UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934 (Amendment No. 2)*

GENERATION BIO CO.

(Name of Issuer)

COMMON STOCK, \$0.0001 PAR VALUE

(Title of Class of Securities)

37148K100 (CUSIP Number)

. . .

DECEMBER 31, 2023 (Date of Event Which Requires Filing of This Statement)

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

 $\square \qquad \text{Rule 13d-1(b)}$

 $\square \qquad \text{Rule 13d-1(c)}$

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 Atlas Ventur		
2.	Check the Appropr (a) □ (b) ⊠	riate Box	if a Member of a Group (See Instructions)
3.	SEC USE ONLY		
4. Citizenship or Place of Organization Delaware		anization	
		5.	Sole Voting Power 0
	Number of Shares Beneficially	6.	Shared Voting Power 7,111,939 ⁽¹⁾
	Owned by Each Reporting	7.	Sole Dispositive Power 0
	Person With:	8.	Shared Dispositive Power 7,111,939 ⁽¹⁾
9.	Aggregate Amoun 7,111,939 ⁽¹⁾	t Benefic	ially Owned by Each Reporting Person
10.	Check if the Aggre	egate Am	ount in Row (9) Excludes Certain Shares (See Instructions)
11.	Percent of Class R $_{10.8\%}(2)$	epresente	d by Amount in Row (9)
12.	Type of Reporting PN	Person (S	See Instructions)

⁽¹⁾ As described in Item 4 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 7,111,939 shares of the Issuer's Common Stock. All of these shares are directly 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. Each 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.

1.	Name of Reporting Atlas Ventur		
2.	Check the Appropr (a) □ (b) ⊠	riate Box	if a Member of a Group (See Instructions)
3.	SEC USE ONLY		
4.	Citizenship or Plac Delaware	e of Orga	anization
		5.	Sole Voting Power 0
	Number of Shares Beneficially Owned by Each Reporting	6.	Shared Voting Power 7,111,939 ⁽¹⁾
		7.	Sole Dispositive Power 0
	Person With:	8.	Shared Dispositive Power 7,111,939 ⁽¹⁾
9.	Aggregate Amoun 7,111,939 ⁽¹⁾	t Benefic	ially Owned by Each Reporting Person
10.	Check if the Aggre	egate Am	ount in Row (9) Excludes Certain Shares (See Instructions)
11.	Percent of Class R $10.8\%^{(2)}$	epresente	d by Amount in Row (9)
12.	Type of Reporting PN	Person (S	See Instructions)

⁽¹⁾ As described in Item 4 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 7,111,939 shares of the Issuer's Common Stock. All of these shares are directly 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. Each 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.

1.	Name of Reporting Atlas Ventur		
2.	Check the Approp (a) □ (b) ⊠	riate Box	if a Member of a Group (See Instructions)
3.	SEC USE ONLY		
4.	Citizenship or Place of Organization Delaware		
		5.	Sole Voting Power 0
	Number of Shares Beneficially Owned by Each Reporting Person With:	6.	Shared Voting Power 7,111,939 ⁽¹⁾
		7.	Sole Dispositive Power 0
		8.	Shared Dispositive Power 7,111,939 ⁽¹⁾
9.	Aggregate Amoun 7,111,939 ⁽¹⁾	t Benefici	ally Owned by Each Reporting Person
10.	Check if the Aggre	egate Am	ount in Row (9) Excludes Certain Shares (See Instructions)
11.	Percent of Class R $10.8\%^{(2)}$	epresente	d by Amount in Row (9)
12.	Type of Reporting OO	Person (S	See Instructions)

⁽¹⁾ As described in Item 4 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 7,111,939 shares of the Issuer's Common Stock. All of these shares are directly 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. Each 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.

1.	Name of Reporting Atlas Ventur		unity Fund I, L.P.
2.	Check the Appropr (a) □ (b) ⊠	riate Box	if a Member of a Group (See Instructions)
3.	SEC USE ONLY		
4.	Citizenship or Plac Delaware	e of Orga	nization
		5.	Sole Voting Power 0
	Number of Shares Beneficially Owned by Each Reporting	6.	Shared Voting Power 1,166,937 ⁽¹⁾
		7.	Sole Dispositive Power 0
	Person With:	8.	Shared Dispositive Power 1,166,937 ⁽¹⁾
9.	Aggregate Amoun 1,166,937 ⁽¹⁾	t Benefici	ally Owned by Each Reporting Person
10.	Check if the Aggre	egate Am	ount in Row (9) Excludes Certain Shares (See Instructions)
11.	Percent of Class R $1.8\%^{(2)}$	epresente	d by Amount in Row (9)
12.	Type of Reporting PN	Person (S	See Instructions)

