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

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934*

Harvard Bioscience, Inc.

(Name of Issuer)

Common Stock, \$0.01 par value

(Title of Class of Securities)

416906105

(CUSIP Number)

December 31, 2018

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAME OF REPORTING PERSONS First Light Focus Fund, LP I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) 47-4771203
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5 SOLE VOTING POWER 0
	6 SHARED VOTING POWER 4,212,614
	7 SOLE DISPOSITIVE POWER 0
	8 SHARED DISPOSITIVE POWER 4,212,614
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,212,614
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 9 EXCLUDES CERTAIN SHARES <input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 11.30%
12	TYPE OF REPORTING PERSON PN

1	NAME OF REPORTING PERSONS First Light Focus Fund GP, LLC I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) 35-2538554
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5 SOLE VOTING POWER 0
	6 SHARED VOTING POWER 4,212,614
	7 SOLE DISPOSITIVE POWER 0
	8 SHARED DISPOSITIVE POWER 4,212,614
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,212,614
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 9 EXCLUDES CERTAIN SHARES <input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 11.30%
12	TYPE OF REPORTING PERSON HC

1	NAME OF REPORTING PERSONS First Light Asset Management, LLC I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) 46-3521994
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5 SOLE VOTING POWER 0
	6 SHARED VOTING POWER 7,009,586
	7 SOLE DISPOSITIVE POWER 0
	8 SHARED DISPOSITIVE POWER 7,009,586
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 7,009,586
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 9 EXCLUDES CERTAIN SHARES <input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 18.80%
12	TYPE OF REPORTING PERSON IA

1	NAME OF REPORTING PERSONS Mathew P. Arens I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	CITIZENSHIP OR PLACE OF ORGANIZATION United State of America
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5 SOLE VOTING POWER 34,350
	6 SHARED VOTING POWER 7,020,421
	7 SOLE DISPOSITIVE POWER 34,350
	8 SHARED DISPOSITIVE POWER 7,020,421
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 7,054,771
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 9 EXCLUDES CERTAIN SHARES <input type="checkbox"/>
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 18.92%
12	TYPE OF REPORTING PERSON HC, IN

Item 1(a). Name of Issuer:
Harvard Bioscience, Inc.

Item 1(b). Address of Issuer's Principal Executive Offices:
84 October Hill Road, Holliston, MA 01746

Item 2(a). Name of Person Filing:
This Schedule 13G/A is being jointly filed by the following:

First Light Focus Fund, LP (the "Fund")
First Light Focus Fund GP, LLC (the "General Partner")
First Light Asset Management, LLC (the "Manager")
Mathew P. Arens ("Mr. Arens")

The Manager may be deemed to be the beneficial owner of 7,009,586 of the Issuer's shares of common stock (the "Shares") by virtue of the fact that it acts as an investment adviser to certain persons holding separately managed accounts with the Manager, each of whom has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, those shares. Mr. Arens may also be deemed to be the beneficial owner of these shares because he controls the Manager in his position as managing member and majority owner of the Manager. The Manager and Mr. Arens are filing this Schedule 13G/A with respect to these Shares pursuant to Rule 13d-1(b) under the Act.

The Fund is the direct holder of 4,212,614 of the Shares. The General Partner may be deemed to be a beneficial owner of these Shares because it is the sole general partner of the Fund. The Manager may be deemed to be a beneficial owner of these Shares because it acts as investment adviser to the Fund. Mr. Arens may also be deemed to be the beneficial owner of these Shares because he controls the Manager in his position as the managing member and majority owner of the Manager. Mr. Arens also directly holds 34,350 Shares in an individual capacity with sole control and 10,835 Shares held in a joint spousal account over which he shares control. The Fund, the General Partner, the Manager and Mr. Arens are filing this Schedule 13G/A with respect to these Shares pursuant to Rule 13d-1(c) under the Act.

Each of the Fund, the General Partner, the Manager and Mr. Arens may be deemed to be the beneficial owner of the total amount of Shares set forth across from its or his respective name in Item 4 below. The filing of this Schedule 13G shall not be construed as an admission that the reporting persons or any of their affiliates are the beneficial owner of any securities covered by this Schedule 13G for any other purposes other than Section 13(d) of the Securities Exchange Act of 1934.

