UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No.)*

AVROBIO, INC.

(Name of Issuer)

Common Stock, \$0.0001 par value per share (Title of Class of Securities)

05455M100 (CUSIP Number)

Atlas Venture
Attention: Ommer Chohan, Chief Financial Officer
400 Technology Square, 10th Floor
Cambridge, MA 02139 USA
(857) 201-2700
(Name, Address and Telephone Number of Person Authorized to
Receive Notices and Communications)

J<u>uly 19, 2019</u>

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. \boxtimes

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* 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 disclosures provided in a prior cover page.

The information required on 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).

CUSIP 05455M	100			Page 2 of 13			
1	NAMES OF REPORTING PERSONS:						
	ATLAS	S VENTURE F	UND X, L.P.				
2		HECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS): a) \square (b) \boxtimes					
3	SEC U	SE ONLY:					
4	SOURCE OF FUNDS (SEE INSTRUCTIONS):						
	WC	WC					
5	CHEC	K IF DISCLOS	URE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e):			
6	CITIZENSHIP OR PLACE OF ORGANIZATION:						
	Delaware						
		7	SOLE VOTING POWER:				
			0				
NUMBEI	- R OF	8	SHARED VOTING POWER:				
SHARI BENEFICI	ES ALLY		4,756,478 ¹				
OWNED EACI		9	SOLE DISPOSITIVE POWER:				
REPORT PERSON V			0				
	-	10	SHARED DISPOSITIVE POWER:				
			4,756,478 ¹				
11	AGGR	EGATE AMO	INT BENEFICIALLY OWNED BY EACH REPORTING PERSON:				
	4,756,4	178 ¹					
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):						
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11):						
	15.1% ²	2					
14	TYPE	OF REPORTIN	G PERSON (SEE INSTRUCTIONS):				
	PN						

As described in Item 5 below, Atlas Venture Fund X, L.P., a Delaware limited partnership ("Atlas X"), Atlas Venture Associates X, L.P., a Delaware limited partnership ("AVA X LP") and Atlas Venture Associates X, LLC, a Delaware limited liability company ("AVA X LLC" and together with Atlas X and AVA X LP, the "Fund X Reporting Persons") beneficially own 4,756,478 shares of the Issuer's Common Stock. All of these shares are held by Atlas X. AVA X LP is the general partner of Atlas X and AVA X LLC is the general partner of AVA X LP and AVA X LLC has voting and dispositive power over the shares held by Atlas X. As such, each of the Fund X Reporting Persons share voting and dispositive power with respect to the shares held by Atlas X.

This percentage is calculated based upon 31,551,762 outstanding shares of Common Stock of the Issuer as of July 19, 2019, as reported in the Issuer's prospectus supplement filed with the Securities and Exchange Commission on July 17, 2019.

CUSIP 05455N	/ 1100			Page 3 of 13		
1	NAMES OF REPORTING PERSONS:					
	ATLAS	S VENTURE A	ASSOCIATES X, L.P.			
2	CHEC (a) □ (OPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):			
3	SEC U	SEC USE ONLY:				
4	SOURCE OF FUNDS (SEE INSTRUCTIONS):					
	AF					
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e):					
6	CITIZ	ENSHIP OR P	LACE OF ORGANIZATION:			
	Delaw	are				
		7	SOLE VOTING POWER:			
			0			
NUMBE	R OF	8	SHARED VOTING POWER:			
SHAR BENEFIC	IALLY		4,756,478 ¹			
OWNEI EAC	Н	9	SOLE DISPOSITIVE POWER:			
REPOR' PERSON			0			
	-	10	SHARED DISPOSITIVE POWER:			
			4,756,478 ¹			
11	AGGR	EGATE AMO	UNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:			
	4,756,4	478 ¹				
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):					
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11):					
	$15.1\%^2$					
14	TYPE	OF REPORTIN	NG PERSON (SEE INSTRUCTIONS):			
	PN					

