017 (the six month anniversary of October 28, 2016) to July 25, 2017. The Revolving Note was further amended on August 18, 2017 to increase the aggregate principal amount to $3,500,000 with all other terms unchanged.

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. We paid $8,949 to a broker in connection with the warrant exercises. 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. We determined the fair value of $186,802 for these warrants and recorded the value as other expenses.

On September 12, 2017, we received a 9-month non-convertible loan of $225,000 from a privately-held investment firm. The loan earns an annual interest rate of 10%. The Company paid total fees of $25,000 including original issue discount and other costs related to this loan. We agreed to issue 3,333 shares at closing. We recorded the fair value of the shares amounting to $13,000 as a debt discount that will be amortized to interest expense during the term of the loan.

On September 20, 2017, we issued 4,000 shares of restricted common stock to an investor relations firm and recorded the common stock's fair value of $16,000 as administrative expense in the nine months ended September 30, 2017.

8) Subsequent Events

On September 29, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of $75,000 that was disbursed to us on October 4, 2017. The lender is entitled to receipts which are collected at the rate of $1,200 per business day for approximately four months. The Company paid $1,500 in fees in connection with this loan. We accounted for the Merchant Agreement as a loan under ASC 860 because while we provided rights to current and future receipts, we still had control over the receipts.

On October 11, 2017, we received a one-year convertible loan of $85,000 from a privately-held investment firm. The Company paid total fees of $4,250 related to this loan. This loan was repaid in full on October 27, 2017.

On October 25, 2017, we signed a Merchant Agreement with a lender. Under the agreement we received a loan of $110,000. The lender is entitled to receipts which are collected at the rate of $1,539 per business day for approximately five months. The Company paid $1,250 in fees in connection with this loan. We accounted for the Merchant Agreement as a loan under ASC 860 because while we provided rights to current and future receipts, we still had control over the receipts.

On October 25, 2017, we received a nine month convertible loan of $103,000 from a privately-held investment firm. The Company paid total fees of $3,000 related to this loan and will pay 12% interest annually. Six months after the issuance date and at the option of the holder, the loan is convertible into common stock at a 42% discount to the average of the two lowest closing stock prices for the 15 trading days prior to conversion.

On October 27, 2017, we received a one-year convertible loan of $170,000 less $4,250 fees and less $85,000 used to retire the convertible note dated October 11, 2017. Six months after the issuance date and at the option of the holder, the loan is convertible into common stock at a 38% discount to the lowest daily volume weighted average closing stock price for the 15 trading days prior to conversion.

On November 2, 2017, EMA Financial, LLC issued us a one-year convertible loan of $150,000 less $7,500 fees. The loan is convertible at $7.50 per share and has 5% annual interest rate. In the event of default and at the option of the holder, the loan is convertible into common stock at a 35% discount to the lowest daily volume weighted average closing stock price for the 20 trading days prior to conversion.

ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In some cases, forward-looking statements are identified by terms such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential" and si expressions intended to identify forward-looking statements. Such 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 PCT has achieved initial market acceptance in the mass spectrometry and other markets;

the expected increase in the number of pressure cycling technology (*"PCT")*and constant pressure (*"CP"*) 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.

These forward-looking statements are only predictions and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements, expressed or implied, by such forward-looking statements. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this Quarterly Report on Form 10-Q. Except as otherwise required by law, we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained in this Quarterly Report on Form 10-Q to reflect any change in our expectations or any change in events, conditions or circumstances on which any of our forward-looking statements are based. Factors that could cause or contribute to differences in our future financial and other results include those discussed in the risk factors set forth in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2016. We qualify all of our forward-looking statements by these cautionary statements.

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 45,000 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 deoxyribonucleic acid ("*DNA*"), ribonucleic acid ("*RNA*"), proteins, lipids and small molecules. Our laboratory instrument, the Barocycler®, and our internally developed consumables product line, which include our Pressure Used to Lyse Samples for Extraction ("*PULSE*") tubes, and other processing tubes, and application specific kits such as consumable products and reagents, together make up our PCT Sample Preparation System ("*PCT SPS*").

We have experienced negative cash flows from operations with respect to our pressure cycling technology business since our inception. As of September 30, 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 September 30, 2017, we believe we will have the cash resources that will enable us to continue to fund normal operations into the foreseeable future.

