

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

**FORM S-8  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**HARVARD BIOSCIENCE, INC.**

*(Exact Name of Registrant as Specified in Its Charter)*

**Delaware**  
(State of Incorporation)

**84 October Hill Road  
Holliston, Massachusetts 01746  
(508) 893-8999**  
*(Address of Registrant's principal executive offices)*

**04-3306140**  
(I.R.S. Employer Identification No.)

**HARVARD BIOSCIENCE, INC. SECOND AMENDED AND RESTATED 2000  
STOCK OPTION AND INCENTIVE PLAN**  
*(Full Title of the Plan)*

**Chane Graziano, Chief Executive Officer  
HARVARD BIOSCIENCE, INC.  
84 October Hill Road  
Holliston, Massachusetts 01746  
(508) 893-8999**  
*(Name, address, including zip code, and telephone number, including area code, of agent for service)*

*With copies to:*

**H. David Henken  
Daniel P. Adams  
Goodwin Procter LLP  
Exchange Place  
Boston, Massachusetts 02109-2881  
(617) 570-1000**

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

Large accelerated filer       Accelerated filer       Non-accelerated filer       Smaller reporting company   
(Do not check if a smaller reporting company)

**Calculation of Registration Fee**

Title of Securities to be Registered	Amount to be Registered(1)(2)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee
Common Stock, par value \$0.01 per share	2,500,000 shares	\$ 4.86	\$12,150,000.00	\$ 477.50

- (1) This Registration Statement relates to 2,500,000 shares of Common Stock, par value \$0.01 per share, of Harvard Bioscience, Inc. ("Common Stock") available for issuance under the Harvard Bioscience, Inc. Second Amended and Restated 2000 Stock Option and Incentive Plan (together with previous versions of such plan, the "Plan"); plus such indeterminate number of additional shares of Common Stock as may be required pursuant to the Plan in the event of a stock dividend, stock split, split-up, recapitalization or other similar event. This Registration Statement also relates to the Rights to purchase shares of Series A Junior Participating Cumulative Preferred Stock of Harvard Bioscience, Inc. (the "Company") which are attached to all shares of Common Stock pursuant to the terms of the Company's Shareholder Rights Agreement dated February 5, 2008. Until the occurrence of certain prescribed events, the Rights are not exercisable, are evidenced by the certificates for the Common Stock and will be transferred only with such stock.
- (2) The Company previously filed a Registration Statement on Form S-8 on January 17, 2001 (SEC File No. 333-53848), registering the issuance of 4,849,096 shares of Common Stock under the Plan. On April 15, 2003, the Company filed a Registration Statement on Form S-8 (SEC File No. 333-104544) registering the issuance of 787,413 additional shares of Common Stock under the Plan. On June 28, 2006, the Company filed a Registration Statement on Form S-8 (SEC File No. 333-135418) registering the issuance of 2,067,060 additional shares of Common Stock under the Plan. By filing this Registration Statement in accordance with Instruction E to Form S-8, the Company registers the issuance of the 2,500,000 additional shares of Common Stock approved for issuance under the Plan at the Annual Meeting of Stockholders of the Company held on May 15, 2008.
- (3) This estimate is made pursuant to Rule 457(c) and (h) under the Securities Act of 1933, as amended (the "Securities Act"), solely for the purpose of determining the amount of the registration fee. The registration fee is based upon the average of the high and low sales prices for a share of Common Stock on May 15, 2008, as reported on the NASDAQ Global Market.

The Company previously filed a Registration Statement on Form S-8 with the Securities and Exchange Commission on January 17, 2001 (SEC File No. 333-53848) in connection with the Plan (the "Original Filing"). This Registration Statement registers additional shares of the Company's Common Stock to be issued pursuant to the Plan. The contents of the Original Filing are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

## PART II

### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 8. Exhibits

The exhibits listed below represent a complete list of exhibits filed or incorporated by reference as part of this Registration Statement.

- (1)3.1 Second Amended and Restated Certificate of Incorporation of Harvard Bioscience, Inc.
- (1)3.2 Amended and Restated Bylaws of Harvard Bioscience, Inc.
- (2)3.3 Amendment No. 1 to Amended and Restated Bylaws of Harvard Bioscience, Inc. (as adopted October 30, 2007)
- (1)4.1 Specimen certificate for shares of Common Stock, \$0.01 par value, of Harvard Bioscience, Inc.
- (1)4.2 Amended and Restated Securityholders' Agreement dated as of March 2, 1999 by and among Harvard Apparatus, Inc., Pioneer Partnership II, Pioneer Capital Corp., First New England Capital, L.P. and Citizens Capital, Inc. and Chane Graziano and David Green
- (3)4.3 Shareholder Rights Agreement, dated as of February 5, 2008 between Harvard Bioscience, Inc., and Registrar and Transfer Company, as Rights Agent
- \* 5.1 Legal opinion from Goodwin Procter LLP
- \* 23.1 Consent of KPMG LLP, as independent registered public accounting firm
- 23.2 Consent of Goodwin Procter LLP (contained in the opinion filed as Exhibit 5.1 to this Registration Statement)
- 24.1 Power of attorney (included on the signature page to this Registration Statement)

\* Filed herewith.