⁽¹⁾ As described in Item 4 below, Atlas Venture Opportunity Fund I, L.P., a Delaware limited partnership ("AVO I") beneficially owns 1,166,937 shares of the Issuer's Common Stock that are directly held by AVO I. Atlas Venture Associates Opportunity I, L.P., a Delaware limited partnership ("AVAO LP") is the general partner of AVO I and Atlas Venture Associates Opportunity I, LLC, a Delaware limited liability company ("AVAO LLC" and together with AVO I and AVAO LP, the "Opportunity Fund Reporting Persons") is the general partner of AVAO LP. Each of AVAO LP and AVAO LLC has voting and dispositive power over the shares held by AVO I. As such, each of the Opportunity Fund Reporting Persons share voting and dispositive power with respect to the shares held by AVO I.

1.	Name of Reporting Persons Atlas Venture Associates Opportunity I, L.P.	
2.	Check the Appropr (a) □ (b) ⊠	iate Box if a Member of a Group (See Instructions)
3.	SEC USE ONLY	
4.	Citizenship or Plac Delaware	e of Organization
		5. Sole Voting Power 0
	Number of Shares Beneficially Owned by Each Reporting	6. Shared Voting Power $1,167,545^{(1)}$
		7. Sole Dispositive Power 0
	Person With:	8. Shared Dispositive Power 1,167,545 ⁽¹⁾
9.	Aggregate Amount $1,167,545^{(1)}$	Beneficially Owned by Each Reporting Person
10.	Check if the Aggre	gate Amount in Row (9) Excludes Certain Shares (See Instructions)
11.	Percent of Class Re $1.8\%^{(2)}$	presented by Amount in Row (9)
12.	Type of Reporting PN	Person (See Instructions)

⁽¹⁾ As described in Item 4 below, AVAO LP and AVAO LLC beneficially own 1,167,545 shares of the Issuer's Common Stock (1,166,937 shares of Common Stock that are directly held by AVO I and 608 shares of Common Stock that are directly held by AVAO LP). AVAO LP is the general partner of AVO I and AVAO LLC is the general partner of AVAO LP. Each of AVAO LP and AVAO LLC has voting and dispositive power over the shares held by AVO I and AVAO LLC has voting and dispositive power over the shares held by AVAO LP. As such, each of the Opportunity Fund Reporting Persons share voting and dispositive power with respect to the shares held by AVO I.

1.	Name of Reporting Atlas Ventur	Persons e Associates Opportunity I, LLC
2.	Check the Appropr (a) □ (b) ⊠	iate Box if a Member of a Group (See Instructions)
3.	SEC USE ONLY	
4.	Citizenship or Plac Delaware	e of Organization
		5. Sole Voting Power 0
	Number of Shares Beneficially Owned by Each Reporting	6. Shared Voting Power $1,167,545^{(1)}$
		7. Sole Dispositive Power 0
	Person With:	8. Shared Dispositive Power $1,167,545^{(1)}$
9.	Aggregate Amoun 1,167,545 ⁽¹⁾	Beneficially Owned by Each Reporting Person
10.	Check if the Aggre	gate Amount in Row (9) Excludes Certain Shares (See Instructions)
11.	Percent of Class R 1.8% (2)	epresented by Amount in Row (9)
12.	Type of Reporting OO	Person (See Instructions)

⁽¹⁾ As described in Item 4 below, AVAO LP and AVAO LLC beneficially own 1,167,545 shares of the Issuer's Common Stock (1,166,937 shares of Common Stock that are directly held by AVO I and 608 shares of Common Stock that are directly held by AVAO LP). AVAO LP is the general partner of AVO I and AVAO LLC is the general partner of AVAO LP. Each of AVAO LP and AVAO LLC has voting and dispositive power over the shares held by AVO I and AVAO LLC has voting and dispositive power over the shares held by AVAO LP. As such, each of the Opportunity Fund Reporting Persons share voting and dispositive power with respect to the shares held by AVO I.

