
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13D

UNDER THE SECURITIES EXCHANGE ACT OF 1934
(Amendment No. 4)*

AXCELLA HEALTH INC.

(Name of Issuer)

Common Stock, \$0.001 par value per share
(Title of Class of Securities)

05454B105
(CUSIP Number)

Noubar B. Afeyan, Ph.D.
Flagship Pioneering
55 Cambridge Parkway, Suite 800E
Cambridge, MA 02142
(617) 868-1888

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

October 13, 2022
(Date of Event Which Requires Filing of Statement on Schedule 13D)

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), checking the following box.

* 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).

(1)	Name of Reporting Persons: Flagship VentureLabs IV, LLC	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): WC	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 2,035,830
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 2,035,830
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 2,035,830	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 2.8%	
(14)	Type of Reporting Person (See Instructions): OO	

(1)	Name of Reporting Persons: Flagship Ventures Fund IV, L.P.	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): WC	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 16,137,468
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 16,137,468
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 16,137,468	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 22.0%	
(14)	Type of Reporting Person (See Instructions): PN	

(1)	Name of Reporting Persons: Flagship Ventures Fund IV-Rx, L.P.	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): WC	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 2,004,657
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 2,004,657
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 2,004,657	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 2.7%	
(14)	Type of Reporting Person (See Instructions): PN	

(1)	Name of Reporting Persons: Flagship Ventures Fund IV General Partner LLC	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): AF	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 18,142,125
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 18,142,125
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 18,142,125	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 24.7%	
(14)	Type of Reporting Person (See Instructions): OO	

(1)	Name of Reporting Persons: Flagship Ventures Fund 2007, L.P.	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): WC	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 1,761,029
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 1,761,029
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 1,761,029	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 2.4%	
(14)	Type of Reporting Person (See Instructions): PN	

(1)	Name of Reporting Persons: Flagship Ventures 2007 General Partner LLC	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): AF	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 1,761,029
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 1,761,029
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 1,761,029	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 2.4%	
(14)	Type of Reporting Person (See Instructions): OO	

(1)	Name of Reporting Persons: Flagship Ventures Opportunities Fund I, L.P.	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): WC	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 6,299,611
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 6,299,611
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 6,299,611	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 8.6%	
(14)	Type of Reporting Person (See Instructions): PN	

(1)	Name of Reporting Persons: Flagship Ventures Opportunities Fund I General Partner LLC	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): AF	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 6,299,611
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 6,299,611
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 6,299,611	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 8.6%	
(14)	Type of Reporting Person (See Instructions): OO	

(1)	Name of Reporting Persons: FPA, L.P.	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): WC	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 3,048,780
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 3,048,780
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 3,048,780	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 4.1%	
(14)	Type of Reporting Person (See Instructions): PN	

(1)	Name of Reporting Persons: FPA General Partner LLC	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): AF	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 3,048,780
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 3,048,780
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 3,048,780	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 4.1%	
(14)	Type of Reporting Person (See Instructions): OO	

(1)	Name of Reporting Persons: Flagship Pioneering, Inc.	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): AF	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 3,048,780
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 3,048,780
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 3,048,780	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 4.1%	
(14)	Type of Reporting Person (See Instructions): CO	

(1)	Name of Reporting Persons: Noubar B. Afeyan, Ph.D.	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions): (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only:	
(4)	Source of Funds (See Instructions): AF	
(5)	Check Box if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization: United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 29,251,545
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 29,251,545
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person: 29,251,545	
(12)	Check Box if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions): <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11): 39.8%	
(14)	Type of Reporting Person (See Instructions): IN	

ITEM 1. SECURITY AND ISSUER

This Amendment No. 4 (this "Amendment") amends and supplements the Schedule 13D (the "Schedule 13D") filed by the Reporting Persons (as defined below) on May 23, 2019, as amended, with respect to the common stock, \$0.001 par value per share ("Common Stock"), of Axcella Health Inc. (the "Issuer" or the "Company"). Except as specifically provided herein, this Amendment does not modify any of the information previously reported in the Schedule 13D.

