SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE TO-I/A

(RULE 14d-100)

TENDER OFFER STATEMENT UNDER SECTION 14(d)(1) OR 13(e)(1) OF THE SECURITIES EXCHANGE ACT OF 1934 (AMENDMENT NO. 2)

PRESSURE BIOSCIENCES, INC.

(Name of Subject Company (Issuer))

PRESSURE BIOSCIENCES, INC.

(Names of Filing Persons (offeror and issuer)

COMMON STOCK, \$.01 PAR VALUE PER SHARE

and associated

Preferred Share Purchase Rights

(Title of Class of Securities)

74112E 109

(CUSIP Number of Class of Securities)

Richard T. Schumacher President and Chief Executive Officer Pressure BioSciences, Inc. 217 Perry Parkway, Gaithersburg, MD 20877 (301) 208-8100

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications on Behalf of the Filing Person)

Copy to:

Steven R. London, Esq.
Brown Rudnick Berlack Israels LLP
One Financial Center
Boston, MA 02111
(617) 856-8200

CALCULATION OF FILING FEE

Transaction Valuation*

\$19,250,000

\$2,266

- * Calculated solely for purposes of determining the filing fee. The transaction value assumes the purchase by the registrant of 5,500,000 shares of its common stock at \$3.50 per share.
- ** \$117.70 per \$1,000,000 of the transaction valuation.
- Check the box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously Paid: \$2,266

Form or Registration No.: Schedule TO-I

Filing Party: Pressure BioSciences, Inc.

Date Filed: December 27, 2004

Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

	third-party tender offer subject to Rule 14d-1.
×	issuer tender offer subject to Rule 13e-4.
×	going-private transaction subject to Rule 13e-3.
	amendment to Schedule 13D under Rule 13d-2.
Check the following box if the filing is a final amendment reporting the results of the tender offer: \Box	

INTRODUCTION

This Amendment No. 2 amends and supplements the Tender Offer Statement on Schedule TO-I dated December 27, 2005, as amended and supplemented by Amendment No. 1 to Schedule TO-I filed on January 21, 2005 (the "Schedule TO-I") relating to the issuer tender offer by Pressure Biosciences, Inc., a Massachusetts corporation formerly known as Boston Biomedica, Inc. (the "Company" or "Pressure BioSciences"), to purchase up to 5,500,000 shares of its common stock, \$0.01 par value per share (the "Shares"). Pressure BioSciences is offering to purchase these Shares at a purchase price of \$3.50 per Share, net to the seller in cash, without interest. Pressure BioSciences' tender offer is made upon the terms and subject to the conditions set forth in the Offer to Purchase dated December 27, 2004 (the "Offer to Purchase"), a copy of which is attached as Exhibit (a)(1)(A) to the Company's Schedule TO-I, and in the related Letter of Transmittal (the "Letter of Transmittal"), a copy of which is attached as Exhibit (a)(1)(B) to the Company's Schedule TO-I (and which, together with the Offer to Purchase, as amended or supplemented from time to time, constitute the "Offer") and are herein incorporated by reference.

Item 4. TERMS OF THE TRANSACTION.

- (a) Material Terms.
 - (1) Tender Offers

Item 4(a)(1)(iii) of the Schedule TO-I is hereby amended and supplemented to include the following:

"The expiration date of the Offer has been extended from 10:00 a.m., Eastern Standard Time, on Wednesday, January 26, 2005, until 10:00 a.m., Eastern Standard Time, on Friday, February 4, 2005. Accordingly, the Offer, proration period and withdrawal rights will expire on 10:00 a.m., Eastern Standard Time, on Friday, February 4, 2005, unless we further extend the Offer."

Item 12. EXHIBITS.

- (a) (1)(A) Offer to Purchase dated December 27, 2004.(1)
- (a) (1)(B) Letter of Transmittal.(1)
- (a) (1)(C) Notice of Guaranteed Delivery of Shares of Common Stock.(1)
- (a) (1)(D) Letter to Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees.(1)
- (a) (1)(E) Letter to Clients for use by Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees.(1)
- (a) (1)(F) Guidelines for Certification of Taxpayer Identification Number on Substitute Form W-9.(1)
- (a) (5)(A) Press Release dated January 25, 2005
- (1) The foregoing exhibits were filed as exhibits to the Company's Schedule TO-I filed with the Commission on December 27, 2004, and are incorporated herein by this reference.

SIGNATURES

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

PRESSURE BIOSCIENCES, INC.

By: /s/ RICHARD T. SCHUMACHER

Name: Richard T. Schumacher

Title: President and Chief Executive Officer

Dated: January 25, 2005

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INTRODUCTION

<u>Item 4. TERMS OF THE TRANSACTION.</u> <u>Item 12. EXHIBITS.</u>

SIGNATURES

Exhibit (a)(5)(A)

FOR IMMEDIATE RELEASE

Investor Contacts:

Richard T. Schumacher, Founder & CEO R. Wayne Fritzsche, Chairman

Pressure BioSciences, Inc. (301) 208-8100 (T)

PRESSURE BIOSCIENCES ANNOUNCES EXTENTION OF TENDER OFFER

Expiration Date Extended to Friday, February 4, 2005

GAITHERSBURG, MD, January 25, 2005—Pressure BioSciences, Inc. (NASDAQ: PBIO) today announced that it has extended the expiration date of its tender offer to purchase 5,500,000 shares of its common stock at a purchase price of \$3.50 per share from 10:00 a.m. Eastern Standard Time (EST) on January 26, 2005, until 10:00 a.m. EST on February 4, 2005, unless the Company further extends the expiration date of the tender offer.

Shareholders may still use the original Letter of Transmittal that was mailed to shareholders on December 27, 2004 to tender their shares. Shareholders who have already tendered their shares do not need to take any further action if they wish to remain tendered. Shareholders who do not wish to tender shares but rather remain investors in the Company do not need to return any paperwork.

Pressure BioSciences urges all shareholders to read the Offer to Purchase, Letter of Transmittal, and the related documents because they contain important information, including the terms and conditions of the offer. Shareholders may obtain a copy of the Offer to Purchase, Letter of Transmittal, and the related documents filed with the Securities and Exchange Commission at the Commission's website at www.sec.gov, without charge.

About Pressure BioSciences, Inc.

Following the sale of substantially all the assets and selected liabilities of its BBI Diagnostics and BBI Biotech Divisions to SeraCare Life Sciences, Inc. on September 14, 2004, Boston Biomedica changed its name to Pressure BioSciences, Inc (PBI). PBI is a publicly traded, early-stage company focused on the development of a novel technology called Pressure Cycling Technology (PCT). PCT uses cycles of hydrostatic pressure between ambient and ultra-high levels (35,000 psi and greater) to control bio-molecular interactions. PBI currently holds 13 US and foreign patents covering multiple applications of PCT in the life sciences field, including in such areas as genomic and proteomic sample preparation, pathogen inactivation, control of enzymes, immunodiagnostics, and protein purification. PBI owns a 30% passive investment in Source Scientific, LLC, an instrumentation company that develops and manufactures PBI's PCT equipment, as well as a 4.45% passive investment in Panacos Pharmaceuticals, an antiviral drug discovery and development company.

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Exhibit (a)(5)(A)