

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

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934

(Amendment No. 6)\*

SOLID BIOSCIENCES INC.

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(Name of Issuer)

Common Stock, par value \$0.001 per share

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(Title of Class of Securities)

83422E105

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(CUSIP Number)

RA Capital Management, L.P.  
200 Berkeley Street, 18<sup>th</sup> Floor  
Boston, MA 02116  
Telephone: 617.778.2500  
Attn: Peter Kolchinsky

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

December 2, 2022

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(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).

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1	Names of Reporting Persons.
	<b>RA Capital Management, L.P.</b>
2	Check the Appropriate Box if a Member of a Group (See Instructions)
	(a) <input type="checkbox"/>
	(b) <input type="checkbox"/>
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):
	<input type="checkbox"/>
6	Citizenship or Place of Organization. <b>Delaware</b>
	7 Sole Voting Power <b>0 shares</b>
	8 Shared Voting Power <b>3,431,618 shares</b>
	9 Sole Dispositive Power <b>0 shares</b>
	10 Shared Dispositive Power <b>3,431,618 shares</b>
11	Aggregate Amount Beneficially Owned by Each Reporting Person
	<b>3,431,618 shares</b>
12	Check 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)
	<b>17.57%<sup>1</sup></b>
14	Type of Reporting Person (See Instructions)
	<b>IA, PN</b>

<sup>1</sup> The reporting person is the beneficial owner of 3,426,286 shares of the Issuer's Common Stock as well as conversion shares underlying 5,332 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 19,527,775 shares outstanding as of December 5, 2022, as reported directly by the Issuer to the Reporting Persons and giving effect to the stock options referenced above.

1	Names of Reporting Persons.	
	<b>Peter Kolchinsky</b>	
2	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input type="checkbox"/>	
	(b) <input type="checkbox"/>	
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):	
	<input type="checkbox"/>	
6	Citizenship or Place of Organization. <b>United States</b>	
	7	Sole Voting Power <b>0 shares</b>
	8	Shared Voting Power <b>3,431,618 shares</b>
	9	Sole Dispositive Power <b>0 shares</b>
	10	Shared Dispositive Power <b>3,431,618 shares</b>
11	Aggregate Amount Beneficially Owned by Each Reporting Person	
	<b>3,431,618 shares</b>	
12	Check 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)	
	<b>17.57%<sup>2</sup></b>	
14	Type of Reporting Person (See Instructions)	
	<b>HC, IN</b>	

<sup>2</sup> The reporting person is the beneficial owner of 3,426,286 shares of the Issuer's Common Stock as well as conversion shares underlying 5,332 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 19,527,775 shares outstanding as of December 5, 2022, as reported directly by the Issuer to the Reporting Persons and giving effect to the stock options referenced above.

1	Names of Reporting Persons.
	<b>Rajeev Shah</b>
2	Check the Appropriate Box if a Member of a Group (See Instructions)
	(a) <input type="checkbox"/>
	(b) <input type="checkbox"/>
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):
	<input type="checkbox"/>
6	Citizenship or Place of Organization. <b>United States</b>
	7 Sole Voting Power <b>0 shares</b>
	8 Shared Voting Power <b>3,431,618 shares</b>
	9 Sole Dispositive Power <b>0 shares</b>
	10 Shared Dispositive Power <b>3,431,618 shares</b>
11	Aggregate Amount Beneficially Owned by Each Reporting Person
	<b>3,431,618 shares</b>
12	Check 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)
	<b>17.57%<sup>3</sup></b>
14	Type of Reporting Person (See Instructions)
	<b>HC, IN</b>

<sup>3</sup> The reporting person is the beneficial owner of 3,426,286 shares of the Issuer's Common Stock as well as conversion shares underlying 5,332 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 19,527,775 shares outstanding as of December 5, 2022, as reported directly by the Issuer to the Reporting Persons and giving effect to the stock options referenced above.

1 Names of Reporting Persons.

**RA Capital Healthcare Fund, L.P.**

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):

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**

Number of Shares Beneficially Owned by Each Reporting Person With	7 Sole Voting Power <b>0 shares</b>
	8 Shared Voting Power <b>3,288,056 shares</b>
	9 Sole Dispositive Power <b>0 shares</b>
	10 Shared Dispositive Power <b>3,288,056 shares</b>

11 Aggregate Amount Beneficially Owned by Each Reporting Person

**3,288,056 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)

**16.83%<sup>4</sup>**

14 Type of Reporting Person (See Instructions)

**PN**

<sup>4</sup> The reporting person is the beneficial owner of 3,288,056 shares of the Issuer's Common Stock. The percentage calculation assumes that there are currently 19,527,775 shares outstanding as of December 5, 2022, as reported directly by the Issuer to the Reporting Persons and giving effect to the stock options referenced above.

