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)

84 October Hill Road Holliston, Massachusetts 01746 (508) 893-8999

(State of Incorporation) (Address of Registrant's principal executive offices)

Delaware

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

HARVARD BIOSCIENCE, INC. 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 copy to:

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

Calculation Of Registration Fee

| | Amount to be | Proposed Maximum Offering Price | Proposed Maximum Aggregate | Amount of |
|--|------------------|---------------------------------------|----------------------------------|------------------|
| Title of Securities to be Registered | Registered(1)(2) | Per Share(3) | Offering Price(3) | Registration Fee |
| Common Stock, par value \$0.01 per share | 2,067,060 shares | \$ 4.07 | \$ 8,423,269.5 | \$ 901.29 |

- (1) This Registration Statement relates to 2,067,060 shares of Common Stock, par value \$0.01 per share, of Harvard Bioscience, Inc. ("Common Stock") available for issuance under the Harvard Bioscience Inc., Amended and Restated 2000 Stock Option and Incentive 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, forfeiture of stock under the Plan or other similar event.
- Harvard Bioscience, Inc. (the "Company") previously filed a registration statement on Form S-8 on January 17, 2001 under file number 333-53848 (the "Original Filing") identifying shares to be registered in connection with the Plan. Section 3(a) of the Plan provides that the maximum number of shares of Common Stock reserved for issuance under the Plan shall be increased, as of each June 30 and December 31 following the closing of the Company's initial public offering by an additional positive number equal to fifteen percent of the shares of Common Stock issued by the Company during the six-month period then ended (excluding shares issued in the Company's initial public offering). On April 15, 2003 the Company filed a Registration Statement in accordance with Instruction E to Form S-8 and registered 787,413 additional shares of Common Stock. Since then, pursuant to Section 3(a) of the Plan, the maximum number of shares of Common Stock reserved for issuance under the Plan has increased by 67,060 shares. By filing this Registration Statement in accordance with Instruction E to Form S-8, the Company registers this additional number of shares plus the increase in 2,000,000 shares approved at the Annual Meeting of Stockholders of the Company held on May 18, 2006.
- (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 June 26, 2006, as reported on the Nasdaq National 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). The Original Filing was filed in connection with the Company's 2000 Stock Option and Incentive Plan. This Registration Statement registers additional shares of the Company's Common Shares 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) 5.1 Legal opinion from Goodwin Procter LLP
- (1)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)
- (2)99.1 Harvard Bioscience, Inc. Amended and Restated 2000 Stock Option and Incentive Plan
- (1) Filed herewith.

⁽²⁾ Previously filed as Appendix A to the Company's Definitive Proxy Statement on Schedule 14A, filed with the Commission on April 10, 2006 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 28th day of June, 2006.

HARVARD BIOSCIENCE, INC.

By: /s/ Chane Graziano

Chane Graziano
Chief Executive Officer
(Principal Executive Officer)

/s/ Bryce Chicoyne

Bryce Chicoyne Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints each of Chane Graziano and Bryce Chicoyne 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) | June 28, 2006 |
| /s/ Bryce Chicoyne Bryce Chicoyne | Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) | June 28, 2006 |
| /s/ Robert Dishman Robert Dishman | Director | June 28, 2006 |
| /s/ Neal J. Harte Neal J. Harte | Director | June 28, 2006 |
| /s/ David Green David Green | Director | June 28, 2006 |
| /s/ John F. Kennedy John F. Kennedy | Director | June 28, 2006 |
| /s/ Earl R. Lewis Earl R. Lewis | Director | June 28, 2006 |
| /s/ George Uveges George Uveges | Director | June 28, 2006 |

EXHIBIT INDEX

| Exhibit | |
|---------|---|
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| | |

⁽¹⁾ Filed herewith.

⁽²⁾ Previously filed as Appendix A to the Company's Definitive Proxy Statement on Schedule 14A, filed with the Commission on April 10, 2006 and incorporated by reference thereto.

Goodwin Procter LLP Counsellors at Law Exchange Place Boston, MA 02109 T: 617.570.1000 F: 617.523.1231 goodwinprocter.com

June 28, 2006

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 2,067,060 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 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 opinions 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.

For purposes of the opinion expressed below, and without limiting any other exceptions or qualifications set forth herein, we have assumed that after the issuance of Shares under the Registration Statement, the total number of issued shares of the Company's Common Stock, together with the total number of shares of the Company's Common Stock reserved for issuance upon the exercise, exchange or conversion, as the case may be, of any exercisable, exchangeable or convertible security, as the case may be, then outstanding, will not exceed the total number of authorized shares of Common Stock under the Company's certificate of incorporation, as amended and then in effect.

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).

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.

Harvard Bioscience, Inc. June 28, 2006 Page 2

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 and Stockholders Harvard Bioscience, Inc. and subsidiaries:

We consent to the use of our report dated March 16, 2006, with respect to the consolidated balance sheets of Harvard Bioscience, Inc. as of December 31, 2005 and 2004, 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, 2005, and our report dated March 16, 2006 with respect to management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2005 and the effectiveness of internal control over financial reporting as of December 31, 2005, which reports appear in the December 31, 2005 annual report on Form 10-K of Harvard Bioscience, Inc, incorporated by reference herein.

KPMG LLP

Boston, Massachusetts June 26, 2006