

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2023

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

(State or other jurisdiction of
incorporation or organization)

04-2652826

(I.R.S. Employer
Identification No.)

14 Norfolk Avenue

South Easton, Massachusetts

(Address of principal executive offices)

02375

(Zip Code)

(508) 230-1828

(Registrant's telephone number, including area code)

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

Title of each class

N/A

Trading Symbol(s)

N/A

Name of each exchange on which registered

N/A

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

☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files).

☒ 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," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

☐

Accelerated filer

☐

Non-accelerated Filer

☒

Smaller Reporting Company

☒

Emerging Growth Company

☐

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

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

☐ Yes ☒ No

The number of shares outstanding of the Issuer's common stock as of May 10, 2023 was 16,772,761.

TABLE OF CONTENTS

	<u>Page</u>
<u>PART I - FINANCIAL INFORMATION</u>	3
<u>Item 1. Unaudited Financial Statements</u>	3
<u>Consolidated Balance Sheets as of March 31, 2023 and December 31, 2022</u>	3
<u>Consolidated Statements of Operations for the Three Months Ended March 31, 2023 and 2022</u>	4
<u>Consolidated Statements of Cash Flows for the Three Months Ended March 31, 2023 and 2022</u>	5
<u>Consolidated Statements of Changes in Stockholders' Deficit for the Three Months Ended March 31, 2023 and 2022</u>	6
<u>Notes to Unaudited Consolidated Financial Statements</u>	7
<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	22
<u>Item 3. Quantitative and Qualitative Disclosure About Market Risk</u>	25
<u>Item 4. Controls and Procedures</u>	25
<u>PART II - OTHER INFORMATION</u>	26
<u>Item 1. Legal Proceedings</u>	26
<u>Item 1A. Risk Factors</u>	26
<u>Item 2. Unregistered Sales of Equity Securities and Use of Proceeds</u>	26
<u>Item 3. Defaults Upon Senior Securities</u>	27
<u>Item 4. Mine Safety Disclosures</u>	27
<u>Item 5. Other Information</u>	27
<u>Item 6. Exhibits</u>	27
<u>SIGNATURES</u>	28

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

**PRESSURE BIOSCIENCES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(UNAUDITED)**

	March 31, 2023	December 31, 2022
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 239,023	\$ 3,865
Accounts receivable	392,154	295,374
Inventories, net of \$982,973 and \$982,973 reserve, respectively	666,045	686,383
Prepaid expenses and other current assets	257,552	257,527
Total current assets	1,554,774	1,243,149
Investment in equity securities	71,699	63,638
Property and equipment, net	99,872	103,351
Right of use asset operating leases	191,816	282,095
Intangible assets, net	295,673	317,308
TOTAL ASSETS	\$ 2,213,834	\$ 2,009,541
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES		
Accounts payable	\$ 768,967	\$ 637,238
Accrued employee compensation	268,546	167,247
Accrued professional fees and other	2,453,995	2,497,762
Accrued interest and dividends payable	10,811,069	10,803,983
Deferred revenue	475,987	58,242
Convertible debt, net of unamortized debt discounts of \$1,673,288 and \$455,517, respectively	17,741,416	17,823,669
Other debt, net of unamortized discounts of \$485,672 and \$0, respectively	1,185,028	1,638,969
Related party, net of unamortized debt discount of \$4,715 and \$7,915, respectively	632,085	634,885
Right of use operating lease liability	65,029	142,171
Total current liabilities	34,402,122	34,404,166
LONG TERM LIABILITIES		
Long term debt	163,838	150,000
Right of use operating lease liability long term	90,052	139,924
Deferred revenue	7,143	1,822
TOTAL LIABILITIES	34,663,155	34,695,912
COMMITMENTS AND CONTINGENCIES (Note 4)		
STOCKHOLDERS' DEFICIT		
Series D, G, H, H2, J, K, AA Convertible Preferred Stock, \$.01 par value (Note 6)	86	1,098
Common stock, \$.01 par value; 100,000,000 shares authorized; 18,064,240 and 13,682,910 shares issued and outstanding on March 31, 2023 and December 31, 2022, respectively	180,643	136,829
Warrants to acquire common stock	32,057,371	31,995,762
Additional paid-in capital	76,428,425	69,006,145
Accumulated deficit	(141,115,846)	(133,826,205)
TOTAL STOCKHOLDERS' DEFICIT	(32,449,321)	(32,686,371)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$ 2,213,834	\$ 2,009,541

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

	For the Three Months Ended March 31,	
	2023	2022
Revenue:		
Products, services, other	\$ 740,600	\$ 480,000
Total revenue	740,600	480,000
Costs and expenses:		
Cost of products and services	358,628	314,363
Research and development	435,646	281,589
Selling and marketing	226,015	66,462
General and administrative	3,358,056	903,885
Total operating costs	4,378,345	1,566,299
Operating loss	(3,637,745)	(1,086,299)
Other (expense) income:		
Interest expense, net	(3,893,686)	(2,579,161)
Unrealized gain on investment in equity securities	8,061	19,138
Gain (loss) on extinguishment of liabilities	659,277	(589,850)
Other income (expense)	6,259	(3,513)
Total other expense	(3,220,089)	(3,153,386)
Net loss	(6,857,834)	(4,239,685)
Preferred stock dividends	(431,807)	(432,149)
Net loss attributable to common shareholders	\$ (7,289,641)	\$ (4,671,834)
Basic and diluted net loss per share attributable to common shareholders	\$ (0.46)	\$ (0.48)
Weighted average common shares outstanding used in the basic and diluted net loss per share calculation	15,839,373	9,695,189

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	For the Three Months Ended March 31,	
	2023	2022
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	\$ (6,857,834)	\$ (4,239,685)
Adjustments to reconcile net loss to net cash used in operating activities:		
Gain on extinguishment of debt and interest	(659,277)	(10,000)
Non-cash lease expense	90,279	26,559
Common stock and warrants issued for interest	1,705,234	1,173,458
Depreciation and amortization	28,114	35,096
Accretion of interest and amortization of debt discount	615,007	817,877
Loss on extinguishment of accrued liabilities and debt	-	589,570
Common stock issued for debt extension	1,029,939	-
Stock-based compensation expense	1,430,244	64,483
Gain on investment in equity securities	(8,061)	(19,138)
Common stock and warrants issued for services	1,480,944	117,461
Changes in operating assets and liabilities:		
Accounts receivable	(96,780)	(137,100)
Inventories	20,338	(212,985)
Prepaid expenses and other assets	(25)	237,681
Accounts payable	131,729	137,304
Accrued employee compensation	101,299	52,532
Operating lease liability	(127,014)	(26,559)
Deferred revenue and other accrued expenses	693,653	637,164
Net cash used in operating activities	<u>(422,211)</u>	<u>(756,282)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property plant and equipment	(3,000)	(1,135)
Net cash used in investing activities	<u>(3,000)</u>	<u>(1,135)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:		
Sale of common stock	100,000	-
Proceeds from stock option exercises	81,111	-
Net proceeds from convertible debt	2,520,000	806,000
Net proceeds from non-convertible debt - third party	654,681	351,150
Net proceeds from debt - related party	88,200	195,250
Payments on convertible debt	(1,628,474)	(324,350)
Payments on debt - related party	(99,000)	-
Payments on non-convertible debt	(1,056,149)	(284,141)
Net cash provided by financing activities	<u>660,369</u>	<u>743,909</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	235,158	(13,508)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	3,865	132,311
CASH AND CASH EQUIVALENTS AT END OF PERIOD	<u>\$ 239,023</u>	<u>\$ 118,803</u>
CASH FLOWS SUPPLEMENTAL INFORMATION		
Interest paid in cash	\$ 534,872	\$ 120,436
NON CASH TRANSACTIONS:		
Early adoption of ASU 2020-06 adoption	-	473,027
Common stock issued with debt	1,087,751	142,480
Discount from warrants issued with debt	-	87,436
Common stock issued in lieu of cash for dividend	102,435	64,256
Preferred stock dividends	431,807	432,149
Conversion of preferred stock for common stock	4,935	-
Conversion of debt and interest into common stock	509,033	350,500

