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

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934

(Amendment No. 7)*

SOLID BIOSCIENCES INC.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

83422E105 (CUSIP Number)

RA Capital Management, L.P.

200 Berkeley Street, 18th Floor Boston, MA 02116 Telephone: 617.778.2500 Attn: Peter Kolchinsky

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

January 11, 2024

(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.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 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).

1	Names of Reporting Persons.
	RA Capital Management, L.P.
2	Check the Appropriate Box if a Member of a Group (See Instructions)
3	(b) □ 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	Citizenship or Place of Organization. Delaware
Nun	nber 7 Sole Voting Power 0 shares
of Sh Benef Owne	icially Shared Voting Power 4,348,828 shares
Ea	ch Sole Dispositive Power U shares
Repo Persor	
11	Aggregate Amount Beneficially Owned by Each Reporting Person
	4,348,828 shares
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13	Percent of Class Represented by Amount in Row (11)
	11.7% ¹
14	Type of Reporting Person (See Instructions)
	IA, PN

The reporting person is the beneficial owner of 4,330,446 shares of the Issuer's Common Stock as well as conversion shares underlying 18,382 vested stock options (right to buy) held by Mr. Rajeev Shah for the benefit of RA Capital. The percentage calculation assumes that there are currently 37,168,925 shares outstanding as of January 8, 2024, as reported in the Issuers Form 10-Q as filed November 8, 2023, giving effect to the 16,973,103 shares sold pursuant to a private placement as reported by the Form 8-K filed on January 8, 2024, and giving effect to the stock options referenced above.

CUSIP No. 83422E105

1	Names of Reporting Persons.
	Peter Kolchinsky
2	Check the Appropriate Box if a Member of a Group (See Instructions) (a) □
3	(b) □ 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): \Box
6	Citizenship or Place of Organization. United States
Nur of Sl Benef Own	8 Shared Voting Power 4,348,828 shares
Ea	9 Sole Dispositive Power 0 shares
11	Aggregate Amount Beneficially Owned by Each Reporting Person
12 13	4,348,828 shares Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) Percent of Class Represented by Amount in Row (11)
14	11.7% ² Type of Reporting Person (See Instructions) HC, IN

The reporting person is the beneficial owner of 4,330,446 shares of the Issuer's Common Stock as well as conversion shares underlying 18,382 vested stock options (right to buy) held by Mr. Rajeev Shah for the benefit of RA Capital. The percentage calculation assumes that there are currently 37,168,925 shares outstanding as of January 8, 2024, as reported in the Issuers Form 10-Q as filed November 8, 2023, giving effect to the 16,973,103 shares sold pursuant to a private placement as reported by the Form 8-K filed on January 8, 2024, and giving effect to the stock options referenced above.

CUSIP No. 83422E105

1	Names of Reporting Persons.
	Rajeev Shah
2	 Check the Appropriate Box if a Member of a Group (See Instructions) (a) □ (b) □
3	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	Citizenship or Place of Organization. United States
Own Ea Repo	hares 8 Shared Voting Power 4,348,828 shares ed by 9 Sole Dispositive Power 0 shares
11	Aggregate Amount Beneficially Owned by Each Reporting Person 4,348,828 shares
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13	Percent of Class Represented by Amount in Row (11) 11.7% ³
14	Type of Reporting Person (See Instructions)
14	HC, IN

3 The reporting person is the beneficial owner of 4,330,446 shares of the Issuer's Common Stock as well as conversion shares underlying 18,382 vested stock options (right to buy) held by Mr. Rajeev Shah for the benefit of RA Capital. The percentage calculation assumes that there are currently 37,168,925 shares outstanding as of January 8, 2024, as reported in the Issuers Form 10-Q as filed November 8, 2023, giving effect to the 16,973,103 shares sold pursuant to a private placement as reported by the Form 8-K filed on January 8, 2024, and giving effect to the stock options referenced above.