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CUSIP 05455N	1100			Page 4 of 13		
1	NAMES OF REPORTING PERSONS:					
	ATLAS	S VENTURE A	ASSOCIATES X, LLC			
2	CHEC (a) □ (OPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):			
3	SEC USE ONLY:					
4	SOURCE OF FUNDS (SEE INSTRUCTIONS):					
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5	CHEC	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e):				
6	CITIZI	ENSHIP OR P	LACE OF ORGANIZATION:			
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		7	SOLE VOTING POWER:			
			0			
NUMBE	R OF	8	SHARED VOTING POWER:			
SHAR BENEFIC			4,756,478 ¹			
OWNEI EAC		9	SOLE DISPOSITIVE POWER:			
REPORT PERSON			0			
	-	10	SHARED DISPOSITIVE POWER:			
			4,756,478 ¹			
11	AGGR	EGATE AMO	UNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:			
	4,756,4	178 ¹				
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):					
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11):					
	$15.1\%^2$					
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):					
	00					

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CUSIP 054551	M100			Page 5 of 13		
1	NAMES OF REPORTING PERSONS:					
	ATLAS VENTURE OPPORTUNITY FUND I, L.P.					
2	CHEC (a) □		OPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):			
3	SEC USE ONLY:					
4	SOURCE OF FUNDS (SEE INSTRUCTIONS):					
	WC					
5	CHEC	K IF DISCLO	SURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e):			
6	CITIZ	ENSHIP OR P	PLACE OF ORGANIZATION:			
	Delaw	are				
		7	SOLE VOTING POWER:			
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NUMBI	ER OF	8	SHARED VOTING POWER:			
SHAI BENEFIC			810,811 ¹			
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REPOR PERSON			0			
	i	10	SHARED DISPOSITIVE POWER:			
			810,811 ¹			
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:					
	810,81	.11				
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):					
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11):					
	$2.6\%^{2}$					
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):					
	PN					

As described in Item 5 below, Atlas Venture Opportunity Fund I, L.P., a Delaware limited partnership ("AVOF"), Atlas Venture Associates Opportunity I, L.P., a Delaware limited partnership ("AVAO LP") and Atlas Venture Associates Opportunity I, L.C., a Delaware limited liability company ("AVAO LLC" and together with AVOF and AVAO LP, the "Opportunity Fund Reporting Persons") beneficially own 810,811 shares of the Issuer's Common St2.6%ock. All of these shares are held by AVOF. AVAO LP is the general partner of AVAO LP Each of AVAO LP and AVAO LLC has voting and dispositive power over the shares held by AVOF. As such, each of the Opportunity Fund Reporting Persons share voting and dispositive power with respect to the shares held by AVOF.

This percentage is calculated based upon 31,551,762 outstanding shares of Common Stock of the Issuer as of July 19, 2019, as reported in the Issuer's prospectus supplement filed with the Securities and Exchange Commission on July 17, 2019.

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CUSIP 05455N				Page 6 of 13			
1			TING PERSONS:				
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2	CHEC (a) □		OPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):				
3	SECC	JSE ONLY:					
4	SOURCE OF FUNDS (SEE INSTRUCTIONS):						
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	Delaw	are					
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NUMBE	R OF	8	SHARED VOTING POWER:				
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			810,811 ¹				
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:						
	810,81	.11					
12	CHEC	K IF THE AG	GREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):			
13	PERC	ENT OF CLAS	SS REPRESENTED BY AMOUNT IN ROW (11):				
	$2.6\%^2$						
1.4			NC DEDCON (CEE INCEDITIONS).				
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):						
	PN						