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT
(UNAUDITED)

	Combined Preferred Stock		Common Stock		Stock Warrants	Additional Paid In Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
BALANCE, December 31, 2021	109,878	\$ 1,099	9,120,526	\$ 91,206	\$ 31,715,154	\$ 64,261,048	\$ (118,277,468)	\$ (22,208,961)
Early adoption of ASU 2020-06	-	-	-	-	-	(2,728,243)	2,255,216	(473,027)
Stock-based compensation	-	-	-	-	-	64,483	-	64,483
Series AA Preferred Stock dividend	-	-	-	-	-	-	(432,149)	(432,149)
Issuance of common stock for services	-	-	37,000	370	-	77,330	-	77,700
Issuance of common stock warrants for services	-	-	-	-	39,761	-	-	39,761
Warrants issued for debt extension	-	-	-	-	132,537	-	-	132,537
Common stock issued for debt extension	-	-	214,500	2,145	-	470,755	-	472,900
Conversion of debt and interest for common stock	-	-	140,200	1,402	-	349,098	-	350,500
Issuance of common stock for dividends paid-in-kind	-	-	31,810	318	-	63,938	-	64,256
Issuance of common stock for interest paid-in-kind	-	-	558,100	5,581	-	1,167,877	-	1,173,458
Stock issued with debt	-	-	92,000	920	-	141,560	-	142,480
Warrants issued with debt	-	-	-	-	87,436	-	-	87,436
Net loss	-	-	-	-	-	-	(4,239,685)	(4,239,685)
BALANCE, March 31, 2022	109,878	\$ 1,099	10,194,136	\$ 101,942	\$ 31,974,888	\$ 63,867,846	\$ (120,694,086)	\$ (24,748,311)

	Combined Preferred Stock		Common Stock		Stock Warrants	Additional Paid In Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
BALANCE, December 31, 2022	109,874	\$ 1,098	13,682,910	\$ 136,829	\$ 31,995,762	\$ 69,006,145	\$ (133,826,205)	\$ (32,686,371)
Stock option exercise	-	-	117,552	1,176	-	79,935	-	81,111
Stock-based compensation	-	-	-	-	-	1,430,244	-	1,430,244
Series AA Preferred Stock dividend	-	-	-	-	-	-	(431,807)	(431,807)
Issuance of common stock for services	-	-	990,500	9,905	-	1,409,430	-	1,419,335
Issuance of common stock warrants for services	-	-	-	-	61,609	-	-	61,609
Conversion of debt and interest for common stock	-	-	203,613	2,036	-	506,997	-	509,033
Issuance of common stock for dividends paid-in-kind	-	-	73,694	737	-	101,698	-	102,435
Issuance of common stock for interest paid-in-kind	-	-	1,111,081	11,111	-	1,694,123	-	1,705,234
Common stock issued for debt extension	-	-	568,200	5,682	-	1,024,257	-	1,029,939
Stock issued with debt	-	-	783,150	7,832	-	1,079,919	-	1,087,751
Conversion of preferred stock for common stock	(101,154)	(1,012)	493,540	4,935	-	(3,923)	-	-
Sale of common stock for cash	-	-	40,000	400	-	99,600	-	100,000
Net loss	-	-	-	-	-	-	(6,857,834)	(6,857,834)
Balance, March 31, 2023	8,720	\$ 86	18,064,240	\$ 180,643	\$ 32,057,371	\$ 76,428,425	\$ (141,115,846)	\$ (32,449,321)

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

PRESSURE BIOSCIENCES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
MARCH 31, 2023
(UNAUDITED)

1) Business Overview, Liquidity and Management Plans

Pressure BioSciences, Inc. (OTCQB: PBIO) (the “Company”) is a leader in the development & sale of innovative, enabling, high pressure technology-based instruments, consumables, and services for the life sciences and other industries worldwide. Our products/services are based on three patented, high-pressure platforms: (i) Pressure Cycling Technology (“PCT”), (ii) BaroFold Technology (“BaroFold”), and (iii) Ultra Shear Technology (“UST”).

The Company was founded on the belief that its PCT Platform had the potential to significantly increase the quality of sample preparation in both research and clinical settings. Although this premise has been proven true, and although PBI has been successful in installing its PCT Platform in the laboratories of key opinion leaders worldwide, the Company now believes – based on market feedback – that the commercial potential for its UST Platform far exceeds the potential of the PCT Platform. Consequently, in January 2022, PBI made the critical decision to immediately shift its primary business focus from PCT to its innovative UST Platform.

The UST Platform (7 issued patents) is based on the use of intense shear forces from ultra-high pressure discharge (greater than 20,000 psi) through a dynamically-controlled nano-gap valve under precisely controlled temperatures. UST has been shown to turn hydrophobic (water-repelling) oil-based supplements (e.g., CBD, curcumin), therapeutics (e.g., prednisone), and other active ingredients (e.g., retinol, astaxanthin) into long-term stable, effectively water-soluble, highly bioavailable, oil-in-water nanoemulsion formulations. The Company began commercialization of the UST Platform in May 2022, and executed agreements have subsequently been announced with three CBD companies and one cosmeceutical/skincare company for commercialization in Q4 2022.

The BaroFold Platform (8 issued patents) can be used to significantly improve the quality and production costs of protein biotherapeutics. It employs high pressure manipulations for the disaggregation, unfolding and controlled refolding of proteins to their desired native structures at yields and efficiencies not achievable using existing technologies. The BaroFold Platform has been shown to remove protein aggregates in biotherapeutic drug manufacturing, thereby improving product efficacy, safety, and cost for both new-drug entities and biosimilar (follow-on biologic) products. It is scalable and practical for standard manufacturing processes.

The PCT Platform (15 issued patents) uses alternating cycles of hydrostatic pressure between ambient and ultra-high pressures to control bio-molecular interactions safely and reproducibly in sample preparation (e.g., the critical steps performed by tens of thousands of scientists worldwide prior to analytical measurements, such as cell lysis and biomolecule extraction from tissue samples). Our primary focus is on making our recently released, GMP-compliant, next generation PCT-based Barocycler EXTREME system available globally to biopharmaceutical drug manufacturers for use in the design, development, characterization, and quality control of biotherapeutic drugs. We currently have over 350 PCT Systems placed in approximately 225 academic, government, pharmaceutical, and biotech research laboratories worldwide. There are currently over 200 independent publications highlighting the advantages of using the PCT Platform in scientific research & clinical laboratories.

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 losses from operations and negative cash flows from operations with respect to our pressure cycling technology business since our inception. As of March 31, 2023, 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 debt and equity capital in the past and as described in Notes 5 and 6. In addition we raised debt and equity capital after March 31, 2023 as described in Note 7. We have financing efforts in place to continue to raise cash through debt and equity offerings. 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. These financial statements do not include any adjustments that might result from this uncertainty.

3) Summary of Significant Accounting Policies

Basis of Presentation

The unaudited interim financial statements of Pressure BioSciences, Inc. and its consolidated subsidiaries (collectively, the “Company”) included herein have been prepared by the Company in accordance with the instructions to Form 10-Q and the rules and regulations of the U.S. Securities and Exchange Commission. Under these rules and regulations, some information and footnote disclosures normally included in financial statements prepared under accounting principles generally accepted in the United States of America have been shortened or omitted. Management believes that all adjustments necessary for a fair statement of the financial position and the results of operations for the periods shown have been made. All adjustments are normal and recurring. These financial statements should be read together with the Company’s audited financial statements included in its Form 10-K for the fiscal year ended December 31, 2022. Operating results for the three months ended March 31, 2023 are not necessarily indicative of the final results that may be expected for the year ending December 31, 2023.