We need substantial additional capital to fund normal operations in future periods. If we are able to obtain additional capital or otherwise increase our revenues, we may increase spending in specific research and development applications and engineering projects and may hire additional sales personnel or invest in targeted marketing programs. 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.

We have 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, 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 molecules;
- pathogen inactivation;
- protein purification;
- control of chemical reactions, particularly enzymatic; and
- immunodiagnostics.

We reported a number of accomplishments in the first nine months of 2017:

On November 1, 2017, the Company announced it had initiated an aggressive marketing and sales strategy expected to drive significant expansion in China.

On October 18, 2017, the Company and Phasex Corporation announced a strategic collaboration addressing broad markets for stable, water-soluble nanoemulsions.

On October 10, 2017, the Company announced that its penetration into the European biopharma and high pressure markets was continuing to expand via multiple scientific presentations in Germany, Poland, and Ireland.

On October 2, 2017, the Company announced it was issued two patents on its widely-applicable, high pressure-based Ultra Shear Technology. PBI believes that UST can be used to create or improve a broad range of medical, consumer, and industrial products through the preparation of high quality nanoemulsions and “clean label” food.

On September 18, 2017, the Company announced that the Barocycler 2320EXTREME was named a finalist in the prestigious 2017 R&D 100 Awards. Known as the “Oscars of Innovation”, the R&D 100 Awards recognize the top 100 revolutionary technologies of the past year.

On June 5, 2017, the Company announced that Professor Ruedi Aebersold, a worldwide expert in proteomics and one of PBI’s most well-known clients, received the prestigious Karger Medal for significant contributions to the development of new bioanalytical methods.

On June 2, 2017, the Company announced a one-for-thirty reverse split of our common stock, to become effective on June 5, 2017. Please see the Company’s second quarter Form 10Q for more details.

On April 10, 2017, the Company announced that Joseph Damasio, Jr. had joined the Company as its full-time Chief Financial Officer and Vice President of Finance.

On March 23, 2017, the Company announced that it had significantly bolstered its marketing and sales capabilities by contracting with EKG Sales Associates, a lead generation company and by hiring two of its planned four additional field sales directors.

On March 1, 2017, the Company announced that its Barocycler 2320EXTREME had been named the "Best New Instrument for Sample Preparation 2017" by Corporate America News ("Corp America") as part of the publication's 2017 North American Excellence Awards.

On February 2, 2017, the Company announced that it had achieved CE Marking for the Barocycler 2320EXTREME, the Company's recently released, next-generation PCT-based sample preparation instrument. CE Marking permits PBI to begin sales of the Barocycler 2320EXT to the 31 countries of the European Economic Area.

Results of Operations

Comparison for the three months ended September 30, 2017 ("Q3 2017") and 2016 ("Q3 2016")

Total Revenue

We recognized total revenue of $646,061 for Q3 2017 compared to $535,334 for Q3 2016, an increase of $110,727 or 21%. This increase was primarily attributable to increases in both instrument and consumable sales.

Products, Services, Other. Revenue from the sale of products and services increased 21% to $603,726 for Q3 2017 compared to $500,949 for the same period in 2016. Sales of consumables increased to an all-time record of $84,594 for Q3 2017 compared to $32,811 during the same period in 2016, an increase of 158%. Products, Services, and Other Revenue included $60,000 from non-cash instrument transactions in the current quarter. Revenue from non-cash instrument transactions was recognized on the fair value of the assets involved per ASC 845.

Grant Revenue. During the three months ended September 30, 2017, we recorded grant revenue of $42,335 compared to grant revenue of $34,385 in the comparable period in 2016, an increase of $7,950 or 23%.

Cost of Products and Services

The cost of products and services was $328,743 for the three months ended September 30, 2017 compared to $262,894 for the comparable period in 2016. Gross profit margin on products and services decreased slightly to 46% for Q3 2017 compared to 47% for the prior year period.

Research and Development

Research and development expenditures were $239,326 during the three months ended September 30, 2017 as compared to $268,317 in the same period in 2016, a decrease of $28,991 or 11%. The prior period included one-time expenditures related to efforts to get the Barocycler 2320EXTREME CE Marked.

Research and development expense recognized in the three months ended September 30, 2017 and 2016 included $37,345 and $14,735 of non-cash, stock-based compensation expense, respectively.

