

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)

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

84 October Hill Road
Holliston, Massachusetts
(Address of Principal Executive Offices)

01746
(Zip Code)

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

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

With copies to:

Chad J. Porter
Burns & Levinson LLP
125 Summer Street
Boston, Massachusetts 02110
(617) 345-3000

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 (Do not check if a smaller reporting company) Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act

Calculation of Registration Fee

Title of Securities to be Registered	Amount to be Registered(1)(2)	Proposed Maximum Offering Price Per Share(3)	Proposed Maximum Aggregate Offering Price(3)	Amount of Registration Fee
Common Stock, par value \$0.01 per share	3,400,000 shares	\$4.30	\$14,620,000	\$1,821

- (1) This Registration Statement relates to 3,400,000 shares of Common Stock, par value \$0.01 per share, of Harvard Bioscience, Inc. (“Common Stock”) available for issuance under the Harvard Bioscience, Inc. Third 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.
- (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 and other equity plans of the Company, as amended by Post-Effective Amendment No.1 to Form S-8 filed on June 15, 2001 registering the issuance of an additional 263,202 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. On May 19, 2008, the Company filed a Registration Statement on Form S-8 (SEC File No. 333-151003) registering the issuance of 2,500,000 additional shares of Common Stock under the Plan. On May 25, 2011, the Company filed a Registration Statement on Form S-8 (SEC File No. 333-174476) registering the issuance of 3,700,000 additional shares of Common Stock under the Plan. On June 5, 2015, the Company filed a Registration Statement on Form S-8 (SEC File No. 333-204760) registering the issuance of 2,500,000 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 3,400,000 additional shares of Common Stock approved for issuance under the Plan at the Annual Meeting of Stockholders of the Company held on May 17, 2018.
- (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 29, 2018, as reported on the NASDAQ Global Market.

The Company previously filed (i) a Registration Statement on Form S-8 with the Securities and Exchange Commission, or SEC, on January 17, 2001 as amended on June 15, 2001 (SEC File No. 333-53848), (ii) a Registration Statement on Form S-8 with the SEC on April 15, 2003 (SEC File No. 333-104544), (iii) a Registration Statement on Form S-8 with the SEC on June 28, 2006 (SEC File No. 333-135418) (iv) a Registration Statement on Form S-8 with the SEC on May 19, 2008 (SEC File No. 333-151003), (v) a Registration Statement on Form S-8 with the SEC on May 25, 2011 (SEC File No. 333-174476) and (vi) a Registration Statement on Form S-8 with the SEC on June 5, 2015 (SEC File No. 333-204760) (each filed to register shares to be issued pursuant to the Plan (collectively, the “Original Filings”). This Registration Statement registers additional shares of the Company’s Common Stock to be issued pursuant to the Plan. The contents of the Original Filings 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 3. Incorporation of Documents by Reference.

The Registrant is subject to the informational and reporting requirements of Sections 13(a), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and in accordance therewith files reports, proxy statements and other information with the Commission. The following documents, which are on file with the Commission, are incorporated in this registration statement by reference:

(a) The Registrant’s Annual Report on Form 10-K for the year ended December 31, 2017, filed with the Commission on March 16, 2018;

(b) All other reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Exchange Act, since the end of the fiscal year covered by the Registrant’s Annual Report on Form 10-K described in (a) above; and

(c) The description of the Registrant’s Common Stock contained in the Registrant’s registration statement on Form 8-A (File No. 000-31923) filed with the Commission on November 9, 2000 under the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All documents subsequently filed 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 which indicates that all securities offered hereby 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 part hereof from the date of the filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be 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 8. Exhibits

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 1st day of June, 2018.

HARVARD BIOSCIENCE, INC.

By: /s/ Jeffrey A. Duchemin
Jeffrey A. Duchemin, *Chief Executive Officer*

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints each of Jeffrey A. Duchemin and Robert E. Gagnon 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
<u>/s/ Jeffrey A. Duchemin</u> Jeffrey A. Duchemin	Director and Chief Executive Officer (Principal Executive Officer)	June 1, 2018
<u>/s/ Robert E. Gagnon</u> Robert E. Gagnon	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	June 1, 2018
<u>/s/ Katherine Eade</u> Katherine Eade	Director	June 1, 2018
<u>/s/ James Green</u> James Green	Director	June 1, 2018
<u>/s/ John F. Kennedy</u> John F. Kennedy	Director	June 1, 2018
<u>/s/ Thomas Loewald</u> Thomas Loewald	Director	June 1, 2018
<u>/s/ Bertrand Loy</u> Bertrand Loy	Director	June 1, 2018

EXHIBIT INDEX

Exhibit Number	Description
4.1(1)	Second Amended and Restated Certificate of Incorporation of Harvard Bioscience, Inc.
4.2(1)	Amended and Restated Bylaws of Harvard Bioscience, Inc.
4.3(2)	Amendment No. 1 to Amended and Restated Bylaws of Harvard Bioscience, Inc.
4.4(1)	Specimen certificate for shares of Common Stock, \$0.01 par value, of Harvard Bioscience, Inc.
4.5(3)	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
4.6(4)	Harvard Bioscience, Inc. Third Amended and Restated 2000 Stock Option and Incentive Plan, as amended
*5.1	Legal opinion from Burns & Levinson LLP
*23.1	Consent of Grant Thornton LLP
*23.2	Consent of KPMG LLP
*23.3	Consent of RSM US LLP
23.4	Consent of Burns & Levinson 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/A (File No. 333-45996) (filed on November 9, 2000) 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 Registration Statement on Form S-1/A (File No. 333-45996) (filed on October 25, 2000) and incorporated by reference thereto.
- (4) Previously filed as Appendix A to the Company's Definitive Schedule 14A (Proxy Statement) (filed on April 6, 2018) and incorporated by reference thereto.

June 1, 2018

Harvard Bioscience, Inc.
84 October Hill Road
Holliston, MA 01746-1371

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 3,400,000 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 Third Amended and Restated 2000 Stock Option and Incentive Plan, as amended (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,

BURNS & LEVINSON LLP

/s/ BURNS & LEVINSON LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated March 16, 2018 with respect to the consolidated financial statements and internal control over financial reporting of Harvard Bioscience, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2017, which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned reports in this Registration Statement.

/s/ GRANT THORNTON LLP

Boston, Massachusetts

June 1, 2018

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Harvard Bioscience, Inc.:

We consent to the use of our report dated March 16, 2017, with respect to the consolidated balance sheet of Harvard Bioscience, Inc. and subsidiaries as of December 31, 2016 and the related consolidated statements of operations, comprehensive (loss) income, stockholders' equity and cash flows for each of the years in the two-year period ended December 31, 2016, incorporated herein by reference.

/s/ KPMG LLP

Cambridge, Massachusetts
June 1, 2018

Consent of Independent Auditor

We consent to the incorporation by reference in this Registration Statement on Form S-8 of Harvard Bioscience, Inc. of our report dated October 4, 2017, except for the matters discussed in Notes 11 and 12 as to which the date is April 17, 2018, relating to the consolidated financial statements of Data Sciences International, Inc. and Subsidiaries, appearing in the Current Report on Form 8-K/A filed by Harvard Bioscience, Inc. on April 17, 2018.

/s/ RSM US LLP

Minneapolis, Minnesota
June 1, 2018