Use of Estimates

The Company’s consolidated financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America, which require the use of estimates, judgements and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the periods presented. Global concerns about the COVID-19 pandemic have adversely affected, and we expect will continue to adversely affect, our business, financial condition and results of operations including the estimates and assumptions made by management. Significant estimates and assumptions include valuations of share-based awards, investments in equity securities and intangible asset impairment. Actual results could differ from the estimates, and such differences may be material to the Company’s consolidated financial statements.

Recent Accounting Pronouncements

In August 2020, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2020-06, Accounting for Convertible Instruments and Contracts in an Entity’s Own Equity, as part of its overall simplification initiative to reduce costs and complexity of applying accounting standards while maintaining or improving the usefulness of the information provided to users of financial statements. Among other changes, the new guidance removes the beneficial conversion separation model for convertible debt. As a result, after adopting the guidance, entities will no longer account for beneficial conversion features in equity. The guidance is effective for public business entities, other than small reporting company’s financial statements starting January 1, 2022, with early adoption permitted. The Company is a small reporting company and early adopted the new guidance on January 1, 2022 using the modified retrospective approach and recorded a cumulative effect of adoption equal to a \$2,728,243 decrease in additional paid in capital and a \$2,255,216 decrease in accumulated deficit. There is no material impact to the Company’s statements of operations or cash flows as the result of the adoption of ASU 2020-06.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses, which requires measurement and recognition of expected credit losses for financial assets held. We adopted this new accounting guidance effective January 1, 2023. The adoption did not have a material impact on our consolidated financial statements and disclosures and did not significantly impact the Company’s accounting policies or estimation methods related to the allowance for doubtful accounts. The Company does not have any reserve for doubtful accounts due to its customers being distributors, universities, research organizations and government agencies. In the past several years, all its customers have paid in full without any need for a write-down.

Principles of Consolidation

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

Revenue Recognition

We recognize revenue in accordance with FASB ASC 606, *Revenue from Contracts with Customers*, and ASC 340-40, *Other Assets and Deferred Costs—Contracts with Customers*. Revenue is measured based on a consideration specified in a contract with a customer, and excludes any sales incentives and amounts collected on behalf of third parties. We enter into sales contracts that may consist of multiple distinct performance obligations where certain performance obligations of the sales contract are not delivered in one reporting period. We measure and allocate revenue according to ASC 606-10.

We identify a performance obligation as distinct if both the following criteria are true: the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer and the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract. Determining the standalone selling price ("SSP") and allocation of consideration from a contract to the individual performance obligations, and the appropriate timing of revenue recognition, is the result of significant qualitative and quantitative judgments. Management considers a variety of factors such as historical sales, usage rates, costs, and expected margin, which may vary over time depending upon the unique facts and circumstances related to each performance obligation in making these estimates. While changes in the allocation of the SSP between performance obligations will not affect the amount of total revenue recognized for a particular contract, any material changes could impact the timing of revenue recognition, which would have a material effect on our financial position and result of operations. This is because the contract consideration is allocated to each performance obligation, delivered or undelivered, at the inception of the contract based on the SSP of each distinct performance obligation.

Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer, are excluded from revenue.

Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of revenues as consistent with treatment in prior periods.

Our current Barocycler® instruments require a basic level of instrumentation expertise to set-up for initial operation. To support a favorable first experience for our customers, upon customer request, and for an additional fee, we will send a highly trained technical representative to the customer site to install Barocyclers® that we sell, lease, or rent through our domestic sales force. The installation process includes uncrating and setting up the instrument, followed by introductory user training. Our sales arrangements do not provide our customers with a right of return. Any shipping costs billed to customers are recognized as revenue.

The majority of our instrument and consumable contracts contain pricing that is based on the market price for the product at the time of delivery. Our obligations to deliver product volumes are typically satisfied and revenue is recognized when control of the product transfers to our customers. Concurrent with the transfer of control, we typically receive the right to payment for the shipped product and the customer has significant risks and rewards of ownership of the product. Payment terms require customers to pay shortly after delivery and do not contain significant financing components.

Revenue from scientific services customers is recognized upon completion of each stage of service as defined in service agreements.

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

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

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

We account for lease agreements of our instruments in accordance with ASC 842, Leases. We record revenue over the life of the lease term, and we record depreciation expense on a straight-line basis over the thirty-six-month estimated useful life of the Barocycler® instrument. The depreciation expense associated with assets under lease agreement is included in the “Cost of PCT products and services” line item in our accompanying consolidated statements of operations. Many of our lease and rental agreements allow the lessee to purchase the instrument at any point during the term of the agreement with partial or full credit for payments previously made. We pay all maintenance costs associated with the instrument during the term of the leases.

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

Disaggregation of revenue

In the following table, revenue is disaggregated by primary geographical market, major product line, and timing of revenue recognition.

<i>In thousands of US dollars (\$)</i>	Three Months Ended March 31,	
	2023	2022
Primary geographical markets		
North America	\$ 556	\$ 318
Europe	36	46
Asia	149	116
	<u>\$ 741</u>	<u>\$ 480</u>
	Three Months Ended March 31,	
	2023	2022
Major products/services lines		
Hardware	\$ 428	\$ 284
Consumables	66	40
Contract research services	5	15
Sample preparation accessories	45	31
Agrochem products	131	83
Technical support/extended service contracts	43	17
Shipping and handling	19	10
Other	4	-
	<u>\$ 741</u>	<u>\$ 480</u>
	Three Months Ended March 31,	
	2023	2022
Timing of revenue recognition		
Products transferred at a point in time	\$ 693	\$ 448
Services transferred over time	48	32
	<u>\$ 741</u>	<u>\$ 480</u>

Contract balances

<i>In thousands of US dollars (\$)</i>	March 31, 2023	December 31, 2022
Receivables, which are included in ‘Accounts Receivable’	\$ 392	\$ 295
Contract liabilities (deferred revenue)	483	60

Transaction price allocated to the remaining performance obligations

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period.

<i>In thousands of US dollars (\$)</i>	2023	2024	Total
Extended warranty service	\$ 58	\$ 7	\$ 65

All consideration from contracts with customers is included in the amounts presented above.

Contract Costs

The Company recognizes the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that the Company otherwise would have recognized is one year or less. These costs are included in selling, general, and administrative expenses. The costs to obtain a contract are recorded immediately in the period when the revenue is recognized either upon shipment or installation. The costs to obtain a service contract are considered immaterial when spread over the life of the contract so the Company records the costs immediately upon billing.

Concentrations

Credit Risk

Our financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash, cash equivalents, and trade receivables. We have cash investment policies which, among other things, limit investments to investment-grade securities. We perform ongoing credit evaluations of our customers, and the risk with respect to trade receivables is further mitigated by the fact that many of our customers are government institutions, large pharmaceutical and biotechnology companies, and academic laboratories.

The following table illustrates the level of concentration as a percentage of total revenues during the three months ended March 31, 2023 and 2022.

	For the Three Months Ended March 31,	
	2023	2022
Top Five Customers	64%	73%
Federal Agencies	1%	0%

The following table illustrates the level of concentration as a percentage of net accounts receivable balance as of March 31, 2023 and December 31, 2022. The Top Five Customers category may include federal agency receivable balances if applicable.

	March 31, 2023	December 31, 2022
Top Five Customers	92%	93%
Federal Agencies	0%	0%

Product Supply

In recent years we utilized a contract assembler for our Barocycler® 2320EXT. They provided us with precision manufacturing services that included management support services to meet our specific application and operational requirements. Among the services provided to us were:

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

Beginning in July 2021, we brought the assembly of our Barocycler 2320EXT instruments in-house. This became necessary when our independent contract assembler (CBM Industries) informed us that they were about to need 100% of their assembly space for one of their customers, who was in fact one of the largest life science instrument manufacturers in the U.S. We worked with our notified body to gain approval to use both the CE and CSA marks on the instrument, which we received during Q3 2021. Until further notice, we expect to continue to assemble our Barocycler 2320EXT instrument at our South Easton, MA location.