CUSIP No. 37148K100

<u>Item 1(a)</u> <u>Name of Issuer</u> Generation Bio Co. (the "Issuer")

Item 1(b) Address of Issuer's Principal Executive Offices 301 Binney Street Cambridge, MA, 02142

Item 2(a) Name of Person Filing

This Schedule 13G 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 ("AVO I"), (v) Atlas Venture Associates Opportunity I, L.P., a Delaware limited partnership ("AVO I"), (v) Atlas Venture Associates Opportunity I, L.P., a Delaware limited partnership ("AVO LP") and (vi) Atlas Venture Associates Opportunity I, LLC, a Delaware limited liability company ("AVAO LLC" and together with AVO I and AVAO LP, the "Opportunity Fund Reporting Persons" and together with the Fund X Reporting Persons, the "Reporting Persons").

Item 2(b) Address of Principal Business Office or, if none, Residence 300 Technology Square, 8th Floor Cambridge, Massachusetts 02139

Item 2(c) Citizenship Each of Atlas X, AVA X LP, AVO I and AVAO LP is a Delaware limited partnership. Each of AVA X LLC and AVAO LLC is a Delaware limited liability company.

<u>Item 2(d)</u> <u>Title of Class of Securities</u> Common Stock, \$0.0001 par value per share

<u>Item 2(e)</u> <u>CUSIP Number</u> 37148K100

Item 3 Not applicable.

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: Atlas X is the record owner of 7,111,939 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.

Amount beneficially owned: AVO I is the record owner of 1,166,937 shares of Common Stock. AVAO LP is the general partner of AVO I and AVAO LLC is the general partner of AVAO LP. Each of AVO I, AVAO LP and AVAO LLC has shared voting and dispositive power over the shares held by AVO I. As such, each of AVO I, AVAO LP and AVAO LLC may be deemed to beneficially own the shares held by AVO I.

Amount beneficially owned: AVAO LP is the record owner of 608 shares of Common Stock. AVAO LLC is the general partner of AVAO LP. Each of AVAO LP and AVAO LLC has shared voting and dispositive power over the shares held by AVAO LP. As such, each of AVAO LP and AVAO LLC may be deemed to beneficially own the shares held by AVAO LP.

CUSIP No. 37148K100

(b) Percent of class: Each of the Fund X Reporting Persons may be deemed to beneficially own 10.8% of the Issuer's outstanding Common Stock.

Each of the Opportunity Fund Reporting Persons may be deemed to beneficially own 1.8% of the Issuer's outstanding Common Stock.

These percentages are calculated based upon 66,078,017 outstanding shares of Common Stock of the Issuer as of November 3, 2023, as reported in the Issuer's Form 10-Q for the quarter ended September 30, 2023, filed with the Securities and Exchange Commission on November 9, 2023.

Collectively, the Reporting Persons beneficially own an aggregate of 8,279,484 shares of Common Stock, which represents 12.5% 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 13G 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) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote: None of the Reporting Persons have the sole power to direct the vote of the Common Stock.

(ii) Shared power to vote or to direct the vote: Each Fund X Reporting Person shares power to vote or direct the vote of 7,111,939 shares of Common Stock.

AVO I shares power to vote or direct the vote of 1,166,937 shares of Common Stock.

Each of AVAO LP and AVAO LLC shares power to vote or direct the vote of 1,167,545 shares of Common Stock.

(iii) Sole power to dispose or to direct the disposition of: None of the Reporting Persons have the sole power to dispose or to direct the disposition of the Common Stock.

(iv) Shared power to dispose or to direct the disposition of: Each Fund X Reporting Person shares power to dispose or to direct the disposition of 7,111,939 shares of Common Stock.

AVO I shares power to dispose or to direct the disposition of 1,166,937 shares of Common Stock.

Each of AVAO LP and AVAO LLC shares power to dispose or to direct the disposition of 1,167,545 shares of Common Stock.

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. \Box

Item 6 Ownership of More than Five Percent 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 Not applicable.

CUSIP No. 37148K100

Item 8 Identification and Classification of Members of the Group Not applicable.

Item 9 Notice of Dissolution of Group Not applicable.

Item 10CertificationNot applicable.

SIGNATURE

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: February 9, 2024

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: CFO

ATLAS VENTURE ASSOCIATES X, L.P.

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

By: /s/ Ommer Chohan

Name:	Ommer Chohan
Title:	CFO

ATLAS VENTURE ASSOCIATES X, LLC

By:	/s/ Ommer Chohan
Name:	Ommer Chohan
Title:	CFO

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:	CFO

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: CFO

ATLAS VENTURE ASSOCIATES OPPORTUNITY I, LLC

By: /s/ Ommer Chohan Name: Ommer Chohan

Title: CFO

EXHIBITS

A: Joint Filing Agreement (Incorporated by reference to Exhibit A to the Schedule 13G/A, filed with the Securities and Exchange Commission on February 11, 2022)