Selling and Marketing

Selling and marketing expenses increased to $301,676 for the three months ended September 30, 2017 from $224,380 for the comparable period in 2016, an increase of $77,296 or 34%. This increase was primarily attributable to expansion of the company's sales force from one to five field sales directors during Q3 2017, plus recruitment fees.

During the three months ended September 30, 2017 and 2016, selling and marketing expense included $21,778 and $9,911 of non-cash, stock-based compensation expense, respectively.

General and Administrative

General and administrative costs totaled $901,588 for Q3 2017 compared to $231,550 for the comparable period in 2016 (Q3 2016 included approximately $400,000 of credits received from charges incurred several years earlier with a former professional service provider). Without these credits, the increase in General and Administrative expenses for Q3 2017 was approximately $270,000. This increase included one-time support activities related to our failed $12.5 million financing and concomitant up-list, including investor and public relations, the reverse stock split, consulting charges, and travel expenses. The increase in Q3 2017 expenses also included costs related to the hire of a chief financial officer, the complete over-haul of our website, and other activities that we believed would augment and support our 2017 fund raising and business growth efforts.

During the three months ended September 30, 2017 and 2016, general and administrative expense included $80,276 and $65,854 of non-cash, stock-based compensation expense, respectively.

Operating Loss

Our operating loss was $1,125,272 for the three months ended September 30, 2017 compared to $451,807 for the comparable period in 2016. This increase was due primarily to the one-time credits received from a former professional service provider in Q3 2016, headcount increases in sales and marketing during Q3 2017, and charges related to our failed $12.5 million financing and concomitant up-list.

Other Income (Expense), Net

Interest (Expense) Income

Interest expense was $1,554,381 for the three months ended September 30, 2017 compared to interest expense of $1,116,328 for the three months ended September 30, 2016. Interest expense reflected amortization of debt discounts related primarily to the sale of senior secured convertible debentures. The increase is primarily from deferred finance charges on our Revolving Note that closed October 2016 and amended in 2017 and discussed in Note 6 of the accompanying consolidated financial statements.

Change in fair value of warrant derivative liability

During the three months ended September 30, 2017, we reclassified non-cash charges for the six months ended June 30, 2017 of $288,886 for the Debenture warrant revaluation to stockholders' equity based on new guidance in 2017. We recorded $227,131 non-cash income in the prior comparable period. 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 September 30, 2017, we reclassified non-cash income for the six months ended June 30, 2017 of $43,673 for conversion option revaluation to stockholders' equity based on new guidance in 2017. For the three months ended September 30, 2016 we recorded non-cash income $395,997 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.

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Comparison for the nine months ended September 30, 2017 and 2016

Total Revenue

We recognized total revenue of $1,737,790 for the nine months ended September 30, 2017 as compared to $1,556,776 during the nine months ended September 30, 2016, an increase of $181,014 or 12%. 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 13% to $1,610,124 for the first nine months of 2017 compared to $1,429,487 during the same period of 2016. This increase was primarily attributable to sales of the recently released Barocycler 2320EXT units. Sales of consumables were $200,233 for the nine month period ended September 30, 2017 compared to $149,819 during the same period in 2016, an increase of 34%.

Grant Revenue. During the first three quarters of 2017, we recorded grant revenue of $127,666 compared to grant revenue of $127,289 for the comparable period in 2016.

Cost of Products and Services

The cost of products and services was $852,039 for the nine month period ended September 30, 2017 compared to $727,698 for the comparable period in 2016. Gross profit margin on products and services was 47% for the nine months ended September 30, 2017, as compared to 49% for the prior period, a minimal decrease.

Research and Development

Research and development expenditures were $744,565 during the first nine months of 2017 compared to $925,015 during the same period in 2016, a decrease of $180,450 or 20%. The prior period included one-time expenditures related to our efforts to get the Barocycler 2320EXTREME CE Marked.

Research and development expense recognized in the nine months ended September 30, 2017 and 2016 included $76,263 and $50,766 of non-cash, stock-based compensation expense, respectively.

Selling and Marketing

Selling and marketing expenses increased to $814,796 for the nine months ended September 30, 2017 from $609,501 for the comparable period in 2016, an increase of $205,295 or 34%. This increase is primarily attributable to expansion of the company's sales force by four individuals plus recruitment fees.

During the nine months ended September 30, 2017 and 2016, selling and marketing expense included $46,112 and $32,404 of non-cash, stock-based compensation expense, respectively.