We currently manufacture and assemble the Barocycler®, HUB440, HUB880, the SHREDDER SG3, and most of our consumables at our South Easton, MA facility. We will regularly reassess the tradeoffs between in-house assembly versus the benefits of outsourced relationships for of the entire Barocycler® product line, and future instruments.

Investment in Equity Securities

As of March 31, 2023, we held 100,250 shares of common stock of Nexity Global SA, (a Polish publicly traded company).

We account for this investment in accordance with ASC 320 “Investments — Debt and Equity Securities”. ASC 320 requires equity investments with readily determinable fair values to be measured at fair value with changes in fair value recognized in net income.

As of March 31, 2023, our consolidated balance sheet reflected the fair value, determined on a recurring basis based on Level 1 inputs of our investment in Nexity, to be \$71,699. We recorded \$8,061 as an unrealized gain during the three months ended March 31, 2023 for changes in market value.

Computation of Loss per Share

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

The following table illustrates our computation of loss per share for the three months ended March 31, 2023 and 2022:

	For the Three Months Ended March 31,	
	2023	2022
Numerator:		
Net loss attributable to common stockholders	\$ (7,289,641)	\$ (4,671,834)
Denominator for basic and diluted loss per share:		
Weighted average common stock shares outstanding	15,839,373	9,695,189
Loss per common share – basic and diluted	\$ (0.46)	\$ (0.48)

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, Series K Convertible Preferred Stock, and Series AA Convertible Preferred Stock are presented below as if they were converted into common shares according to the conversion terms.

	As of March 31,	
	2023	2022
Stock options	3,420,754	1,307,822
Convertible debt	7,620,701	5,668,816
Common stock warrants	16,217,101	16,350,438
Convertible preferred stock:		
Series D Convertible Preferred Stock	6,250	25,000
Series G Convertible Preferred Stock	-	26,857
Series H Convertible Preferred Stock	-	33,334
Series H2 Convertible Preferred Stock	-	70,000
Series J Convertible Preferred Stock	-	115,267
Series K Convertible Preferred Stock	-	229,334
Series AA Convertible Preferred Stock	8,645,000	8,649,000
	<u>35,909,806</u>	<u>32,475,868</u>

Accounting for Stock-Based Compensation Expense

We maintain equity compensation plans under which incentive stock options and non-qualified stock options are granted to employees, independent members of our Board of Directors and outside consultants. We recognize stock-based compensation expense over the requisite service period using the Black-Scholes formula to estimate the fair value of the stock options on the date of grant.

Determining Fair Value of Stock Option Grants

The following table summarizes the assumptions we utilized for grants of stock options to the three sub-groups of our stock option recipients during the three months ended March 31, 2023:

Assumptions	CEO, other Officers and Employees
Expected life	6.0(yrs)
Expected volatility	130.5%
Risk-free interest rate	3.90%
Forfeiture rate	0 to 5.00%
Expected dividend yield	0.0%

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.

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 Company recognized stock-based compensation expense of \$1,430,244 and \$64,483 for the three months ended March 31, 2023 and 2022, respectively. The following table summarizes the effect of this stock-based compensation expense within each of the line items of our costs and expenses within our Consolidated Statements of Operations:

	For the Three Months Ended	
	March 31,	
	2023	2022
Cost of sales	\$ 53,481	\$ 4,349
Research and development	170,620	18,909
Selling and marketing	72,099	9,050
General and administrative	1,134,044	32,175
Total stock-based compensation expense	\$ 1,430,244	\$ 64,483

Fair Value of Financial Instruments

Due to their short maturities, the carrying amounts for cash and cash equivalents, accounts receivable, accounts payable, accrued expenses and debt approximate their fair value. The carrying amount of long-term debt approximates fair value due to interest rates that approximate prevailing market rates.

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 fair value measurement.

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 in the fair value hierarchy. The development of the unobservable inputs for Level 3 fair value measurements and fair value calculations are the responsibility of the Company's management.

The following tables set forth the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis as of March 31, 2023:

		Fair value measurements at March 31, 2023 using:		
		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
	March 31, 2023			
Equity Securities	\$ 71,699	\$ 71,699	-	-
Total Financial Assets	\$ 71,699	\$ 71,699	\$ -	\$ -

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, 2022:

		Fair value measurements at December 31, 2022 using:		
		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
	December 31, 2022			
Equity Securities	63,638	63,638	-	-
Total Financial Assets	\$ 63,638	\$ 63,638	\$ -	\$ -

4) Commitments and Contingencies

Operating Leases

The Company accounts for its leases under ASC 842. The Company has elected to apply the short-term lease exception to leases of one year or less. Our corporate office is currently located at 14 Norfolk Avenue, South Easton, Massachusetts 02375. We are currently paying \$7,650 per month, on a lease extension, signed on December 5, 2022, that expires December 31, 2023, 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 a monthly rent increase already reflected in the current payments.

We extended our lease for our space in Medford, MA (the "Medford Lease") from December 30, 2020 to December 30, 2023. The lease required monthly payments of \$7,282 subject to annual cost of living increases. The lease shall be automatically extended for additional three years unless either party terminates at least six months prior to the expiration of the current lease term.

The Company accounted for the lease extension of our Medford Lease as a lease modification under ASC 842. At the effective date of modification, the Company recorded an adjustment to the right-of-use asset and lease liability in the amount of \$221,432 based on the net present value of lease payments discounted using an estimated borrowing rate of 12%.

On August 9, 2021, we entered into an operating lease agreement for our warehouse space in Sparks, NV (the “Sparks Lease”) for the period from September 1, 2021 through September 30, 2026. The lease contains escalating payments during the lease period. The lease can be extended for an additional three years if the Company provides notice at least six months prior to the expiration of the current lease term.

The Company accounted for the Sparks Lease as an operating lease under ASC 842. Upon the commencement of the lease, the Company recorded a right-of-use asset and lease liability in the amount of \$239,327 based on the net present value of lease payments discounted using an estimated borrowing rate of 12%.

Following is a schedule by years of future minimum rental payments required under operating leases with initial or remaining non-cancelable lease terms in excess of one year as of March 31, 2023:

Year	Total
April 1 - December 31, 2023	\$ 149,300
2024	64,393
2025	66,969
2026	51,777
2027	-
Total future undiscounted lease payments	332,439
Less imputed interest	(177,358)
Present value of lease liabilities	<u>\$ 155,081</u>

The operating cash flows from the operating leases were \$90,279 for the three months ended March 31, 2023 and \$26,559 for the three months ended March 31, 2022. The weighted-average remaining lease term (years) of the above leases is 2.84 year as of March 31, 2023.

Below is a table for the right of use asset and the corresponding lease liability in the consolidated balance sheets:

Operating Leases	March 31, 2023	December 31, 2022
Right of use asset	\$ 191,816	\$ 282,095
Right of use liability, current	\$ 65,029	\$ 142,171
Right of use liability, long term	\$ 90,052	\$ 139,924
Total lease liability	<u>\$ 155,081</u>	<u>\$ 282,095</u>

The weighted-average discount rate is 12%.

The Company had no financing lease during the three months ended March 31, 2023 and 2022.

The components of lease cost for operating leases for the three months ended March 31, 2023 and 2022 are as follows:

	March 31, 2023	March 31, 2022
Operating lease cost	\$ 37,810	\$ 37,810
Short-term lease cost	20,850	20,850
Total lease cost	<u>\$ 58,660</u>	<u>\$ 58,660</u>

Battelle Memorial Institute

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

Target Discovery Inc.