ITEM 2. IDENTITY AND BACKGROUND

Item 2 of the Schedule 13D is hereby amended and restated as follows:

This Schedule 13D is being filed by the following persons (each a "Reporting Person"):

- i. Flagship VentureLabs IV, LLC, a Delaware limited liability company ("VentureLabs IV"). The manager of VentureLabs IV is Flagship Ventures Fund IV, L.P., a Delaware limited partnership ("Flagship Fund IV").
- ii. Flagship Fund IV. The general partner of Flagship Fund IV is Flagship Ventures Fund IV General Partner LLC, a Delaware limited liability company ("Flagship Fund IV GP").
- iii. Flagship Ventures Fund IV-Rx, L.P., a Delaware limited partnership ("Flagship Fund IV-Rx" and together with VentureLabs IV and Flagship Fund IV, the "Flagship IV Funds"). The general partner of Flagship Fund IV-Rx is Flagship Fund IV GP.
- iv. Flagship Fund IV GP. Noubar B. Afeyan, Ph.D. ("Dr. Afeyan") is the sole manager of Flagship Fund IV GP.
- v. Flagship Ventures Fund 2007, L.P., a Delaware limited partnership ("Flagship Fund 2007"). The general partner of Flagship Fund 2007 is Flagship Ventures Fund 2007 General Partner LLC, a Delaware limited liability company ("Flagship Fund 2007 GP").
- vi. Flagship Fund 2007 GP. Dr. Afeyan is the sole manager of Flagship Fund 2007 GP.
- vii. Flagship Ventures Opportunities Fund I, L.P., a Delaware limited partnership ("Flagship Opportunities I"). The general partner of Flagship Opportunities I is Flagship Ventures Opportunities Fund I General Partner LLC, a Delaware limited liability company ("Flagship Opportunities GP").
- viii. Flagship Opportunities GP. Dr. Afeyan is the sole manager of Flagship Opportunities GP.
- ix. FPA, L.P., a Delaware limited partnership ("FPA Fund" and together with the Flagship IV Funds, Flagship Fund 2007 and Flagship Opportunities I, the "Flagship Funds"). The general partner of FPA Fund is FPA General Partner LLC, a Delaware limited liability company ("FPA Fund GP").
- x. FPA Fund GP. The manager of FPA Fund GP is Flagship Pioneering, Inc., a Delaware corporation ("Flagship Pioneering").
- xi. Flagship Pioneering. Dr. Afeyan is the Chief Executive Officer and sole shareholder of Flagship Pioneering.
- xii. Dr. Afeyan, a citizen of the United States of America.

The principal business of each Reporting Person is the venture capital investment business. The principal business address of each Reporting Person is 55 Cambridge Parkway, Suite 800E, Cambridge, Massachusetts 02142.

During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

During the last five years, none of the Reporting Persons has been party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding were or are 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.

ITEM 4. PURPOSE OF TRANSACTION

Item 4 is hereby amended and supplemented as follows:

On October 10, 2022, David R. Epstein, an Executive Partner at Flagship Pioneering, resigned from the Issuer's board of directors. On the same date, Robert L. Rosiello, an Executive Partner at Flagship Pioneering, and Torben Straight Nissen, a senior partner at Flagship Pioneering, were appointed to the Issuer's board of directors, effective immediately.

The Reporting Persons, either directly or indirectly through Mr. Rosiello and Mr. Nissen in their fiduciary capacities as directors of the Issuer, may engage in discussions from time to time with the Issuer's board of directors, the Issuer's management or the Issuer's other stockholders. These discussions may be with respect to (i) acquiring or disposing shares of Common Stock or other securities of the Issuer (collectively, the "Securities"); (ii) maintaining or changing the Issuer's business, operations, governance, management, strategy or capitalization; or (iii) implementing transactions that may relate to or may result in any matter set forth in paragraphs (a) through (j) of Item 4 of Schedule 13D. Additionally, the Reporting Persons may acquire or dispose of Securities through open market transactions, privately negotiated transactions or other methods.