Item 2(b). Address of Principal Business Office or, if None, Residence:
Each of the reporting persons identified in Item 2(a) has its principal business office at:

3300 Edinborough Way, Suite 201, Edina, MN 55435

Item 2(c). Citizenship:
First Light Focus Fund, LP – Delaware limited partnership
First Light Focus Fund GP, LLC – Delaware limited liability company
First Light Asset Management, LLC – Delaware limited liability company
Mathew P. Arens – United States citizen

Item 2(d). Title of Class of Securities:
Common Stock, \$0.01 par value

Item 2(e). CUSIP Number:
416906105

Item 3. If This Statement is Filed Pursuant to §§240.13d-1(b), or 240.13d-2(b) or (c), Check Whether the Person Filing is a:

- (a) Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78o).
- (b) Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) Insurance company as defined in Section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) Investment company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
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- (f) An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with §240.13d-1(b)(ii)(G);
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act (15 U.S.C. 80a-3);
- (j) Group, in accordance with §240.13d-1(b)(1)(ii)(J).

Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned:
 - First Light Focus Fund, LP – 4,212,614
 - First Light Focus Fund GP, LLC – 4,212,614
 - First Light Asset Management, LLC – 7,009,586
 - Mathew P. Arens – 7,054,771
 - (b) Percent of class:
 - First Light Focus Fund, LP – 11.30%
 - First Light Focus Fund GP, LLC – 11.30%
 - First Light Asset Management, LLC – 18.80%
 - Mathew P. Arens – 18.92%
 - (c) Number of shares as to which such person has:
 - (i) Sole power to vote or to direct the vote
 - First Light Focus Fund, LP – 0
 - First Light Focus Fund GP, LLC – 0
 - First Light Asset Management, LLC – 0
 - Mathew P. Arens – 34,350
 - (ii) Shared power to vote or to direct the vote
 - First Light Focus Fund, LP – 4,212,614
 - First Light Focus Fund GP, LLC – 4,212,614
 - First Light Asset Management, LLC – 7,009,586
 - Mathew P. Arens – 7,020,421
 - (iii) Sole power to dispose or to direct the disposition of
 - First Light Focus Fund, LP – 0
 - First Light Focus Fund GP, LLC – 0
 - First Light Asset Management, LLC – 0
 - Mathew P. Arens – 34,350
 - (iv) Shared power to dispose or to direct the disposition of
 - First Light Focus Fund, LP – 4,212,614
 - First Light Focus Fund GP, LLC – 4,212,614
 - First Light Asset Management, LLC – 7,009,586
 - Mathew P. Arens – 7,020,421
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Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not applicable

Item 8. Identification and Classification of Members of the Group.

Not applicable

Item 9. Notice of Dissolution of Group.

Not applicable

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

After reasonable 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.

FIRST LIGHT FOCUS FUND, LP

Date: February 14, 2019

By: /s/ Jin K. Lien

Name: Jin K. Lien

Title: Chief Compliance Officer

FIRST LIGHT FOCUS FUND GP, LLC

Date: February 14, 2019

By: /s/ Jin K. Lien

Name: Jin K. Lien

Title: Chief Compliance Officer

FIRST LIGHT ASSET MANAGEMENT, LLC

Date: February 14, 2019

By: /s/ Jin K. Lien

Name: Jin K. Lien

Title: Chief Compliance Officer

Date: February 14, 2019

Signature: /s/ Mathew P. Arens

Name: Mathew P. Arens

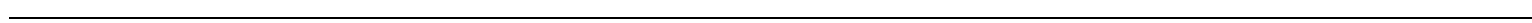


Exhibit A
JOINT FILING AGREEMENT

The Undersigned agree that the statement on Schedule 13G/A with respect to the common stock of Harvard Bioscience, Inc., dated as of February 14, 2019, is, and any amendment thereto signed by each of the undersigned shall be, filed on behalf of each of them pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended.

FIRST LIGHT FOCUS FUND, LP

By: /s/ Jin K. Lien
Name: Jin K. Lien
Title: Chief Compliance Officer

FIRST LIGHT FOCUS FUND GP, LLC

By: /s/ Jin K. Lien
Name: Jin K. Lien
Title: Chief Compliance Officer

FIRST LIGHT ASSET MANAGEMENT, LLC

By: /s/ Jin K. Lien
Name: Jin K. Lien
Title: Chief Compliance Officer

Signature: /s/ Mathew P. Arens
Name: Mathew P. Arens