In March 2010, we signed a strategic product licensing, manufacturing, co-marketing, and collaborative research and development agreement with Target Discovery Inc. (“*TDI*”), a related party. Under the terms of the agreement, we have been licensed by TDI to manufacture and sell an innovative line of chemicals used in the preparation of tissues for scientific analysis (“*TDI reagents*”). The TDI reagents were designed for use in combination with our pressure cycling technology. The companies believe that the combination of PCT and the TDI reagents can fill an existing need in life science research for an automated method for rapid extraction and recovery of intact, functional proteins associated with cell membranes in tissue samples. We did not incur any royalty obligation under this agreement in 2023 or 2022.

In April 2012, we signed a non-exclusive license agreement with TDI to grant the non-exclusive use of our pressure cycling technology. We executed an amendment to this agreement on October 1, 2016 wherein we agreed to pay a monthly fee of \$1,400 for the use of a lab bench, shared space, and other utilities, and \$2,000 per day for technical support services as needed. The agreement requires TDI to pay the Company a minimum royalty fee of \$60,000 in 2022 and \$60,000 in 2023. For the three months ended March 31, 2023 and March 31, 2022, the Company reported \$15,450 and \$17,700, respectively in TDI fees.

Severance and Change of Control Agreements

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

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

5) Debt

Convertible Debt

On various dates during the three months ended March 31, 2023, the Company issued convertible notes for net proceeds of approximate total of \$2.5 million which contained varied terms and conditions as follows: a) 4-12 month maturity date; b) interest rates of 0-120%; c) convertible to the Company’s common stock at issuance at a fixed rate of \$2.50 or at variable conversion rates upon the Company’s up-listing to NASDAQ or NYSE or an event of default. These notes were issued with shares of common stock that were fair valued at issuance date. The aggregate relative fair value of the shares of common stock issued with the notes of \$1,087,751 was recorded as a debt discount to be amortized over the term of the notes. We also evaluated the convertible notes for derivative liability treatment and determined that the notes did not qualify for derivative accounting treatment on March 31, 2023.

For the three months ended March 31, 2023, deferred financing costs and OID issued with the debt are \$535,250 and the Company repaid \$1,628,474.

The summary of specific terms of the convertible notes and outstanding balances as of March 31, 2023 and December 31, 2022 are listed in the tables below. The convertible notes are from numerous parties and with original issue dates from July, 2019 to March, 2023, and maturity dates from July, 2020 to March, 2024. There are approximately \$14 million of notes that are past due as of March 31, 2023.

Holders	March 31, 2023			December 31, 2022		
	Interest Rate	Conversion Price	Principal	Interest Rate	Conversion Price	Principal
Main Investor	10%	\$2.50 (1)	\$ 9,393,150	10%	\$2.50 (1)	\$ 9,393,150
Others	0 to 24%	\$2.50 (2) or \$7.50	10,021,554	0 to 24%	\$2.50 or \$7.50 (2)	8,886,036
Totals			19,414,704			18,279,186
Discount			1,673,288			455,517
Net			\$ 17,741,416			\$ 17,823,669

Notes:

- (1) Conversion price of these note is \$2.50 except for a note for \$189,750, which will be adjusted to, upon an Event of Default, the lower of (i) the conversion price or (ii) a 25% discount to the 5-day average VWAP of the stock prior to default.
- (2) Conversion price of these notes is \$2.50 but also varies with one or more of these notes having the following conversion adjustment:
 - a. Notes are convertible before maturity at \$2.50 per share or mandatorily convertible when the Company up-lists to the NASDAQ at the lower of \$2.50 or the up-list price.
 - b. Notes are convertible upon an Event of Default at 75% multiplied by the lowest trading price for the common stock during the five days prior to the conversion.
 - c. Notes are convertible at \$2.50 per share except that following an Event of Default the conversion price will be adjusted to 75% multiplied by the lowest trading price for the common stock during the five days prior to the conversion.
 - d. Notes can be voluntary converted at lower of 1) \$2.50/share; or 2) purchase price of stock sold by PBI at a price lower than \$2.50/share. In the event of default, these notes can be converted at lower of 1) \$2.50/share; 2) 30% discount to 5-day VWAP prior to date of default.
 - e. Notes can be voluntary converted at lower of 1) \$2.50/share; or 2) purchase price of stock sold by PBI at a price lower than \$2.50/share. In the event of default, these notes can be converted at lower of 1) \$2.50/share; 2) 25% discount to 5-day VWAP prior to date of default.
 - f. Conversion price is lower of (i) \$2.50 or (ii) the price per share that the Company last sold Common Stock after the execution of an anti-dilution protection agreement.
 - g. Note can be converted at a Voluntary Conversion Price which is the lower of 1) \$2.50/share; or 2) purchase price of stock sold by the Company at a price lower than \$2.50 except that following an Event of Default, the Holder shall have the right, with no further consent from the Borrower, to convert notes which can be the lower of 1) the Voluntary Conversion Price, or 2) 70% of the 5-day VWAP prior to conversion.
 - h. Conversion price is \$2.50. If note is in default, it is \$1.
 - i. Notes can be voluntarily converted before maturity at \$2.50 per share. Lender retains the option upon an Up-list to convert at the lower of \$2.50 or the 10% off Up-list price.
 - j. Notes can be converted at the lesser of \$2.5 per share or 25% discount to the opening price of the Company's first day of trading on either Nasdaq or NYSE. In addition, if the Company fails to pay the Note in cash on maturity date, the conversion price will be adjusted to the lesser of (i) original conversion price or (ii) a 35% discount to the VWAP prior to each conversion date.
 - k. Some notes are not convertible until 180 days from the date of issuance of the Note and following an Event of Default will be convertible at the lowest trading price of the 20 days prior to conversion. The loan with a principal balance of \$850,000 as of March 31, 2023 is guaranteed by the Company's Chief Executive Officer, but the lender may only enforce this guarantee after certain conditions have been met, specifically after (i) the occurrence of an Event of Default (as defined in the Note), (ii) the failure of the Company to cure the Default in 10 business days, and (iii) a failure by the Company to issue, or cause to be issued, shares of its common stock upon submission by the lender of a notice of conversion.
 - l. Some notes can be converted at the lesser of \$2.50 per share or 25% discount to the opening price of the Company's first day of trading on either Nasdaq or NYSE. In addition, if the Company fails to pay the Note in cash on maturity date, the conversion price will be adjusted to the lesser of original conversion price or the product of the VWAP of the common stock for the 5 trading dates immediately prior to the maturity date multiplied by 0.75.

For the three months ended March 31, 2023, the Company recognized amortization expense related to the debt discounts indicated above of \$512,781. The unamortized debt discounts as of March 31, 2023 related to the convertible notes amounted to \$1,673,288.

As of March 31, 2023, the principal balance that are secured by the assets of the Company's subsidiary, PBI Agrochem, Inc. is \$352,188.

Standstill and Forbearance Agreements

In recent years, the Company entered into Standstill and Forbearance Agreements with lenders who hold variable-rate convertible notes. Pursuant to these agreements the lenders agreed to not convert any portion of their notes into shares of common stock at a variable rate. During the three months ended March 31, 2023, the Company settled one note with total principal of \$302,484, leaving one final lender (three notes) with total principal of \$272,500 outstanding and incurred interest, penalties and fees of approximately \$142,247 in connection with the Standstill and Forbearance Agreements.

Convertible Loan Modifications and Extinguishments

We refinanced certain convertible loans during the three months ended March 31, 2023 at substantially the same terms for extensions ranging over a period of two to six months. We amortized any remaining unamortized debt discount as of the modification date over the remaining, extended term of the new loans. We applied ASC 470 of modification accounting to the debt instruments which were modified during the quarter or those settled with new notes issued concurrently for the same amounts but different maturity dates. The terms such as the interest rate, prepayment penalties, and default rates will be the same over the new extensions. According to ASC 470, an exchange of debt instruments between or a modification of a debt instrument by a debtor and a creditor in a nontroubled debt situation is deemed to have been accomplished with debt instruments that are substantially different if the present value of the cash flows under the terms of the new debt instrument is at least 10 percent different from the present value of the remaining cash flows under the terms of the original instrument. If the terms of a debt instrument are changed or modified and the cash flow effect on a present value basis is less than 10 percent, the debt instruments are not considered to be substantially different and will be accounted for as modifications.

