# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

# SCHEDULE 13G (Rule 13d-102)

Information to be Included in Statements Filed Pursuant to § 240.13d-1(b), (c) and (d) and Amendments Thereto Filed Pursuant to § 240.13d-2

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

# **Rapid Micro Biosystems, Inc.**

(Name of Issuer)

Class A Common Stock, \$0.01 par value per share (Title of Class of Securities)

> 75340L104 (CUSIP Number)

December 31, 2021 (Date of Event Which Requires Filing of This Statement)

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

 $\Box$  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 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, as amended ("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 No. 75340L104

CUSI	Page 2 of					
1	Names	of r	eporting persons			
	Bain C	apita	al Life Sciences Fund, L.P.			
2	Check the appropriate box if a member of a group					
	(a) 🗆		(b) 🗆			
3	3 SEC use only					
4	Citizer	ship	o or place of organization			
	Cayman Islands					
	U	5	Sole voting power			
Nu	mber of		0 shares of Class A Common Stock			
s	hares	6	Shared voting power			
	eficially med by		7,651,369 shares of Class A Common Stock			
	each porting	7	Sole dispositive power			
р	erson		0 shares of Class A Common Stock			
	with:	8	Shared dispositive power			
			7,651,369 shares of Class A Common Stock			
9	Aggreg	Aggregate amount beneficially owned by each reporting person				
	7,651,369 shares of Class A Common Stock					
10	Check if the aggregate amount in Row (9) excludes certain shares					
11	Percent of class represented by amount in Row (9)					
	22.2%					
12	Type of reporting person					
	PN					

CUSIP No. 753401 104

CUSIP No. 75340L104							
1	1 Names of reporting persons						
	BCIP I	e Sciences Associates, LP					
2	Check	appropriate box if a member of a group					
	(a) 🗆	(a)  (b)  (c)  (c)  (c)  (c)  (c)  (c)  (c)  (c					
3	SEC use only						
4	Citizenship or place of organization						
	Delaware						
		5	Sole voting power				
N	mber of		0 shares of Class A Common Stock				
-	hares	6					
	eficially ned by		783,191 shares of Class A Common Stock				
	each	7					
	porting erson		0 shares of Class A Common Stock				
	with:	8					
9	Aggreg	vate	783,191 shares of Class A Common Stock amount beneficially owned by each reporting person				
5	Aggregate amount beneficiary owned by each reporting person						
10	783,191 shares of Class A Common Stock						
10	10 Check if the aggregate amount in Row (9) excludes certain shares						
11	class represented by amount in Row (9)						
	2.3%						
12	Type of reporting person						
	PN						

# CUSIP No. 75340L104

#### Item 1(a). Name of Issuer

The name of the issuer to which this filing on Schedule 13G relates is Rapid Micro Biosystems, Inc. (the "Issuer").

#### Item 1(b). Address of Issuer's Principal Executive Offices

The principal executive offices of the Issuer are located at 1001 Pawtucket Boulevard West, Suite 280, Lowell, Massachusetts 01854.

#### Item 2(a). Name of Person Filing

This Schedule 13G is being filed jointly by Bain Capital Life Sciences Fund, L.P., a Cayman Islands exempted limited partnership ("BCLS"), and BCIP Life Sciences Associates, LP, a Delaware limited partnership ("BCIPLS" and, together with BCLS, the "Reporting Persons").

Bain Capital Life Sciences Investors, LLC, a Delaware limited liability company ("BCLSI"), is the general partner of Bain Capital Life Sciences Partners, LP, a Cayman Islands exempted limited partnership ("BCLSP"), which is the general partner of BCLS.

Boylston Coinvestors, LLC, a Delaware limited liability company ("Boylston"), is the general partner of BCIPLS. BCLSI governs the investment strategy and decision-making process with respect to investments held by BCIPLS.

As a result, BCLSI may be deemed to share voting and dispositive power with respect to the securities held by the Reporting Persons.