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CUSIP 05455N	M100			Page 7 of 13		
1	NAMES OF REPORTING PERSONS:					
	ATLAS VENTURE ASSOCIATES OPPORTUNITY I, LLC					
2	CHECK (a) □ (b)	ECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS): \square (b) \boxtimes				
3	SEC USE ONLY:					
4	SOURCE OF FUNDS (SEE INSTRUCTIONS):					
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5	CHECK	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e):				
6	CITIZENSHIP OR PLACE OF ORGANIZATION:					
	Delaware	1				
		7	SOLE VOTING POWER:			
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NUMBE	ER OF	8	SHARED VOTING POWER:			
SHAF BENEFIC	IALLY		810,811 ¹			
OWNE EAC	H	9	SOLE DISPOSITIVE POWER:			
REPOR PERSON			0			
		10	SHARED DISPOSITIVE POWER:			
			810,811 ¹			
11	AGGRE	GATE AMC	DUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:			
	810,811 ¹					
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):					
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11):					
	2.6% ²					
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):					
	PN					

As described in Item 5 below, Atlas Venture Opportunity Fund I, L.P., a Delaware limited partnership ("AVOF"), Atlas Venture Associates Opportunity I, L.P., a Delaware limited partnership ("AVAO LP") and Atlas Venture Associates Opportunity I, LLC, a Delaware limited liability company ("AVAO LLC" and together with AVOF and AVAO LP, the "Opportunity Fund Reporting Persons") beneficially own 810,811 shares of the Issuer's Common Stock. All of these shares are held by AVOF. AVAO LP is the general partner of AVAO LP Each of AVAO LP and AVAO LLC has voting and dispositive power over the shares held by AVOF. As such, each of the Opportunity Fund Reporting Persons share voting and dispositive power with respect to the shares held by AVOF.

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INTRODUCTION

The following constitutes the Schedule 13D filed by the undersigned (the "Schedule 13D"). This Schedule 13D is being filed by Atlas Venture Fund X, L.P., Atlas Venture Associates X, L.P., Atlas Venture Associates X, L.P., Atlas Venture Associates Opportunity I, L.P. and Atlas Venture Associates Opportunity I, LLC, as described in Item 3 below. This Schedule 13D supersedes the Schedule 13G filed by the Reporting Persons (defined below) on February 13, 2019.

ITEM 1. SECURITY AND ISSUER

The class of equity securities to which this Schedule 13D relates is common stock, par value \$0.0001 per share (the "Common Stock") of AVROBIO, Inc., a Delaware corporation (the "Issuer" or "AVRO"). The principal executive offices of the Issuer are located at One Kendall Square, Building 300, Suite 201, Cambridge, Massachusetts 02139.

ITEM 2. IDENTITY AND BACKGROUND

- (a) This Schedule 13D is filed by (i) Atlas Venture Fund X, L.P., a Delaware limited partnership ("Atlas X"), (ii) Atlas Venture Associates X, L.P., a Delaware limited partnership ("AVA X LP") (iii) Atlas Venture Associates X, LLC, a Delaware limited liability company ("AVA X LLC" and together with Atlas X and AVA X LP, the "Fund X Reporting Persons"), (iv) Atlas Venture Opportunity Fund I, L.P., a Delaware limited partnership ("AVAO LP") and (vi) Atlas Venture Associates Opportunity I, LLC, a Delaware limited liability company ("AVAO LLC" and together with AVOF and AVAO LP, the "Opportunity Fund Reporting Persons").
- (b) The address of the principal place of business of each of the Reporting Persons is c/o 400 Technology Square, 10th Floor, Cambridge, Massachusetts 02139.
- (c) The principal business of each of the Reporting Persons is the venture capital investment business.
- (d) During the last five years, none of the Reporting Persons has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) Each of Atlas X, AVA X LP, AVOF and AVAO LP is a Delaware limited partnership. Each of AVA X LLC and AVAO LLC is a Delaware limited liability company.