The cash flows of new debt exceeded 10% of the remaining cash flows of the original debt on several loans. During the three months ended March 31, 2023 we recorded gains on extinguishment of liabilities of approximately \$0.7 million by calculating the difference of the fair value of the new debt and the carrying value of the old debt. During the three months ended March 31, 2023, the Company extended 5 loans totaling \$1,354,438 and increased the principal to \$1,363,438. The Company issued 568,200 shares of common stock for these extensions and added principal.

Other Debt

No notes in Other Debt are past due as of March 31, 2023.

Holders	March 31, 2023		December 31, 2022	
	Interest Rate	Principal	Interest Rate	Principal
Non-Convertible	(1)	\$ 866,308	(1)	\$ 878,809
Merchant debt (3)		804,392		760,160
SBA (2)	3.75%	163,838	3.75%	150,000
Totals		1,834,538		\$ 1,788,969
Discount		485,672		-
Long Term		163,838		150,000
Short Term		\$ 1,185,028		\$ 1,638,969

Notes:

- (1) Interest varies from 1% to 10%. The maturity is between being past due and May 2, 2023. As of March 31, 2023, \$866,308 of the non-convertible debt is past due.
- (2) The Company entered a COVID-19 government loan in 2020, the Economic Injury Disaster Loan (or "EIDL"). The Company's EIDL loan, \$150,000, accrues interest at 3.75% and requires monthly payments of \$731 for principal and interest beginning in December 2022. The balance of the principal will be due in 30 years. In connection with the EIDL loan the Company entered into a security agreement with the SBA, whereby the Company granted the SBA a security interest in all of the Company's right, title and interest in all of the Company's assets. During the three months ended March 31, 2023, \$14,719 interest was deferred and added to principal on EIDL loan and the Company repaid \$880 principal on this loan. During the year ended December 31, 2020, the Company borrowed \$367,039 (two-year term and 1% interest rate per annum) under the Payroll Protection program (or "2020 PPP"). During the year ended December 31, 2021, the Company borrowed \$367,039 through a second Payroll Protection program (or "2021 PPP") and extended the monthly payment date on the EIDL to December 2022. In year 2021, both 2020 PPP and 2021 PPP was forgiven by the United States and SBA.

- (3) During the three months ended March 31, 2023 and the year ended December 31, 2022 we signed various Merchant Agreements which are secured by second position rights to all customer receipts until the loan has been repaid in full and subject to interest rates of 4.1% - 30.2% per month. Under the terms of these agreements, we received the disclosed Purchase Price and agreed to repay the disclosed Purchase Amount, which is collected by the Merchant lenders at the Daily Payment Rate. We accounted for the Merchant Agreements as loans under ASC 860 because while we provided rights to current and future receipts, we still had control over the receipts. The difference between the Purchase Amount and the Purchase Price is imputed interest that is recorded as interest expense when paid each day. The Company's Chief Executive Officer guarantees the Company's performance of all representations, warranties, and covenants made by the Company in the Agreement. For loans outstanding on March 31, 2023, the maturity dates ranged from May 31, 2023 to September 17, 2023. For loan outstanding on December 31, 2022, the maturity dates ranged from April 4 to June 6, 2023.

Related Party Notes

Holders	March 31, 2023		December 31, 2022		
	Interest Rate	Principal	Interest Rate	Principal	Security
Officers & Directors	(1)	\$ 510,750	(1)	\$ 521,950	Unsecured
Other Related Parties	12%	126,050	12%	120,850	Unsecured
Totals		636,800		642,800	
Discount		4,715		7,915	
Net		\$ 632,085		\$ 634,885	

Notes:

- (1) Interest varies from 12% to 120%.

During the three months ended March 31, 2023, we received short-term convertible loans of \$93,200 with \$5,000 OID from related parties and repaid \$99,000 of related party loans. These notes bear interest of 12% to 120% and are due upon demand. All related party notes are convertible at \$2.50 share.

We amortized \$102,226 of debt discounts during the three months ended March 31, 2023 for all non-convertible and related party notes. The total unamortized discount for all non-convertible and related party convertible notes as of March 31, 2023, and December 31, 2022 was \$490,387 and \$7,915, respectively.

6) 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, the following is outstanding:

	March 31, 2023	December 31, 2022
Series D Convertible Preferred Stock, \$0.01 par value; 850 shares authorized; 75 shares issued and outstanding on March 31, 2023, and 300 shares issued and outstanding on December 31, 2022 (Liquidation value of \$300,000)	\$ -	\$ 3
Series G Convertible Preferred Stock, \$0.01 par value; 240,000 shares authorized; no shares issued and outstanding on March 31, 2023 and 80,570 shares issued and outstanding on December 31, 2022	-	806
Series H Convertible Preferred Stock, \$0.01 par value; 10,000 shares authorized; no shares issued and outstanding on March 31, 2023 and 10,000 shares issued and outstanding on December 31, 2022	-	100
Series J Convertible Preferred Stock, \$0.01 par value; 6,250 shares authorized; no shares issued and outstanding on March 31, 2023 and 3,458 shares issued and outstanding on December 31, 2022	-	35
Series K Convertible Preferred Stock, \$0.01 par value; 15,000 shares authorized; no shares issued and outstanding on March 31, 2023 and 6,880 shares issued and outstanding on December 31, 2022	-	68
Series AA Convertible Preferred Stock, \$0.01 par value; 10,000 shares authorized; 8,645 shares issued and outstanding on March 31, 2023 and December 31, 2022, respectively	86	86
Series H2 Convertible Preferred Stock, \$0.01 par value; 21 shares authorized; no shares issued and outstanding on March 31, 2023 and 21 shares issued and outstanding on December 31, 2022	-	-
Series A Junior Participating Preferred Stock, \$0.01 par value, 20,000 shares authorized, no shares outstanding	-	-
Series A Convertible Preferred Stock, \$0.01 par value, 313,960 shares authorized, no shares outstanding	-	-
Series B Convertible Preferred Stock, \$0.01 par value, 279,256 shares authorized, no shares outstanding	-	-
Series C Convertible Preferred Stock, \$0.01 par value, 88,098 shares authorized, no shares outstanding	-	-
Series E Convertible Preferred Stock, \$0.01 par value, 500 shares authorized, no shares outstanding	-	-
Total Convertible Preferred Shares	\$ 86	\$ 1,098

Stock Options and Warrants

At the Company's December 30, 2021 Special Meeting, the shareholder's approved the 2021 Equity Incentive Plan (the "2021 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. Consistent with the Company's existing 2013 Equity Incentive plan (the "2013 plan"), under the 2021 plan, we may award stock options, shares of common stock, and other equity interests in the Company to employees, officers, directors, consultants, and advisors, and to any other persons the Board of Directors deems appropriate. As of March 31, 2023, options to acquire 3,420,754 shares were outstanding under these Plans.

As of March 31, 2023, total unrecognized compensation cost related to the unvested stock-based awards was \$1,243,037, which is expected to be recognized over weighted average period of 2.61 years. The aggregate intrinsic value associated with the options outstanding and exercisable as of March 31, 2023, based on the March 31, 2023 closing stock price of \$1.25, was \$863,040.

The following table summarizes information concerning options and warrants outstanding and exercisable:

	Stock Options		Warrants		Total	
	Weighted Average		Weighted Average			
	Shares	price per share	Shares	price per share	Shares	Exercisable
Balance outstanding, December 31, 2022	1,307,822	\$ 0.72	16,278,769	\$ 3.50	17,586,591	17,570,591
Granted	2,230,484	1.50	100,000	3.50	2,330,484	
Exercised	(117,552)	0.69	-		(117,552)	
Expired	-		(161,668)	3.50	(161,668)	
Forfeited	-		-		-	
Balance outstanding, March 31, 2023	3,420,754	\$ 1.23	16,217,101	\$ 3.50	19,637,855	18,538,573

As of March 31, 2023, the 3,420,754 options outstanding have a \$1.23 weighted average exercise price and 8.64 years of weighted average remaining life for outstanding options and 8.1 years of weighted average remaining life for exercisable options. Of these options, 2,321,472 are currently exercisable.

