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November 17, 2009

VIA EDGAR

United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, NE  
Washington, D.C. 20549-6010  
Attn: Mr. Kevin L. Vaughn

Re: Pressure BioSciences, Inc.  
Form 10-K for the year ended December 31, 2008  
File No. 0-21615

Dear Mr. Vaughn:

On behalf of Pressure BioSciences, Inc. (the "Company"), we are responding to comments by the staff of the Securities and Exchange Commission (the "Commission") contained in your letter dated November 5, 2009, relating to the Company's Form 10-K for the year ended December 31, 2008 and Form 10-Q for the quarter ended June 30, 2009.

**Form 10-K for the year ended December 31, 2008**

Note 2 – Summary of Significant Accounting Policies, page 41

(vi) Inventories, page 43

1. SEC Comment - Please tell us and revise future filings to disclose your methodology for determining lower of cost or market. In this regard, disclose how you determine the cost basis. Refer to paragraph 330-10-50-1 of the FASB Accounting Standards Codification.

Company Response. Inventories are stated at the lower of cost (average cost) or market (sales price). The cost of Barocyclers consists of the cost charged by the contract manufacturer. The cost of manufactured goods includes material, freight-in, direct labor, and applicable overhead. As of September 30, 2009, the recorded cost of all categories was less than the recent sales price. The Company will revise future filings to disclose its methodology for determining lower of cost or market.

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(xiii) Accounting for Stock-Based Compensation, page 45

2. *SEC Comment - We note that you utilize the Black-Scholes option pricing model to determine the fair value of your equity-based compensation. Please revise future filings to explain how you determined the assumptions utilized in the model including the volatility, expected life, etc. Refer to the guidance in 718-10-50-2f of the FASB Accounting Standard Codification.*

Company Response –

Determining Fair Value of Stock Option Grants

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

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

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

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

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

The Company will revise future filings to explain how it determined the assumptions utilized in Black-Scholes option pricing model.

Item 9A(T). Controls and Procedures, page 59

3. *SEC Comment – We note your disclosure that management has concluded that your disclosure controls and procedures are effective “in enabling [you] to record, process, summarize and report information required to be included in [y]our periodic SEC filings within the required time period.” The language that is currently included after the word “effective” in your disclosure appears to be superfluous, since the meaning of “disclosure controls and procedures” is established by Rule 13a-15(e) of the Exchange Act. However, if you do not wish to eliminate this language, please revise future filings so that the language that appears after the word “effective” is substantially similar in all material respects to the language that appears in the entire two-sentence definition of “disclosure controls and procedures” set forth in Rule 13a-15(e).*

Company Response – The Company will revise future filings to eliminate the superfluous disclosure after the word “effective”.

4. SEC Comment – *We note your statement that “. . . any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives.” Please [revise] your future filings to state clearly, if true, that your principal executive officer and principal financial officer concluded that your disclosure controls and procedures are effective at the reasonable assurance level. In the alternative, please remove the reference to the level of assurance of your disclosure controls and procedures. Please refer to Section II.F.4 of Management’s Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports. SEC Release No. 33-8238 on our website at [www.sec.gov/rules/final/33-8238.htm](http://www.sec.gov/rules/final/33-8238.htm).*

Company Response – The Company will revise future filings to either remove the reference to the level of assurance or to state clearly that the Company’s principal executive officer and principal financial officer concluded that the Company’s disclosure controls and procedures are effective at the reasonable assurance level.

Exhibit 31.1 and Exhibit 31.2

5. SEC Comment – *We note that the identification of the certifying individual at the beginning of the certification required by Exchange Act Rule 13a-14(a) also includes the title of the certifying individual. In future filings, the identification of the certifying individual at the beginning of the certification should be revised so as not to include the individual’s title.*

Company Response – The Company will revise future filings to remove the reference to the certifying officer’s title.