ITEM 3. SOURCE AND AMOUNT OF FUNDS OR OTHER CONSIDERATION

As of the date hereof, the Reporting Persons may be deemed to beneficially own an aggregate of 5,567,289 shares of Common Stock, consisting of (i) 4,756,478 shares of Common Stock that were acquired by Atlas X prior to the Issuer's initial public offering (the "IPO") and (ii) 810,811 shares of Common Stock that were purchased by AVOF in the Issuer's follow-on public offering (the "Offering") at the public offering price of \$18.50 per share. The Offering closed on July 19, 2019.

The 4,756,478 shares of Common Stock acquired prior to the IPO were acquired at the closing of the IPO on June 25, 2018 upon the automatic conversion of 3,333,333 shares of Series Seed Preferred Stock, 12,580,199 shares of Series A Preferred Stock and 3,740,239 shares of Series B Preferred Stock into 806,711 shares of Common Stock, 3,044,579 shares of Common Stock and 905,188 shares of Common Stock, respectively. The Series Seed, Series A and Series B Preferred Stock were acquired for a purchase price of approximately \$1.5 million, \$10.0 million and \$8.0 million, respectively.

The 810,811 shares of Common Stock acquired in the Offering were purchased for an aggregate purchase price of approximately \$15 million.

The funds used by Atlas X and AVOF to acquire the securities described above were obtained from its general and limited partners.

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ITEM 4. PURPOSE OF TRANSACTION

Atlas X and AVOF purchased the Common Stock for investment purposes. Except as set forth herein and except that the Reporting Persons or any of their affiliates may, from time to time or at any time, subject to market conditions and other factors, purchase additional Common Stock in the open market, in privately negotiated transactions or otherwise, or sell at any time all or a portion of the Common Stock now owned or hereafter acquired by them to one or more purchasers, as of the date of this Schedule 13D, none of the Reporting Persons has any present plans which relate to or would result in:

- (a) The acquisition by any person of additional securities of the Issuer, or the disposition of securities of the Issuer;
- (b) An extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries;
- (c) A sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries;
- (d) Any change in the present board of directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board;
- (e) Any material change in the present capitalization or dividend policy of the Issuer;
- (f) Any other material change in the Issuer's business or corporate structure including but not limited to, if the Issuer is a registered closed-end investment company, any plans or proposals to make any changes in its investment policy for which a vote is required by section 13 of the Investment Company Act of 1940;
- (g) Changes in the Issuer's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of the Issuer by any person;
- (h) Causing a class of securities of the Issuer to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association;
- (i) A class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act; or
- (j) Any action similar to any of those enumerated above.

Bruce Booth, D.Phil., a member of AVA X LLC and AVAO LLC, has served on the board of directors of the Issuer since February 2016. As a director of the Issuer, Dr. Booth may have influence over the corporate activities of the Issuer, including activities which may relate to the transactions described in clauses (a) through (j) of this Item 4.

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ITEM 5. INTEREST IN SECURITIES OF THE ISSUER

(a) (b) As of the date hereof, Atlas X is the record owner of 4,756,478 shares of Common Stock. AVA X LP is the general partner of Atlas X and AVA X LLC is the general partner of AVA X LP. Each of Atlas X, AVA X LP and AVA X LLC has shared voting and dispositive power over the shares held by Atlas X. As such, each of Atlas X, AVA X LP and AVA X LLC may be deemed to beneficially own the shares held by Atlas X.

As of the date hereof, AVOF is the record owner of 810,811 shares of Common Stock. AVAO LP is the general partner of AVOF and AVAO LLC is the general partner of AVAO LP. Each of AVOF, AVAO LP and AVAO LLC has shared voting and dispositive power over the shares held by AVOF. As such, each of AVOF, AVAO LP and AVAO LLC may be deemed to beneficially own the shares held by AVOF.

Each of the Fund X Reporting Persons and Opportunity Fund Reporting Persons may be deemed to beneficially own 15.1% and 2.6%, respectively, of the Issuer's outstanding Common Stock, which percentages are calculated based upon 31,551,762 outstanding shares of Common Stock, as reported in the Issuer's prospectus supplement filed with the Securities and Exchange Commission on July 17, 2019.