As of March 31, 2023, the warrants outstanding have a \$3.50 weighted average exercise price.

Common Stock and Warrant Issuances

During the three months ended March 31, 2023, the Company accrued approximately \$1,705,234 in interest expense for these obligations to issue common stock. During the three months ended March 31, 2022, the Company accrued \$1,173,458 million in interest expense for these obligations to issue common stock.

During the three months ended March 31, 2023 the Company issued a total of 4,381,330 shares of restricted common stock to accredited investors and consultants, with the following detail:

- 1,111,081 shares of common stock with a fair value of \$1,705,234 to lenders for interest paid-in-kind;
- 990,500 shares with a fair value of \$1,419,335 for services rendered;
- 203,613 shares with a fair value of \$509,033 for conversions of debt principal and interest;
- 117,552 shares for stock option exercises (at an exercise price of \$0.69 per share);
- 73,694 shares with a fair value of \$102,435 for dividends paid-in-kind;
- 783,150 shares with a fair value of \$1,087,751 for new convertible debt issuances;
- 568,200 shares with a fair value of \$1,029,939 for convertible debt extensions;
- 40,000 shares with a fair value of \$100,000 for sale of common, and
- 493,540 shares for the conversion of preferred stock to common stock.

During the three months ended March 31, 2023, the Company issued 100,000 warrants (five-year term at a \$3.50 exercise price) to acquire common stock at a fair value of \$61,609 to a consultant for professional services.

On various dates in the three months ended March 31, 2022 the Company issued a total of 1,073,610 shares of restricted common stock to accredited investors and consultants. 140,200 of the shares with a fair value of \$350,500 were issued for the conversion of debt and interest for common stock, 558,100 of the shares with a fair value of \$1,173,458 were issued for interest paid-in-kind, 37,000 of the shares with a fair value of \$77,700 were issued for services rendered, 31,810 shares with a fair value of \$64,256 for dividends paid-in-kind, 92,000 shares with a fair value of \$142,480 for new convertible debt issuances and 214,500 shares with a fair value of \$472,900 for debt extension.

During the three months ended March 31, 2022, we issued 100,000 warrants (three-year term at a \$3.50 exercise price) to acquire common stock at a fair value of \$87,436 to a lender in conjunction with signing of new convertible loans. We also issued 30,000 warrants (three-year term at a \$3.50 exercise price) with a fair value of \$39,761 for services rendered and 100,000 warrants (three-year term at a \$3.50 exercise price) with a fair value of \$132,537 for debt extension.

7) Subsequent Events

From April 1, 2023 through May 10, 2023 the Company entered into five (5) new merchant cash loan agreements collecting approximately \$1.0 million (obligating the Company to repay approximately \$58,000 per week for 6 months to 18 months) and issued two (2) convertible loans with a principal balance of \$309,000. The terms of the notes are 3-12 months with an interest rate of 5% to 5.77% and convertible into the Company's common stock at a fixed rate of \$2.50 per share. In this time the Company also issued 50,000 shares of common stock and 25 shares of Series BB preferred stock with the convertible loans, 300,000 shares of common stock for accrued interest paid-in-kind and repaid a \$300,000 convertible note on April 4, 2023.

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 similar 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 will have sufficient liquidity to finance normal operations for the foreseeable future;
- the options we may pursue in light of our financial condition;
- the potential applications for Ultra Shear Technology (UST);
- the potential applications of the BaroFold high-pressure protein refolding and disaggregation technology
- 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;
- the expected number of pressure cycling technology ("PCT") and constant pressure ("CP") based units that we believe will be installed and the expected revenues from the sale of consumable products, extended service contracts, and biopharma contract services;
- our belief that PCT has achieved initial market acceptance in the mass spectrometry and other markets;
- 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, biopharma contract services and Ultra Shear Technology;
- general economic conditions;
- the anticipated future financial performance and business operations of our company;
- our reasons for resources expended 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 and protein characterization in biomarker discovery, forensics, and histology, as well as 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 and services;
- 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, as well as for our other products and services in both the BaroFold and Ultra Shear Technology areas.

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, 2022 and in this Report. We qualify all of our forward-looking statements by these cautionary statements.

Pressure BioSciences, Inc. (OTCQB: PBIO) (the “Company”) is a leader in the development & sale of innovative, enabling, high pressure technology-based instruments, consumables, and services for the life sciences and other industries worldwide. Our products/services are based on three patented, high-pressure platforms: (i) Pressure Cycling Technology (“PCT”), (ii) BaroFold Technology (“BaroFold”), and (iii) Ultra Shear Technology (“UST”).

The Company was founded on the belief that its PCT Platform had the potential to significantly increase the quality of sample preparation in both research and clinical settings. Although this premise has been proven true, and although PBI has been successful in installing its PCT Platform in the laboratories of key opinion leaders worldwide, the Company now believes – based on market feedback – that the commercial potential for its UST Platform far exceeds the potential of the PCT Platform. Consequently, in January 2022, PBI made the critical decision to immediately shift its primary business focus from PCT to its innovative UST Platform.

The UST Platform (7 issued patents) is based on the use of intense shear forces from ultra-high pressure discharge (greater than 20,000 psi) through a dynamically-controlled nano-gap valve under precisely controlled temperatures. UST has been shown to turn hydrophobic (water-repelling) oil-based supplements (e.g., CBD, curcumin), therapeutics (e.g., prednisone), and other active ingredients (e.g., retinol, astaxanthin) into long-term stable, effectively water-soluble, highly bioavailable, oil-in-water nanoemulsion formulations. The Company began commercialization of the UST Platform in May 2022, and executed agreements have subsequently been announced with three CBD companies and one cosmeceutical/skincare company for commercialization in Q4 2022.

The BaroFold Platform (8 issued patents) can be used to significantly improve the quality and production costs of protein biotherapeutics. It employs high pressure manipulations for the disaggregation, unfolding and controlled refolding of proteins to their desired native structures at yields and efficiencies not achievable using existing technologies. The BaroFold Platform has been shown to remove protein aggregates in biotherapeutic drug manufacturing, thereby improving product efficacy, safety, and cost for both new-drug entities and biosimilar (follow-on biologic) products. It is scalable and practical for standard manufacturing processes.

The PCT Platform (15 issued patents) uses alternating cycles of hydrostatic pressure between ambient and ultra-high pressures to control bio-molecular interactions safely and reproducibly in the area of sample preparation (e.g., the critical steps performed by tens of thousands of scientists worldwide prior to analytical measurements, such as cell lysis and biomolecule extraction from tissue samples). Our primary focus is on making our recently released, GMP-compliant, next generation PCT-based Barocycler EXTREME system available globally to biopharmaceutical drug manufacturers for use in the design, development, characterization, and quality control of biotherapeutic drugs. We currently have over 350 PCT Systems placed in approximately 225 academic, government, pharmaceutical, and biotech research laboratories worldwide. There are currently over 200 independent publications highlighting the advantages of using the PCT Platform in scientific research & clinical laboratories.