Exhibit 31.2

6. SEC Comment - We note that your president and chief executive officer has provided the certifications required by Item 601(b)(31) of the Regulation S-K in his role as principal executive officer and principal financial officer. However, we note that the certificate included in Exhibit 31.2 is not in the proper form in that the reference to internal control over financial reporting in the introductory language to paragraph 4 of the certificate has been omitted. Please ensure that all certifications provided in future filings are in the exact form set forth in Item 601(b)(31) of Regulation S-K. In this regard, please note the guidance in SEC Compliance and Disclosure Interpretation 161.03, which indicates that if the same individual is both the principal executive officer and the principal financial officer, that individual may provide just one certification and provide both titles underneath the signature.

Company Response – The Company will ensure all certifications provided in future filings are in the exact form set forth in Item 601(b)(31) of Regulation S-K. The Company has also noted the guidance in SEC Compliance and Disclosure Interpretation 161.03.

**Form 10-Q for the quarter ended June 30, 2009**

Note 5 – Stockholders’ Equity, page 11

7. SEC Comment - We note that you sold 156,980 preferred stock units in February 2009. We further note that you valued the warrants using the Black Scholes model. Please address the following:
- Tell us and revise your future filings to disclose all significant assumptions you used in determining the value of the warrants you issued.
  - Further to the above, discuss how you considered the \$489,803 deemed dividend in your earnings per share presentation on pages 2 and 7. Refer to paragraph 260-10-45 11 of the FASB Accounting Standards Codification.

Company Response –

A) The warrants granted in connection with the preferred stock units were valued based on a Black-Scholes pricing model at the date of the grant. The preferred and common warrants were granted with an exercise price of \$1.25 and \$2.00 per share of common stock, respectively. Both grants to purchase 1,569,800 underlying shares of common stock vested immediately. The total value of the warrants was calculated to be \$1.4 million and a non cash charge of \$1.8 million was recorded to Stockholders’ Equity in the first quarter of 2009. The assumptions for the Black-Scholes pricing model are represented in the table below.

Assumptions for Black-Scholes Pricing Model:

	<b>Preferred</b>	<b>Common</b>
Exercise price	\$ 1.25	\$ 2.00
Stock price	\$ 0.90	\$ 0.90
Volatility	142%	109%
Life of warrant (in months)	15	30
Treasury rate	0.875%	1.375%
Fair value per warrant	\$ 0.45	\$ 0.41

B) The \$489,803 represents the value of the adjustment to additional paid in capital related to the beneficial conversion feature of the preferred stock. The value adjustment was calculated by subtracting the fair market value of the underlying common stock on February 12, 2009 as convertible from the Series A Preferred Stock from the fair market value of the preferred stock as determined when the company performed a fair market value allocation of the proceeds to the preferred stock and warrants. Accordingly, this amount is not factored in the earnings per share calculation.

The Company will revise future filings in response to the Staff's comment.

In connection with the response to the Staff's comments, attached is a letter from the Company with respect to the required acknowledgements.

We thank you for your prompt attention to this letter responding to your comments and look forward to hearing from you at your earliest convenience. Please direct any questions concerning this filing to my attention at 617.204.5107.

Very truly yours,

/s/ Steven R. London

Steven R. London

cc: Richard T. Schumacher, President and Chief Executive Officer, Pressure BioSciences, Inc.

November 17, 2009

US Securities and Exchange Commission  
Division of Corporate Finance  
100 F Street N.E  
Washington DC 20549  
Attn: Mr. Kevin L. Vaughn

Re: Pressure BioSciences, Inc.  
Form 10-K for the year ended December 31, 2008  
File No. 0-21615

Dear Mr. Vaughn:

Pursuant to the comment letter of the staff of the Securities and Exchange Commission (the "Commission") dated November 5, 2009 in connection with the Form 10-K for the year ended December 31, 2008 and the Form 10-Q for the quarter ended June 30, 2009, each filed by Pressure BioSciences, Inc. (the "Company") with the Commission, the Company hereby acknowledges as follows:

1. The Company is responsible for the adequacy and accuracy of the disclosure in its filings.
2. Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and
3. The Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Yours sincerely,

/s/ Richard T. Schumacher  
President, Chief Executive Officer and Treasurer



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