Collectively, the Reporting Persons beneficially own an aggregate of 5,567,289 shares of Common Stock, which represents 17.6% of the Issuer's outstanding Common Stock. The Fund X Reporting Persons and the Opportunity Fund Reporting Persons are under common control and as a result, the Reporting Persons may be deemed to be members of a group. However, the Reporting Persons disclaim such group membership, and this Schedule 13D shall not be deemed an admission that the Reporting Persons are members of a group for purposes of Section 13 or for any other purposes.

- (c) The information provided and incorporated by reference in Item 3 is hereby incorporated by reference. There were no other transactions in the Common Stock by the Reporting Persons in the 60 days prior to the date of the event which requires the filing of this Schedule 13D.
- (d) No other person is known by the Reporting Persons to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of Common Stock beneficially owned by the Reporting Persons.
- (e) Not applicable.

ITEM 6. CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS OR RELATIONSHIPS WITH RESPECT TO SECURITIES OF THE ISSUER

Investors' Rights Agreement

Atlas X and certain other stockholders of the Issuer entered into a Second Amended and Restated Investors' Rights Agreement dated January 19, 2018 (the "Investors' Rights Agreement"), with the Issuer. Under the Investors' Rights Agreement, holders of registrable shares can demand that the Issuer file a registration statement or request that their shares be included on a registration statement that the Issuer is otherwise filing, in either case, registering the resale of their shares of Common Stock.

Demand Registration Rights

Beginning 90 days after July 19, 2019, holders of registrable shares, are entitled to demand registration rights. Under the terms of the Investors' Rights Agreement, the Issuer will be required, upon the written request of holders of at least 50% of these securities that would result in an aggregate offering price of at least \$10.0 million, to file a registration statement and use commercially reasonable efforts to effect the registration of all or a portion of these shares for public resale. The Issuer is required to effect only two registrations pursuant to this provision of the Investors' Rights Agreement.

Short-Form Registration Rights

Pursuant to the Investors' Rights Agreement, if the Issuer is eligible to file a registration statement on Form S-3, upon the written request of holders of at least 25% of these securities at an aggregate offer price of at least \$3.0 million, the Issuer will be required to use commercially reasonable efforts to effect a registration of such shares. The Issuer is required to effect only two registrations in any twelve month period pursuant to this provision of the Investors' Rights Agreement. The right to have such shares registered on Form S-3 is further subject to other specified conditions and limitations.

Piggyback Registration Rights

Pursuant to the Investors' Rights Agreement, if the Issuer registers any of its securities either for its own account or for the account of other security holders, the holders of these shares are entitled to include their shares in the registration. Subject to certain exceptions contained in the Investors' Rights Agreement, the Issuer and the underwriters may limit the number of shares included in the underwritten offering to the number of shares which the Issuer and the underwriters determine in their sole discretion will not jeopardize the success of the offering.

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Expenses of Registration

All fees, costs and expenses of underwritten registrations under the Investors' Rights Agreement will be borne by the Issuer and all selling expenses, including underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

Expiration of Registration Rights

The demand registration rights and short form registration rights granted under the Investors' Rights Agreement will terminate on the earliest of (i) a deemed liquidation event, as defined in the Investors' Rights Agreement, (ii) the fifth anniversary of the completion of the IPO and (iii) at such time after this offering when the holders' shares may be sold without restriction pursuant to Rule 144 within a three month period.

The foregoing description of the terms of the Investors' Rights Agreement is not complete and is qualified in its entirety by reference to the text of the Investors' Rights Agreement, which is referenced as Exhibit A, and incorporated herein by reference.

Lock-Up Agreements

In connection with the Offering, Atlas X, along with all of the Issuer's directors (including Dr. Booth), executive officers and certain other stockholders entered into a lock-up agreement, pursuant to which they agreed, subject to certain exceptions, not to sell, transfer or otherwise convey any of the Issuer's securities held by them or request or demand that the Issuer file a registration statement related to its Common Stock for a period of 90 days after July 19, 2019.