The Reporting Persons have entered into a Joint Filing Agreement, dated February 14, 2022, pursuant to which the Reporting Persons have agreed to file this Schedule 13G jointly in accordance with the provisions of Rule 13d-1(k)(1) promulgated under the Act.

#### Item 2(b). Address of Principal Business Office or, if None, Residence

The principal business address for each of the Reporting Persons, BCLSI, BCLSP and Boylston is 200 Clarendon Street, Boston, Massachusetts 02116.

#### Item 2(c). Citizenship

BCLS and BCLSP are organized under the laws of the Cayman Islands. BCIPLS, BCLSI and Boylston are organized under the laws of the State of Delaware.

#### Item 2(d). Title of Class of Securities

The class of securities of the Issuer to which this Schedule 13G relates is Class A Common Stock, \$0.01 par value per share ("Class A Common Stock").

#### Item 2(e). CUSIP Number

The CUSIP number of the Class A Common Stock is 75340L104.

#### CUSIP No. 75340L104

#### 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

- (b)  $\Box$  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c)  $\Box$  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)  $\Box$  An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f)  $\Box$  An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
- (g)  $\Box$  A parent holding company or control person in accordance with § 240.13d-1(b)(1)(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)  $\Box$  A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J);
- (k)  $\Box$  Group, in accordance with § 240.13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution.

#### Item 4. Ownership

#### (a) Amount beneficially owned:

As of the close of business on December 31, 2021, BCLS held 7,651,369 shares of Class A Common Stock, representing approximately 22.2% of the outstanding shares of Class A Common Stock, and BCIPLS held 783,191 shares of Class A Common Stock, representing approximately 2.3% of the outstanding shares of Class A Common Stock.

As a result of the foregoing and the relationships described in Item 2(a) of this Schedule 13G, the Reporting Persons may be deemed to collectively beneficially own an aggregate of 8,434,560 shares of Class A Common Stock, representing approximately 24.5% of the outstanding shares of Class A Common Stock.

The percentage of the outstanding shares of Class A Common Stock held by the Reporting Persons is based on 34,449,144 shares of Class A Common Stock issued and outstanding, as reported by the Issuer in its Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 15, 2021.

#### (b) Percent of class:

See Item 4(a) hereof.

#### (c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

#### 0

(ii) Shared power to vote or direct the vote:

BCLS	7,651,369
BCIPLS	783,191

(iii) Sole power to dispose or to direct the disposition of:

0

(iv) Shared power to dispose or to direct the disposition of:

 BCLS
 7,651,369

 BCIPLS
 783,191

#### Item 5. Ownership of Five Percent or Less of a Class

Not applicable.

## 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. Certifications

Not applicable.

#### SIGNATURES

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

Dated: February 14, 2022

# Bain Capital Life Sciences Fund, L.P.

- By: Bain Capital Life Sciences Partners, LP, its general partner
- By: Bain Capital Life Sciences Investors, LLC, its general partner
- By: /s/ Jeffrey Schwartz Name: Jeffrey Schwartz Title: Managing Director

#### BCIP Life Sciences Associates, LP

- By: Boylston Coinvestors, LLC, its general partner
- By: /s/ Jeffrey Schwartz

Name: Jeffrey Schwartz Title: Authorized Signatory

#### AGREEMENT REGARDING THE JOINT FILING OF SCHEDULE 13G

The undersigned hereby agree as follows:

- (i) Each of them is individually eligible to use the Schedule 13G to which this Exhibit is attached, and such Schedule 13G is filed on behalf of each of them; and
- (ii) Each of them is responsible for the timely filing of such Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein; but none of them is responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

Dated: February 14, 2022

#### Bain Capital Life Sciences Fund, L.P.

- By: Bain Capital Life Sciences Partners, LP, its general partner
- By: Bain Capital Life Sciences Investors, LLC, its general partner
- By: /s/ Jeffrey Schwartz Name: Jeffrey Schwartz

Title: Managing Director

# **BCIP Life Sciences Associates, LP**

- By: Boylston Coinvestors, LLC, its general partner
- By: /s/ Jeffrey Schwartz

Name: Jeffrey Schwartz Title: Authorized Signatory