October 2022 Securities Purchase Agreement

On October 13, 2022, the Company entered into a Securities Purchase Agreement (the "October 2022 Purchase Agreement") with Flagship Fund IV, Flagship Opportunities I, FPA Fund and certain other purchasers named therein (the "Purchasers"), pursuant to which the Company agreed to issue and sell in a registered direct offering an aggregate of 20,847,888 shares of Common Stock at a purchase price of \$1.64 per share (the "October 2022 Financing"). Pursuant to the October 2022 Purchase Agreement, at the closing of the October 2022 Financing on October 13, 2022, Flagship Fund IV, Flagship Opportunities I and FPA Fund purchased 2,743,902 shares, 914,634 shares and 3,048,780 shares of Common Stock, respectively.

The October 2022 Purchase Agreement contains customary representations, warranties, and agreements by the Company, and customary indemnification and other obligations of the Company and the purchasers named therein. Pursuant to the terms of the October 2022 Purchase Agreement, the Company has also agreed to certain restrictions on the issuance and sale of its securities until 60 days following the date of the October 2022 Purchase Agreement, subject to certain exceptions. Also, pursuant to the terms of the October 2022 Purchase Agreement, the Purchasers have certain rights to participate in subsequent issuances of the Company's securities during the 6 month period following the date of the October 2022 Purchase Agreement, subject to certain exceptions.

The shares of Common Stock were offered and sold by the Company pursuant to an effective shelf registration statement on Form S-3 (File No. 333-238983), which was originally filed with the Securities and Exchange Commission on June 5, 2020, and was declared effective on June 12, 2020.

The foregoing summary of the October 2022 Purchase Agreement is qualified in its entirety by the full text of the October 2022 Purchase Agreement, the form of which is filed herewith as Exhibit 99.2 and incorporated herein by reference.

Conversion of September 2022 Unsecured Convertible Promissory Notes

In connection with the October 2022 Financing and pursuant to the terms for automatic conversion upon a Subsequent Financing under the Securities Purchase Agreement dated September 20, 2022, the conversion price of the Notes became fixed at \$1.64 and the Outstanding Balance plus accrued interest of the unsecured convertible promissory notes held by Flagship Fund IV and Flagship Opportunities I automatically converted into 2,757,333 shares and 919,111 shares of Common Stock, respectively.

ITEM 5. INTEREST IN SECURITIES OF THE ISSUER

Item 5(a)-(c) is hereby amended and restated as follows:

(a)-(b) The information set forth in rows 7 through 13 of the cover pages to this Schedule 13D is incorporated by reference. The percentage set forth in row 13 is based on 73,500,915 outstanding shares of Common Stock as of October 13, 2022, as provided by the Issuer to the Reporting Persons.

VentureLabs IV, Flagship Fund IV and Flagship Fund IV-Rx directly hold 2,035,830 shares, 14,101,638 shares and 2,004,657 shares of Common Stock, respectively. Flagship Fund IV, as the manager of VentureLabs IV, may be deemed to beneficially own the shares directly held by VentureLabs IV. Flagship Fund IV GP, as the general partner of the Flagship Fund IV Funds, may be deemed to beneficially own the shares directly held by the Flagship Fund IV Funds.

Flagship Fund 2007 directly holds 1,761,029 shares of Common Stock. Flagship 2007 GP, as the general partner of Flagship Fund 2007, may be deemed to beneficially own the shares directly held by Flagship Fund 2007.

Flagship Opportunities I directly holds 6,299,611 shares of Common Stock. Flagship Opportunities GP, as the general partner of Flagship Opportunities I, may be deemed to beneficially own the shares directly held by Flagship Opportunities I.

FPA Fund directly holds 3,048,780 shares of Common Stock. FPA Fund GP, as the general partner of FPA Fund, and Flagship Pioneering, as manager of FPA Fund GP, may be deemed to beneficially own the shares held directly by FPA Fund.

Noubar B. Afeyan, Ph.D., as the sole manager of Flagship Fund IV GP, Flagship Fund 2007 GP and Flagship Opportunities GP and as Chief Executive Officer and sole stockholder of Flagship Pioneering, may be deemed to beneficially own the shares directly held by the Flagship Funds.

(c) Except as reported in Item 4 of this Statement, none of the Reporting Persons have effected transactions in the Common Stock of the Issuer during the past 60 days.