The lead underwriters for the Offering, Morgan Stanley & Co. LLC and Cowen and Company, LLC, may, in their discretion and at any time or from time to time before the termination of the lock-up period, without public notice, release all or any portion of the securities subject to lock-up agreements.

Other than as described in this Schedule 13D, to the knowledge of the Reporting Persons, there are no other contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer.

The foregoing description of the terms of the lock-up agreement is not complete and is qualified in its entirety by reference to the text of the form of lock-up agreement, which is referenced as Exhibit B, and incorporated herein by reference.

ITEM 7. MATERIAL TO BE FILED AS EXHIBITS

- A. AVROBIO, Inc. Second Amended and Restated Investors' Rights Agreement, dated January 9, 2018 (Incorporated by reference to Exhibit 4.2 to the Issuer's Registration Statement on Form S-1 (SEC File No. 333-225213), filed with the Securities and Exchange Commission on May 25, 2018).
- B. Form of Lock-Up Agreement (Incorporated by reference to Exhibit A of Exhibit 1.1 to the Issuer's Current Report on Form 8-K (SEC File No. 001-38537), filed with the Securities and Exchange Commission on July 17, 2019).
- C. Agreement regarding filing of joint Schedule 13D.

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SIGNATURES

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.

Dated: July 30, 2019

ATLAS VENTURE FUND X, L.P.

By: Atlas Venture Associates X, L.P., its general partner By: Atlas Venture Associates X, LLC, its general partner

By: /s/ Ommer Chohan

Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE ASSOCIATES X, L.P.

By: Atlas Venture Associates X, LLC, its general partner

By: /s/ Ommer Chohan Name: Ommer Chohan

Title: Chief Financial Officer

ATLAS VENTURE ASSOCIATES X, LLC

By: /s/ Ommer Chohan Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE OPPORTUNITY FUND I, L.P.

By: Atlas Venture Associates Opportunity I, L.P., its general partner By: Atlas Venture Associates Opportunity I, LLC, its general partner

By: /s/ Ommer Chohan

Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE ASSOCIATES OPPORTUNITY I, L.P.

By: Atlas Venture Associates Opportunity I, LLC, its general partner

By: /s/ Ommer Chohan Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE ASSOCIATES OPPORTUNITY I, LLC

By: /s/ Ommer Chohan Name: Ommer Chohan Title: Chief Financial Officer

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EXHIBIT D

JOINT FILING AGREEMENT

Pursuant to Rule 13d-1(k)(1) promulgated pursuant to the Securities Exchange Act of 1934, as amended, the undersigned agree that the attached Schedule 13D is being filed on behalf of each of the undersigned.

Dated: July 30, 2019

ATLAS VENTURE FUND X, L.P.

By: Atlas Venture Associates X, L.P., its general partner By: Atlas Venture Associates X, LLC, its general partner

By: /s/ Ommer Chohan

Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE ASSOCIATES X, L.P.

By: Atlas Venture Associates X, LLC, its general partner

By: /s/ Ommer Chohan Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE ASSOCIATES X, LLC

By: /s/ Ommer Chohan Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE OPPORTUNITY FUND I, L.P.

By: Atlas Venture Associates Opportunity I, L.P., its general partner By: Atlas Venture Associates Opportunity I, LLC, its general partner

By: /s/ Ommer Chohan

Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE ASSOCIATES OPPORTUNITY I, L.P.

By: Atlas Venture Associates Opportunity I, LLC, its general partner

By: /s/ Ommer Chohan Name: Ommer Chohan Title: Chief Financial Officer

ATLAS VENTURE ASSOCIATES OPPORTUNITY I, LLC

By: /s/ Ommer Chohan Name: Ommer Chohan Title: Chief Financial Officer