

SECURITIES AND EXCHANGE COMMISSION  
 WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 TO  
 FORM S-8  
 REGISTRATION STATEMENT  
 UNDER  
 THE SECURITIES ACT OF 1933

HARVARD BIOSCIENCE, INC.  
 (EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE 04-3306140  
 (STATE OF INCORPORATION) (I.R.S. EMPLOYER IDENTIFICATION NO.)

84 OCTOBER HILL ROAD  
 HOLLISTON, MASSACHUSETTS 01746-1371  
 (508) 893-8066  
 (ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA  
 CODE, OF REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

HARVARD BIOSCIENCE, INC. 2000 STOCK OPTION AND INCENTIVE PLAN  
 HARVARD APPARATUS, INC. 1996 STOCK OPTION AND GRANT PLAN  
 HARVARD BIOSCIENCE, INC. EMPLOYEE STOCK PURCHASE PLAN  
 (FULL TITLE OF THE PLAN)

CHANE GRAZIANO  
 CHIEF EXECUTIVE OFFICER  
 HARVARD BIOSCIENCE, INC.  
 84 OCTOBER HILL ROAD  
 HOLLISTON, MASSACHUSETTS 01746-1371  
 (508) 893-8066  
 (NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER,  
 INCLUDING AREA CODE, OF AGENT FOR SERVICE)

With copy to:  
 H. DAVID HENKEN, P.C.  
 GOODWIN PROCTER LLP  
 EXCHANGE PLACE  
 BOSTON, MASSACHUSETTS 02109-2881  
 (617) 570-1000

CALCULATION OF REGISTRATION FEE

Title of Securities Being Registered	Amounts to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$ .01 per share	4,849,096 shares	\$9.815	\$47,593,877	
	263,202 shares	\$8.225	\$2,164,837	\$12,441 (3)
Plan Interests (4)	N/A (4)	N/A (4)	N/A (4)	N/A (4)

(1) This Registration Statement also relates to such indeterminate number of additional shares of Common Stock, par value \$.01 per share, of Harvard Bioscience, Inc. (the "Common Stock") as may be required pursuant to the Harvard Bioscience, Inc. 2000 Stock Option and Incentive Plan, the Harvard Apparatus, Inc. 1996 Stock Option and Grant Plan and the Harvard Bioscience, Inc. Employee Stock Purchase Plan (the "Plans") in the event of a stock dividend, reverse stock split, split-up, recapitalization, forfeiture of stock under the Plans or other similar event.

(2) This estimate is made pursuant to Rule 457(c) and (h) under the Securities Act of 1933 (the "Securities Act") solely for the purposes of determining the amount of the registration fee. The registration fee for 4,849,096 shares previously registered in connection with the initial filing of this Registration Statement was calculated based upon the average of the high and low sale price for a share of Common Stock, as reported on the Nasdaq National Market System as of a date within five business days prior to such initial filing. The registration fee for 263,202 additional shares being registered in connection with this Post-Effective Amendment No. 1 to the Registration Statement is calculated based upon the average of the high and low sale price for a share of Common Stock, as reported on the Nasdaq

National Market System as of a date within five business days prior to filing this Post-Effective Amendment No. 1 to the Registration Statement.

- (3) Includes \$11,899 paid prior to the initial filing of this Registration Statement and \$542 being paid in connection with this Post-Effective Amendment No. 1 to the Registration Statement.
- (4) In addition, pursuant to Rule 416(c) under the Securities Act, this Registration Statement also covers an indeterminate amount of interests to be offered or sold pursuant to the Harvard Bioscience, Inc. Employee Stock Purchase Plan. In accordance with Rule 457(h)(2), no separate fee calculation is made for plan interests.