1	Names of Reporting Persons.
	RA Capital Healthcare Fund, L.P.
	Check the Appropriate Box if a Member of a Group (See Instructions)
	(b) SEC Use Only
4	Source of Funds (See Instructions): WC
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e):
6	Citizenship or Place of Organization. Delaware
Numl of Sha Benefic	8 Shared Voting Power 4,192,216 shares
Owned Eac	h 9 Sole Dispositive Power 0 shares
Repor Person	
11	Aggregate Amount Beneficially Owned by Each Reporting Person
	4,192,216 shares
12	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13	Percent of Class Represented by Amount in Row (11)
	11.3% ⁴
14	Type of Reporting Person (See Instructions)
	PN

The reporting person is the beneficial owner of 4,192,216 shares of the Issuer's Common Stock. The percentage calculation assumes that there are currently 37,168,925 shares outstanding as of January 8, 2024, as reported in the Issuers Form 10-Q as filed November 8, 2023, giving effect to the 16,973,103 shares sold pursuant to a private placement as reported by the Form 8-K filed on January 8, 2024.

SCHEDULE 13D

Item 1. Security and Issuer

Item 1 of the Statement is hereby amended and supplemented as follows:

This Amendment No. 7 amends and supplements the statement on Schedule 13D originally filed with the Securities and Exchange Commission (the "SEC") on February 9, 2018, as amended by Amendment No. 1 filed on July 30, 2019, Amendment No. 2 filed on December 16, 2020, Amendment No. 3 filed on March 23, 2021, Amendment No. 4 filed on September 6, 2022, Amendment No. 5 filed on October 4, 2022, and Amendment No. 6 filed on December 5, 2022 (the "Statement") by RA Capital Management, L.P. ("RA Capital"), Dr. Kolchinsky, Mr. Shah and RA Capital Healthcare Fund, L.P. (the "Fund") with respect to the common stock, par value \$0.001 per share (the "Common Stock"), of Solid Biosciences Inc., a Delaware corporation (the "Issuer"). Unless otherwise defined herein, capitalized terms used in this Amendment No. 7 shall have the meanings ascribed to them in the Statement.

Item 3. Source and Amount of Funds or Other Consideration

Item 3 of the Initial Statement is hereby amended and supplemented to add the following:

January 2024 Securities Purchase Agreement

On January 8, 2024, the Issuer entered into a securities purchase agreement (the "January 2024 Securities Purchase Agreement") with certain institutional accredited investors (the "January 2024 PIPE Investors"), pursuant to which the Issuer agreed to issue and sell to the January 2024 PIPE Investors in a private placement an aggregate of 16,973,103 shares of Common Stock at a price of \$5.53 per share, and, to one January 2024 PIPE Investor in lieu of shares of Common Stock, a pre-funded warrant to purchase 2,712,478 shares of Common Stock, at a price of \$5.529 per pre-funded warrant (the "January 2024 Private Placement"). The January 2024 Private Placement closed on January 11, 2024, subject to the satisfaction of certain customary closing conditions. The Fund agreed to purchase 904,160 shares of Common Stock in the January 2024 Private Placement, for total consideration of \$5,000,004.80.

References to and the description of the January 2024 Securities Purchase Agreement set forth above in this Item 3 do not purport to be complete and are qualified in their entirety by reference to the full text of the January 2024 Securities Purchase Agreement, which is attached hereto as Exhibit 2 and incorporated by reference herein.

Item 5. Interests in Securities of the Issuer

Item 5 of the Statement is hereby amended and supplemented to add the following:

(a) and (b) See Items 7-11 of the cover pages above and Item 2.

(c) The following table lists the Reporting Persons' transactions in Common Stock that were effected during the sixty day period prior to the filing of this Schedule 13D:

Transaction	Purchaser	Date	No. Shares	Price
Vested Stock Option (Right to Buy)	RA Capital	December 13,2023	9,650	 \$6.74(1)
Purchase (2)	The Fund	January 8, 2024	904,160	\$ 5.53

- (1) This option was granted on June 6, 2023, and vests in full on the earlier to occur of the one-year anniversary of the grant date and immediately prior to the Issuer's next annual meeting of stockholders occurring after the grant date, and the option will vest automatically as to 100% of the unvested portion of such option upon specified change in control events.
- (2) On January 8, 2024, the Fund entered a contract to purchase the mentioned shares of Common Stock pursuant to the January 2024 Private Placement as referenced above. The transaction closed on January 11, 2024.
- (d) Not applicable.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

Item 6 of the Initial Statement is hereby amended and supplemented to add the following:

January 2024 Registration Rights Agreement

On January 8, 2024, the Issuer entered into a registration rights agreement (the "January 2024 Registration Rights Agreement") with the January 2024 PIPE Investors, including the Fund, pursuant to which the Issuer agreed to register for resale the shares of Common Stock issued in the January 2024 Private Placement and the shares of Common Stock issuable upon exercise of the pre-funded warrants issued in the January 2024 Private Placement (collectively, the "January 2024 Registrable Securities"). Under the January 2024 Registration Rights Agreement, the Issuer agreed to file a registration statement covering the resale by the January 2024 PIPE Investors of their January 2024 Registrable Securities no later than 30 days following the closing of the January 2024 Private Placement (the "January 2024 Filing Date"). The Issuer agreed to use commercially reasonable efforts to cause such registration statement to be declared effective by the SEC as soon as reasonably practicable and to keep such registration statement effective until the date all January 2024 Registrable Securities covered by such registration statement have been sold or cease to be registrable securities under the January 2024 Registration Rights Agreement.

If (i) the registration statement has not been filed by the January 2024 Filing Date, (ii) the registration statement has not been declared effective by the SEC prior to the earlier of (A) five business days after the date on which the Issuer is notified by the SEC that the registration statement will not be reviewed by the SEC or is not subject to further comment by the SEC, or (B) 15 days after the January 2024 Filing Date (or, in the event the SEC reviews the registration statement, 60 days following the closing of the January 2024 Private Placement) or (iii) after the registration statement has been declared effective by the SEC, sales cannot be made pursuant to the registration statement for any reason, subject to certain limited exceptions, then the Issuer has agreed to make pro rata payments to each holder of January 2024 Registrable Securities as liquidated damages in an amount equal to 1% of the aggregate amount invested by each such holder in the January 2024 Registrable Securities for the initial day of failure and for each subsequent 30-day period (or pro rata for any portion thereof) for each such month during which such event continues, subject to certain caps set forth in the January 2024 Registration Rights Agreement.

The Issuer has granted the January 2024 PIPE Investors customary indemnification rights in connection with the registration statement. The January 2024 PIPE Investors have also granted the Issuer customary indemnification rights in connection with the registration statement.

References to and the description of the January 2024 Registration Rights Agreement set forth above in this Item 6 do not purport to be complete and are qualified in their entirety by reference to the full text of the January 2024 Registration Rights Agreement, which is attached hereto as Exhibit 3 and incorporated by reference herein.

Item 7. Material to Be Filed as Exhibits

Item 7 of the Statement is hereby amended and supplemented as follows:

- Exhibit 1 Joint Filing Agreement
- Exhibit 2
 Form of January 2024 Securities Purchase Agreement (incorporated by reference from Exhibit 10.1 to the Issuer's Current Report on Form 8-K filed with the SEC on January 8, 2024 (File No. 001-38360))
- Exhibit 3
 Form of January 2024 Registration Rights Agreement (incorporated by reference from Exhibit 10.2 to the Issuer's Current Report on Form 8-K filed with the SEC on January 8, 2024 (File No. 001-38360))

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.

Date: January 11, 2024

RA CAPITAL MANAGEMENT, L.P.

By: <u>/s/Peter Kolchinsky</u> Name:Peter Kolchinsky Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC Its: General Partner

By: <u>/s/ Peter Kolchinsky</u> Name:Peter Kolchinsky Title: Manager

AGREEMENT

This Joint Filing Agreement, dated as of January 11, 2024, is by and among RA Capital Management, L.P., Peter Kolchinsky, Rajeev Shah, and RA Capital Healthcare Fund, L.P. (the foregoing are collectively referred to herein as the "Filers").

Each of the Filers may be required to file with the United States Securities and Exchange Commission a statement on Schedule 13G and/or 13D with respect to Common Stock, par value \$0.001 per share of Solid Biosciences Inc. beneficially owned by them from time to time.

Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Joint Filing Agreement as an exhibit to such statement, as required by such rule.

This Joint Filing Agreement may be terminated by any of the Filers upon one week's prior written notice or such lesser period of notice as the Filers may mutually agree.

Executed and delivered as of the date first above written.

RA CAPITAL MANAGEMENT, L.P.

By: <u>/s/Peter Kolchinsky</u> Name:Peter Kolchinsky Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

- By: RA Capital Healthcare Fund GP, LLC
- Its: General Partner
- By: <u>/s/ Peter Kolchinsky</u> Name:Peter Kolchinsky Title: Manager