General and Administrative

General and administrative costs totaled $2,655,056 for the nine months ended September 30, 2017 compared to $1,853,010 for the comparable period in 2016, an increase of $802,046 (Q1-Q3 2016 included approximately $400,000 of credits received from charges incurred several years earlier with a former professional service provider. Without these credits, the increase in General and Administrative expenses for Q1-Q3 2017 was approximately $400,000.) This increase included one-time support activities related to our failed $12.5 million financing and concomitant up-list, including investor and public relations, the reverse stock split, consulting charges, and travel expenses. The increase in Q1-Q3 2017 expenses also included costs related to the hire of a chief financial officer, the complete over-haul of our website, and other activities that we believed would augment and support our 2017 fund raising and business growth efforts.

During the nine months ended September 30, 2017 and 2016, general and administrative expense included $196,535 and $199,641 of non-cash, stock-based compensation expense, respectively.

Operating Loss

Our operating loss was $3,328,666 for the nine months ended September 30, 2017 compared to $2,558,448 for the comparable period in 2016. This 30% increase was primarily due to the hiring of four field sales directors, costs related to our failed $12.5 million financing and concomitant up-list, the hire of a CFO, and other expenses related to the growth of the business. Our Q1-Q3 2017 operating loss increase was also due to the approximately $400,000 of credits received from charges incurred with a former professional service provider in the prior year period.

Other Income (Expense), Net

Interest (Expense) Income

Interest expense was $4,431,950 for the nine months ended September 30, 2017 as compared to interest expense of $2,961,708 for the nine months ended September 30, 2016. The increase in interest expense is primarily from the amortization of debt discounts relating to the sale of senior secured convertible debentures and other convertible and non-convertible notes. See Note 6 for ASU 2017-11 early adoption accounting impact.

Change in fair value of warrant derivative liability

We adopted new guidance early relating to derivative accounting in 2017. Accordingly, we did not record a change in fair value measurement for the nine months ended September 30, 2017.

Change in fair value of conversion option liability

We adopted new guidance early relating to derivative accounting in 2017. Accordingly, we did not record a change in fair value measurement for the nine months ended September 30, 2017.

Incentive warrants for warrant exercises

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. We determined the fair value of $186,802 for these warrants and recorded the value as other expenses.

Liquidity and Financial Condition

We have experienced negative cash flows from operations with respect to our pressure cycling technology business since our inception. As of September 30, 2017, we did not have adequate working capital resources to satisfy our current liabilities and as a result, we have 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 of the accompanying consolidated financial statements, we received $4,610,967 in net proceeds from loans and warrant exercises in the first nine months of 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 nine months ended September 30, 2017 was $3,139,767 as compared to $2,737,516 for the nine months ended September 30, 2016. We had a slightly higher operating loss in the current period because of the reasons previously detailed, plus additional interest expense.

Net cash used in investing activities for the nine months ended September 30, 2017 totaled $16,617 compared to $3,273 in the prior period. Cash capital expenditures included laboratory equipment and IT equipment.

Net cash provided by financing activities for the nine months ended September 30, 2017 was $3,036,744 as compared to $2,665,945 for the same period in the prior year. The cash from financing activities in the period ending September 30, 2017 included $2,070,000 from our Revolving Note and $140,215 from warrant exercises. We also received $2,400,752 from non-convertible debt, net of fees, less payment on non-convertible debt of $783,682 and payment on convertible debt of $840,541. The prior period included proceeds from senior secured convertible debt.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

This Item 3 is not applicable to us as a smaller reporting company and has been omitted.

ITEM 4. CONTROLS AND PROCEDURES

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Securities Exchange Act of 1934 filings are recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our President and Chief Executive Officer (Principal Executive Officer) and Chief Financial Officer (Principal Financial Officer), as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, as ours are designed to do, and management was necessarily required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As of September 30, 2017, we carried out an evaluation, under the supervision and with the participation of our management, including our Principal Executive Officer and Principal Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934. Based upon that evaluation, our Principal Executive Officer and Principal Financial Officer concluded that our disclosure controls and procedures were not effective.

Our conclusion that our disclosure controls and procedures were not effective as of September 30, 2017 is due to the continued presence of the material weaknesses in our internal control over financial reporting identified in our Annual Report on Form 10-K for the year ended December 31, 2016. These material weaknesses are the following:

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 preventative controls to properly safeguard Company assets.