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THIS POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-8 IS BEING FILED IN CONNECTION WITH THE REGISTRATION OF 263,202 ADDITIONAL SHARES UNDER THE HARVARD BIOSCIENCE, INC. 2000 STOCK OPTION AND INCENTIVE PLAN AND AMENDS AND RESTATES ELEMENTS OF THE FEE CALCULATION TABLE AND ASSOCIATED FOOTNOTES, ITEM 3, ITEM 6, ITEM 8, AND THE EXHIBIT INDEX OF THE REGISTRATION STATEMENT ON FORM S-8 OF THE REGISTRANT PERTAINING TO THE HARVARD BIOSCIENCE, INC. 2000 STOCK OPTION AND INCENTIVE PLAN, THE HARVARD APPARATUS, INC. 1996 STOCK OPTION AND GRANT PLAN AND THE HARVARD BIOSCIENCE, INC. EMPLOYEE STOCK PURCHASE PLAN FILED ON JANUARY 17, 2001 UNDER FILE NUMBER 333-53848 ("ORIGINAL REGISTRATION STATEMENT").

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. PLAN INFORMATION.\*

Item 2. REGISTRANT INFORMATION AND EMPLOYEE PLAN ANNUAL INFORMATION.\*

\* Information required by Part I to be contained in Section 10(a) Prospectuses is omitted from this Registration Statement in accordance with Rule 428 under the Securities Act of 1933 (the "Securities Act") and the Introductory Note to Part I of Form S-8.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

Harvard Bioscience, Inc. (the "Registrant") hereby incorporates by reference the following documents which have previously been filed with the Securities and Exchange Commission (the "Commission"):

- (a) the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2000 as filed with the Commission on April 2, 2001 pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act");
- (b) all other reports filed with the Commission by the Registrant pursuant to Section 13(a) or 15(d) of the Exchange Act since December 31, 2000; and
- (c) the description of the Registrant's Common Stock contained in the Registration Statement on Form 8-A, dated November 8, 2000, as filed with the Commission on November 9, 2000 pursuant to Section 12(g) of the Exchange Act and any amendments or reports filed for the purpose of updating such description.

In addition, all documents subsequently filed with the Commission by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment hereto that indicates that all securities offered hereunder have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes hereof to the extent that a statement contained herein or in any subsequently filed document which also is incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. DESCRIPTION OF SECURITIES.

Not Applicable.

Item 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not Applicable.

Item 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

In accordance with Section 145 of the General Corporation Law of the State of Delaware (the "DGCL"), Article VII of the Registrant's Second Amended and Restated Certificate of Incorporation (the "Certificate") provides that no director of the Registrant shall be personally liable to the Registrant or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Registrant or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) in respect of certain unlawful dividend payments or stock redemptions or repurchases, or (iv) for any transaction from which the director derived an improper personal benefit. In addition, the Certificate provides that if the DGCL is amended to authorize the further elimination or limitation of the personal liability of directors, then the liability of a director of the Registrant shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Article V of the Registrant's Amended and Restated By-laws (the "By-laws") provides for indemnification by the Registrant of its directors, officers and certain non-officer employees under certain circumstances against expenses (including attorneys fees, judgments, fines and amounts paid in settlement) reasonably incurred in connection with the defense or settlement of any threatened, pending or completed legal proceeding in which any such person is involved by reason of the fact that such person is or was a director, an officer or an employee of the Registrant if such person acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the Registrant, and, with respect to criminal actions or proceedings, that such person had no reasonable cause to believe his or her conduct was unlawful. Registrant has also obtained directors' and officers' insurance against certain liabilities.

The Registrant has entered into indemnification agreements with each of its directors reflecting the foregoing provisions of its By-laws and requiring the advancement of expenses in proceedings, if such person had no reasonable cause to believe his or her conduct was unlawful.

Under Section 8 of the Underwriting Agreement filed as Exhibit 1.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-45996), the Underwriters (as defined therein) have agreed to indemnify, under certain conditions, the Registrant, its directors, certain officers and persons who control the Registrant within the meaning of the Securities Act against certain liabilities.

Item 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

Item 8. EXHIBITS.