ITEM 7. MATERIAL TO BE FILED AS EXHIBITS

Exhibit 99.1 Joint Filing Agreement (filed herewith).

Exhibit 99.2 October 2022 Purchase Agreement (incorporated by reference to Exhibit 10.1 to the Issuer's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 13, 2022).

SIGNATURE

After reasonable inquiry and to the best of its knowledge and belief, the undersigned certifies that the information set forth in this Statement is true, complete and correct.

Dated: October 17, 2022

FLAGSHIP VENTURELABS IV, LLC

By: Flagship Ventures Fund IV, L.P.

By: Flagship Ventures Fund IV General Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES FUND IV, L.P.

By: Flagship Ventures Fund IV General Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES FUND IV-Rx, L.P.

By: Flagship Ventures Fund IV General Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES FUND IV GENERAL PARTNER
LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES FUND 2007, L.P.

By: Flagship Ventures 2007 General Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES 2007 GENERAL PARTNER LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES OPPORTUNITIES FUND I, L.P.

By: Flagship Ventures Opportunities Fund I General
Partner LLC

CUSIP No. 05454B105

By: /s/ Noubar B. Afeyan, Ph.D.
Name: Noubar B. Afeyan, Ph.D.
Title: Manager

FLAGSHIP VENTURES OPPORTUNITIES FUND I
GENERAL PARTNER LLC

By: /s/ Noubar B. Afeyan, Ph.D.
Name: Noubar B. Afeyan, Ph.D.
Title: Manager

FPA, L.P.

By: FPA General Partner LLC
By: Flagship Pioneering, Inc.

By: /s/ Noubar B. Afeyan, Ph.D.
Name: Noubar B. Afeyan, Ph.D.
Title: Chief Executive Officer

FPA GENERAL PARTNER LLC

By: Flagship Pioneering, Inc.

By: /s/ Noubar B. Afeyan, Ph.D.
Name: Noubar B. Afeyan, Ph.D.
Title: Chief Executive Officer

FLAGSHIP PIONEERING, INC.

By: /s/ Noubar B. Afeyan, Ph.D.
Name: Noubar B. Afeyan, Ph.D.
Title: Chief Executive Officer

/s/ Noubar B. Afeyan, Ph.D.
NOUBAR B. AFEYAN, PH.D.

CUSIP No. 05454B105

JOINT FILING AGREEMENT

The undersigned acknowledge and agree that the foregoing statement on Schedule 13D is filed on behalf of each of the undersigned and that all subsequent amendments to this statement on Schedule 13D may be filed on behalf of each of the undersigned without the necessity of filing additional joint filing agreements. The undersigned acknowledge that each shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning him or it contained herein or therein, but shall not be responsible for the completeness and accuracy of the information concerning the others, except to the extent that he or it knows or has reason to believe that such information is inaccurate.

Dated: October 17, 2022

FLAGSHIP VENTURELABS IV, LLC

By: Flagship Ventures Fund IV, L.P.

By: Flagship Ventures Fund IV General Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES FUND IV, L.P.

By: Flagship Ventures Fund IV General Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES FUND IV-Rx, L.P.

By: Flagship Ventures Fund IV General Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES FUND IV GENERAL PARTNER
LLCBy: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES FUND 2007, L.P.

By: Flagship Ventures 2007 General Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES 2007 GENERAL PARTNER LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

CUSIP No. 05454B105

FLAGSHIP VENTURES OPPORTUNITIES FUND I, L.P.

By: Flagship Ventures Opportunities Fund I General
Partner LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FLAGSHIP VENTURES OPPORTUNITIES FUND I
GENERAL PARTNER LLC

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Manager

FPA, L.P.

By: FPA General Partner LLC

By: Flagship Pioneering, Inc.

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Chief Executive Officer

FPA GENERAL PARTNER LLC

By: Flagship Pioneering, Inc.

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Chief Executive Officer

FLAGSHIP PIONEERING, INC.

By: /s/ Noubar B. Afeyan, Ph.D.

Name: Noubar B. Afeyan, Ph.D.

Title: Chief Executive Officer

/s/ Noubar B. Afeyan, Ph.D.

NOUBAR B. AFEYAN, PH.D.