- (1) Previously filed as an exhibit to the Company's Registration Statement on Form S-1 (File No. 333-45996) and incorporated by reference thereto.
- (2) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed on November 1, 2007) and incorporated by reference thereto.
- (3) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed on February 8, 2008) and incorporated by reference thereto.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Holliston, Massachusetts, on this 19th day of May, 2008.

HARVARD BIOSCIENCE, INC.

By: /s/ Chane Graziano  
Chane Graziano  
*Chief Executive Officer*

**POWER OF ATTORNEY**

KNOW ALL BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints each of Chane Graziano and Susan M. Luscinski as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement (or any Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the date indicated. Each person listed below has signed this Registration Statement as an officer or director of Harvard Bioscience, Inc.

Signature	Title	Date
/s/ Chane Graziano Chane Graziano	Director and Chief Executive Officer (Principal Executive Officer)	May 19, 2008
/s/ Susan M. Luscinski Susan M. Luscinski	Chief Operating Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	May 19, 2008
/s/ Robert Dishman Robert Dishman	Director	May 19, 2008
/s/ Neal J. Harte Neal J. Harte	Director	May 19, 2008
/s/ David Green David Green	Director	May 19, 2008
/s/ John F. Kennedy John F. Kennedy	Director	May 19, 2008
/s/ Earl R. Lewis Earl R. Lewis	Director	May 19, 2008
/s/ George Uveges George Uveges	Director	May 19, 2008

## EXHIBIT INDEX

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Goodwin Procter LLP  
Counsellors at Law  
Exchange Place  
Boston, MA 02109

T: 617.570.1000  
F: 617.523.1231  
goodwinprocter.com

May 19, 2008

Harvard Bioscience, Inc.  
84 October Hill Road  
Holliston, MA 01746

Re: Securities Being Registered under Registration Statement on Form S-8

Ladies and Gentlemen:

This opinion letter is furnished to you in connection with your filing of a Registration Statement on Form S-8 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to an aggregate of 2,500,000 shares (the "Shares") of Common Stock, \$0.01 par value per share (the "Common Stock"), of Harvard Bioscience, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's Second Amended and Restated 2000 Stock Option and Incentive Plan (the "Plan").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinion expressed below. We have relied, without independent verification, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion expressed below is limited to the Delaware General Corporation Law (which includes applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the Delaware General Corporation Law and the Delaware Constitution).

For purposes of the opinion expressed below, we have assumed that a sufficient number of authorized but unissued shares of the Company's Common Stock will be available for issuance when the Shares are issued.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Plan, will be validly issued, fully paid and nonassessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/S/ GOODWIN PROCTER LLP

GOODWIN PROCTER LLP

Consent of Independent Registered Public Accounting Firm

The Board of Directors  
Harvard Bioscience, Inc.:

We consent to the use of our report dated March 11, 2008, with respect to the consolidated balance sheets of Harvard Bioscience, Inc. as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2007, and our report dated March 11, 2008 with respect to the effectiveness of internal control over financial reporting as of December 31, 2007, which reports appear in the December 31, 2007 annual report on Form 10-K/A of Harvard Bioscience, Inc., incorporated herein by reference in this Registration Statement on Form S-8.

Our report on the consolidated financial statements includes an explanatory paragraph regarding the adoption of the Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-Based Payment*, effective January 1, 2006, Statement of Financial Accounting Standards, No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans-an amendment of FASB Statements No. 87, 88, 106 and 132(R)*, effective December 31, 2006, and the Company changed its method of quantifying errors in 2006.

Our report dated March 11, 2008, on the effectiveness of internal control over financial reporting contains an explanatory paragraph that states that Harvard Bioscience, Inc. acquired Panlab s.l. ("Panlab") during 2007, and management excluded from its assessment of the effectiveness of Harvard Bioscience, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2007, Panlab's internal control over financial reporting associated with total assets of \$11,895,236 and total revenues of \$2,939,872 included in the consolidated financial statements of Harvard Bioscience, Inc. and subsidiaries' as of and for the year ended December 31, 2007. Our audit of internal control over financial reporting of Harvard Bioscience, Inc. and subsidiaries also excluded an evaluation of the internal control over financial reporting of Panlab.

/s/ KPMG LLP  
Boston, Massachusetts  
May 19, 2008