**SCHEDULE 13D**

**Item 1. Security and Issuer**

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

This Amendment No. 6 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, and Amendment No. 5 filed on October 4, 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. 6 shall have the meanings ascribed to them in the Statement.

**Item 3. Source and Amount of Funds or Other Consideration**

Item 3 of the Statement is hereby amended and supplemented as follows:

On December 2, 2022, pursuant to the Merger Agreement, the Issuer acquired AavantiBio through the merger of Transitory Subsidiary into AavantiBio, with AavantiBio surviving as a wholly owned subsidiary of the Issuer. In connection with the Merger, the Fund received 300,412 shares of Common Stock in exchange for its 4,506,390 shares of preferred stock of AavantiBio, the Nexus Fund received 109,661 shares of Common Stock in exchange for its 1,644,985 shares of preferred stock of AavantiBio, and a separately managed account managed by RA Capital received 28,569 shares of Common Stock in exchange for its 428,560 shares of preferred stock of AavantiBio.

In connection with the Merger, on December 2, 2022 the Fund acquired 2,163,120 shares of Common Stock of the Issuer's Common Stock pursuant to the Securities Purchase Agreement for total consideration of \$15,249,999.76.

**Item 4. Purpose of Transaction**

Item 4 of the Statement is hereby amended and supplemented to add the following:

The Reporting Persons acquired the Common Stock reported herein for investment purposes and not with an intent, purpose or effect of changing control of the Issuer. Although the Reporting Persons currently have no plan or proposal to acquire any additional Issuer securities or to dispose of any of the Issuer securities reported herein, the Reporting Persons may acquire additional Issuer securities from time to time or dispose of Issuer securities they beneficially own, on the open market or in private transactions or otherwise (including by means of 10b5-1 programs), consistent with their investment purposes and in amounts, on such terms and at such times as to be determined by the Reporting Persons based upon a number of factors, including, without limitation, their ongoing assessment of the Issuer's business prospects, the availability of Issuer securities at prices that would make the purchase or sale of such securities desirable, prevailing market conditions, the availability of other investment opportunities, and/or other considerations.

In addition, consistent with their investment purpose, the Reporting Persons may engage in communications with persons associated with the Issuer, including shareholders of the Issuer, officers of the Issuer, members of the board of directors of the Issuer, and/or other third parties, to discuss matters regarding the Issuer, including but not limited to its operations, strategic direction, governance or capitalization, and potential business combinations or dispositions involving the Issuer or certain of its businesses. Mr. Shah currently serves as a director of the Issuer and therefore will engage in regular discussions with the Issuer's board of directors and management as part of his duties as a director.

Neither Mr. Shah nor the other Reporting Persons have any present plans or proposals that relate to, or could result in, any of the matters referred to in paragraphs (a) through (j), inclusive, of the instructions to Item 4 of Schedule 13D.

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Depending on various factors including, without limitation, the Issuer's financial position, results and strategic direction, actions taken by the Issuer's management and Board, other investment opportunities available to RA Capital, the price levels of the Issuer securities, conditions in the securities markets and general economic and industry conditions, the Reporting Persons may change their purpose and formulate and implement plans or proposals with respect to the Issuer at any time and from time to time. Any such action may be made by the Reporting Persons alone or in conjunction with other shareholders, potential acquirers, financing sources and/or other third parties and could include one or more purposes, plans or proposals that relate to or would result in actions required to be reported herein in accordance with Item 4 of Schedule 13D.

**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. The share numbers and percentages reported on this Statement give effect to the Issuer's one-for-15 reverse stock split effective on October 27, 2022.

(c) The information set forth above in Item 3 of the Statement is incorporated by reference into this Item 5(c).

**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

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CUSIP No. 83422E105

**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: December 5, 2022

RA CAPITAL MANAGEMENT, L.P.

By: /s/Peter Kolchinsky  
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: /s/ Peter Kolchinsky  
Name: Peter Kolchinsky  
Title: Manager

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AGREEMENT

This Joint Filing Agreement, dated as of December 5, 2022, 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: /s/Peter Kolchinsky  
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: /s/ Peter Kolchinsky  
Name: Peter Kolchinsky  
Title: Manager

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