Management has identified a lack of sufficient personnel in the accounting function due to our limited resources with appropriate skills, training and experience to perform the review processes to ensure the complete and proper application of generally accepted accounting principles, particularly as it relates to valuation of warrants and other complex debt /equity transactions. Specifically, this material weakness resulted in audit adjustments to the annual consolidated financial statements and revisions to related

disclosures, valuation of warrants and other equity transactions.

Limited policies and procedures that cover recording and reporting of financial transactions.

Lack of multiple levels of review over the financial reporting process

We continue to plan to remediate those material weaknesses as follows:

Improve the effectiveness of the accounting group by augmenting our existing resources with additional consultants or employees to assist in the analysis and recording of complex accounting transactions, and to simultaneously achieve desired organizational structuring for improved segregation of duties. We plan to mitigate this identified deficiency by hiring an independent consultant once we generate significantly more revenue or raise significant additional working capital.

Improve expert review and achieve desired segregation procedures by strengthening cross approval of various functions including quarterly internal audit procedures where appropriate.

During the period covered by this Report, we implemented and performed additional substantive procedures, such as supervisory review of work papers and consistent use of financial models used in equity valuations, to ensure our consolidated financial statements as of and for the three month period ended September 30, 2017, are fairly stated in all material respects in accordance with GAAP. We have not, however, been able to fully remediate the material weaknesses due to our limited financial resources. Our remediation efforts are largely dependent upon our securing additional financing to cover the costs of implementing the changes required. If we are unsuccessful in securing such funds, remediation efforts may be adversely affected in a material manner.

Except as described above, there have been no changes in our internal controls over financial reporting that occurred during the period ended September 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

PART II. OTHER INFORMATION

Item 1. 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, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of the executive officers of our company or any of our subsidiaries, threatened against or affecting our company, our common stock, any of our subsidiaries or of our companies or our subsidiaries' officers or directors in their capacities as such, in which an adverse decision could have a material adverse effect.

Item 1A. Risk Factors

Factors that could cause or contribute to differences in our future financial and operating results include those discussed in the risk factors set forth in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2016. The risks described in our Form 10-K and this Report are not the only risks that we face. Additional risks not presently known to us or that we do not currently consider significant may also have an adverse effect on the Company. If any of the risks actually occur, our business, results of operations, cash flows or financial condition could suffer.

There have been no material changes to the risk factors set forth in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2016.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

The Revolving Note discussed in Note 6 of the accompanying consolidated financial statements was amended on May 2, 2017 to increase the aggregate principal amount to $3,000,000, to issue 16,667 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 a Qualified Offering, and to change the trigger date in the Revolving Note from April 28, 2017 (the six 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.

For the three months ended September 30, 2017, we received $750,000 pursuant to the Revolving Note as amended and we issued to the Investor warrants to purchase 62,500 shares of our Common Stock at an exercise price per share equal to $12.00 per share.

On September 12, 2017, we received a 9-month non-convertible loan of $225,000 from a privately-held investment firm. The loan earns an annual interest rate of 10%. The Company paid total fees of $25,000 including original issue discount and other costs related to this loan. We agreed to issue 3,333 shares at closing. We recorded the fair value of the shares amounting to $13,000 as a debt discount that will be amortized to interest expense during the term of the loan.

Item 3. Defaults upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibits

31.1*	Principal Executive Officer and Principal Financial Officer Certification Pursuant to Item 601(b)(31) of Regulation S-K, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Principal Financial Officer Certification Pursuant to Item 601(b)(31) of Regulation S-K, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Principal Executive Officer Certification Pursuant to Item 601(b)(32) of Regulation S-K, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Principal Financial Officer Certification Pursuant to Item 601(b)(32) of Regulation S-K, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

** In accordance with SEC Release 33-8238, Exhibits 32.1 and 32.2 are furnished and not filed.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

PRESSURE BIOSCIENCES, INC.

Date: November 13, 2017 By: */s/ Richard T. Schumacher*
Richard T. Schumacher
President & Chief Executive Officer
(Principal Executive Officer)

Date: November 13, 2017 By: */s/ Joseph L. Damasio, Jr.*
Joseph L. Damasio, Jr.
Vice President of Finance & Chief Financial Officer
(Principal Financial Officer)