2023 Key Accomplishments

From January 1, 2023 to May 8, 2023, we accomplished the following:

- **April 21, 2023:** PBIO unveils powerful THC market leapfrog opportunity with exclusive licensing of UltraShear nanoemulsion processing platform.
- **April 18:** PBIO announces expansion into strategic manufacturing facilities with premier process tech company.
- **April 14:** PBIO reports Q4 and FY 2022 financial results – offers guidance for a strong 2023.
- **April 6, 2023:** PBIO and NutraLife Biosciences renew partnership for development and distribution of next generation nutraceuticals.
- **March 28:** Company reports fresh sales momentum for PBI Agrochem.
- **March 22:** PBIO receives \$1.5 million contract for UltraShear nanoemulsified CBD.
- **March 1:** Company announces the exchange of over \$10 million of debt into equity.
- **February 1:** Company receives record order (nearly \$600,000) for 16 PCT instruments.
- **January 27:** PBIO and One World Products partner to develop CBD-Nano sports performance/recovery drink.
- **January 19:** Dramatic consumer testing results confirm UltraShear nanoemulsion oral spray delivers first effects and maximization in lightning speed – simple, reliable dosing delivers profoundly improved results.

Results of Operations

The following disclosure compares the results of operations for the quarter ended March 31, 2023 (“Q1 2023”) with March 31, 2022 (“Q1 2022”).

Products and Services Revenue

We recognized total revenue of \$740,600 for Q1 2023 compared to \$480,000 for Q1 2022, a 54% increase. This increase in revenue was primarily attributable to a \$208,350 increase in sales of PCT instrumentation and consumables and an increase of \$47,388 of PBI Agrochem products.

Cost of Products and Services

The cost of products and services was \$358,628 for Q1 2023 compared to \$314,363 for Q1 2022. Gross profit margin on products and services increased to 52% in Q1 2023 compared to 35% in Q1 2022. The increase in gross profit margin was attributable to approximately \$130,000 of Agrochem products sold in Q12023 at no cost due to 2022 inventory write-off and approximately \$43,000 of freight charges in Q12022 to receive Agrochem products.

Research and Development

Research and development expenses were \$435,646 for Q1 2023 compared to \$281,589 for Q1 2022. The reported increase was 55% and was mainly due to approximately \$171,000 of stock-based compensation expense for employee stock options issued in Q12023.

Selling and Marketing

Selling and marketing expenses were \$226,015 for Q1 2023 compared to \$66,462 for Q1 2022. The reported increase was primarily attributable to approximately \$72,000 of stock-based compensation expense for employee stock options issued in Q12023 and the hiring of one Marketing FTE in Q22022.

General and Administrative

General and administrative expenses were \$3,358,056 for Q1 2023 compared to \$903,885 for Q1 2022, an increase of \$2,454,171 or 272%. The increase was primarily due to approximately \$1,100,000 of stock-based compensation expense for employee and BOD and financial consultant stock options issued in Q12023 and approximately \$1,500,000 of expense for shares/warrants issued to consultants.,

Operating Loss

Operating loss was \$3,637,745 for Q1 2023 compared to \$1,086,299 for Q1 2022, an increase of \$2,551,446 or 235%.

Interest Expense, net

Interest expense was \$3,893,686 for Q1 2023 compared to \$2,579,161 for Q1 2022. The increase was attributable to an increase in convertible debt and merchant cash loans, in addition to stock issuances for interest paid in kind and stock issued for extensions.

Unrealized gain on investment in equity securities

Unrealized gain on investments in equity securities was \$8,061 for Q1 2023 compared to an unrealized gain of \$19,138 for Q1 2022. The reported change was attributable to movement in the market price of the Company’s investment in Nexity.

Loss on extinguishment of liabilities

In connection with debt extensions and forgiveness, we recognized a net gain of \$659,277 for Q1 2023 compared to \$589,850 of losses for Q1 2022.

Net loss attributable to common stockholders

Net loss attributable to common stockholders was \$7,289,641 (\$0.46 per share) for Q1 2023 compared to \$4,671,834 (\$0.48 per share) for Q1 2022. The decrease in loss per share was attributable to an increase in weighted shares outstanding.

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 March 31, 2023, 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. As described in Notes 5 and 6 of the accompanying consolidated financial statements, we have been successful in raising debt and equity capital. We received approximately \$3.3 million in net proceeds from loans in the three months ended March 31, 2023. We have efforts in place to continue to raise cash through debt and equity offerings. (See Note 7 to the financial statements)

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

Net cash used in operations for the three months ended March 31, 2023 was \$422,211 as compared to \$756,282 for the three months ended March 31, 2022.

Net cash used in investing activities for the three months ended March 31, 2023 was \$3,000 compared to \$1,135 in the three months ended March 31, 2022.

Net cash provided by financing activities for the three months ended March 31, 2023 was \$660,369 as compared to \$743,909 for the three months ended March 31, 2022.

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 March 31, 2023, 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 March 31, 2023 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, 2022. 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 once we generate significantly more revenue or raise significantly more working capital.

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 March 31, 2023, 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 March 31, 2023 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, 2022 and, in this Item, 1A. 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 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 1A of our 10-K for the year ended December 31, 2022.

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

Except where noted, all the securities discussed in this Part II, Item 2 were issued in reliance on the exemption under Section 4(a)(2) of the Securities Act.

On various dates in the three months ended March 31, 2023 the Company issued a total of 4,381,330 of its common shares as follows:

- 117,552 shares from option exercises;
- 990,500 shares for professional services;
- 566,200 shares for debt extensions;
- 203,613 shares for conversion of debt and interest;
- 493,540 shares for conversion of preferred stock;
- 73,694 shares for dividends paid-in-kind;
- 1,111,081 shares for interest paid-in-kind;
- 783,150 shares for shares issued with debt, and
- 40,000 shares from sale of common shares.

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* [Certification by the Principal Executive Officer of Registrant pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 \(Rule 13a-14\(a\) or Rule 15d-14\(a\)\)](#)

31.2* [Certification by the Principal Financial Officer of Registrant pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 \(Rule 13a-14\(a\) or Rule 15d-14\(a\)\)](#)

32.1** [Certification by the Principal Executive Officer pursuant to 18 U.S.C. 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*](#)

32.2** [Certification by the Principal Financial Officer pursuant to 18 U.S.C. 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*](#)

101.INS* Inline XBRL Instance Document

101.SCH* Inline XBRL Taxonomy Extension Schema Document

101.CAL* Inline XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF* Inline XBRL Taxonomy Extension Definition Linkbase Document

101.LAB* Inline XBRL Taxonomy Extension Label Linkbase Document

101.PRE* Inline XBRL Taxonomy Extension Presentation Linkbase Document

104 Cover Page Interactive Data File (embedded within the Inline XBRL 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: May 12, 2023

By: /s/ Richard T. Schumacher

Richard T. Schumacher
President & Chief Executive Officer
(Principal Executive Officer and Principal Financial Officer)

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

I, Richard T. Schumacher, certify that:

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

Dated: May 12, 2023

/s/ Richard T. Schumacher

Richard T. Schumacher
President and Chief Executive Officer
Principal Executive Officer

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

I, Richard T. Schumacher, certify that:

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

Dated: May 12, 2023

/s/ Richard T. Schumacher

Richard T. Schumacher
Principal Financial Officer

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

In connection with the Quarterly Report on Form 10-Q of Pressure BioSciences, Inc., a Massachusetts corporation (the “Company”) for the period ended March 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Richard T. Schumacher, President and Chief Executive Officer of the Company, do hereby certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) that:

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

Date: May 12, 2023

By: /s/ Richard T. Schumacher

Richard T. Schumacher
President & Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement required by Section 906 has been provided to Pressure BioSciences, Inc. and will be retained by Pressure BioSciences, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

In connection with the Quarterly Report on Form 10-Q of Pressure BioSciences, Inc., a Massachusetts corporation (the “Company”) for the period ended March 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Richard T. Schumacher, Principal Financial Officer of the Company, do hereby certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) that:

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

Date: May 12, 2023

By: /s/ Richard T. Schumacher

Richard T. Schumacher
President & Chief Executive Officer
(Principal Financial Officer)

A signed original of this written statement required by Section 906 has been provided to Pressure BioSciences, Inc. and will be retained by Pressure BioSciences, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.