The following is a complete list of exhibits filed or incorporated by reference as part of this Registration Statement.

EXHIBIT

- +3.2 Second Amended and Restated Certificate of Incorporation of Registrant.
- +3.3 Amended and Restated By-laws of Registrant.
- \*\*5.1 Opinion of Goodwin Procter LLP as to the legality of the securities being registered.
- \*10.1 Harvard Apparatus, Inc. 1996 Stock Option and Grant Plan.
- \*10.2 Harvard Bioscience, Inc. 2000 Stock Option and Incentive Plan.
- \*10.3 Harvard Bioscience, Inc. Employee Stock Purchase Plan.
- \*\*23.1 Consent of Counsel (included in Exhibit 5.1 hereto).
- 23.2 Consent of KPMG LLP.
- \*\*24.1 Powers of Attorney.

+ Incorporated by reference to the relevant exhibit to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2000, as filed with the Commission.

\* Incorporated by reference to the relevant exhibit to the Registrant's Registration Statement on Form S-1 (File No. 333-45996), as amended, as filed with the Commission.

\*\* Previously filed.

Item 9. UNDERTAKINGS.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

PROVIDED, HOWEVER, that paragraphs (a)(1)(i) and (a)(1)(ii) herein do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the undersigned registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial BONA FIDE offering thereof; and

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial BONA FIDE offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, Harvard Bioscience, Inc. 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 June 15, 2001.

HARVARD BIOSCIENCE, INC.

By: /s/ James Warren  
-----  
James Warren  
CHIEF FINANCIAL OFFICER

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 dates indicated.

SIGNATURE -----	TITLE -----	DATE ----
<p>*** ----- Chane Graziano</p>	<p>Chief Executive Officer and Director (Principal Executive Officer)</p>	<p>June 15, 2001</p>
<p>/s/ James Warren ----- James Warren</p>	<p>Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)</p>	<p>June 15, 2001</p>
<p>*** ----- David Green</p>	<p>President and Director</p>	<p>June 15, 2001</p>
<p>*** ----- Christopher W. Dick</p>	<p>Director</p>	<p>June 15, 2001</p>
<p>*** ----- Richard C. Klaffky, Jr.</p>	<p>Director</p>	<p>June 15, 2001</p>
<p>*** ----- Robert Dishman</p>	<p>Director</p>	<p>June 15, 2001</p>
<p>*** ----- John F. Kennedy</p>	<p>Director</p>	<p>June 15, 2001</p>
<p>*** ----- Earl R. Lewis</p>	<p>Director</p>	<p>June 15, 2001</p>

\*\*\*By: /s/ James Warren  
-----  
James Warren  
ATTORNEY-IN-FACT

THE PLANS. Pursuant to the requirements of the Securities Act of 1933, the trustees (or other persons who will administer the Plans) have duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Holliston, Massachusetts, on June 15, 2001.

HARVARD BIOSCIENCE, INC.,  
as administrator of the Harvard Bioscience, Inc.  
2000 Stock Option and Incentive Plan

By: /s/ James Warren  
-----  
James Warren  
Chief Financial Officer

HARVARD BIOSCIENCE, INC.,  
as administrator of the Harvard Apparatus, Inc.  
1996 Stock Option and Grant Plan

By: /s/ James Warren  
-----  
James Warren  
Chief Financial Officer

HARVARD BIOSCIENCE, INC.,  
as administrator of the Harvard Bioscience, Inc.  
Employee Stock Purchase Plan

By: /s/ James Warren  
-----  
James Warren  
Chief Financial Officer



EXHIBIT INDEX

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\*\* Previously filed.

INDEPENDENT AUDITOR'S CONSENT

The Board of Directors  
Harvard Bioscience, Inc. and Subsidiaries:

We consent to the use of our reports incorporated herein by reference on Form  
S-8 of Harvard Bioscience, Inc.

/s/ KPMG LLP

Boston, Massachusetts  
June 15, 2001