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

#### **SCHEDULE 13D/A**

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

## Tyra Biosciences, Inc.

(Name of Issuer)

#### Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

## 90240B106

(CUSIP Number)

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

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

#### October 18, 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  $\S\S240.13d-1(e)$ , 240.13d-1(f) or 240.13d-1(g), check the following box.  $\square$ 

**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, 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).

1.	Names of Reporting Persons RA Capital Management, L.P.						
2.	Check the Appropriate Box if a Member of a Group (See Instructions)						
	(a)						
	(b)	(b)					
3.	SEC Us	se Only					
4.	Source of Funds (See Instructions) <b>AF</b>						
5.	Check i	f Disclos	ure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)				
6. Citizenship or Place of Organization Delaware							
Nui	mber of	7.	Sole Voting Power  0				
Ben	Shares Beneficially Owned by Each Reporting Person With		Shared Voting Power 10,091,071				
1			Sole Dispositive Power 0				
Pers			Shared Dispositive Power 10,091,071				
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 10,091,071						
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) □						
13.	Percent of Class Represented by Amount in Row (11) 19.99%						
14.	Type of Reporting Person (See Instructions) IA, PN						

1.	Names of Reporting Persons Peter Kolchinsky				
2.	Check the Appropriate Box if a Member of a Group (See Instructions)				
	(a)				
	(b)				
3.	SEC U	se Only			
4.	Source of Funds (See Instructions) <b>AF</b>				
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					
	mber of	7.	Sole Voting Power 0		
Ben	Shares Beneficially Owned by Each Reporting		Shared Voting Power <b>10,091,071</b>		
			Sole Dispositive Power.  0		
Person With		10.	Shared Dispositive Power 10,091,071		
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 10,091,071				
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) □				
13.	Percent of Class Represented by Amount in Row (11) 19.99%				
14.	14. Type of Reporting Person (See Instructions) HC, IN				

1.	Names of Reporting Persons Rajeev Shah					
2.	Check the Appropriate Box if a Member of a Group (See Instructions)					
	(a)					
(b)						
3.	SEC U	se Only				
4.	Source of Funds (See Instructions) <b>AF</b>					
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) □					
6.	Citizer United	lace of Organization				
Nui	nber of	7.	Sole Voting Power  0			
Ben	Shares Beneficially Owned by Each Reporting		Shared Voting Power 10,091,071			
I Re <sub>l</sub>			Sole Dispositive Power 0			
Person With		10.	Shared Dispositive Power 10,091,071			
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 10,091,071					
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) □					
13.	Percent of Class Represented by Amount in Row (11) 19.99%					
14.	Type of Reporting Person (See Instructions) HC, IN					

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 U	se 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				
Nu	mber of	7.	Sole Voting Power 0			
Ben	Shares Beneficially Owned by		Shared Voting Power 8,113,437			
Re	Each porting	9.	Sole Dispositive Power 0			
Pers	Person With		Shared Dispositive Power 8,113,437			
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 8,113,437					
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) □					
13.	Percent of Class Represented by Amount in Row (11) 16.1%					
14.	Type of Reporting Person (See Instructions) PN					

#### Item 1. Security and Issuer

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

This Amendment No. 2 ("Amendment No. 2") amends and supplements the statement on Schedule 13D originally filed with the Securities and Exchange Commission (the "SEC") on September 27, 2021 and amended on February 6, 2024 (the "Statement") by RA Capital Management, L.P. ("RA Capital"), Peter Kolchinsky, Rajeev Shah and RA Capital Healthcare Fund, L.P. (the "Fund") with respect to the common stock, \$0.0001 par value per share ("Common Stock"), of Tyra Biosciences, Inc., a Delaware corporation (the "Issuer"). Unless otherwise defined herein, capitalized terms used in this Amendment No. 1 shall have the meanings ascribed to them in the Statement.

## Item 2. Identity and Background

Item 2 of the Statement is hereby amended and restated as follows:

(a) This Statement is being filed on behalf of RA Capital, Dr. Kolchinsky, Mr. Shah, and the Fund, who are collectively referred to herein as the "Reporting Persons." The agreement among the Reporting Persons to file this Statement jointly in accordance with Rule 13d-1(k) of the Securities Exchange Act of 1934, as amended (the "Act"), is attached hereto as Exhibit 1.

The Reporting Persons' ownership of the Issuer's securities includes (i) 7,477,275 shares of Common Stock held directly by the Fund; (ii) 442,721 shares of Common Stock held by a separately managed account (the "Account"); (iii) 1,496,613 shares of Common Stock held by RA Capital Nexus Fund, L.P. (the "Nexus Fund"); (iv) Pre-Funded Warrants (as defined below) exercisable for up to 1,538,457 shares of Common Stock held directly by the Fund; (v) Exchange Warrants (as defined below) exercisable for up to 1,000,000 shares of Common Stock held directly by the Fund; (vi) a total of 35,200 shares underlying vested stock options (right to buy), and 3,100 shares underlying stock options (right to buy) which shall vest within 60 days of this filing held by Jake Simson for the benefit of RA Capital. The Pre-Funded Warrants and the Exchange Warrants each contain a provision (collectively the "Beneficial Ownership Blocker") which precludes exercise of the warrants to the extent that, following exercise, the Fund, together with its affiliates and other attribution parties, would own more than 19.99% of the Common Stock outstanding. The Fund is currently prohibited from exercising the Pre-Funded Warrants and/or the Exchange Warrants to the extent that such exercise would result in beneficial ownership of more than 10,091,071 shares of Common Stock.

RA Capital Healthcare Fund GP, LLC is the general partner of the Fund and RA Capital Nexus Fund GP, LLC is the general partner of the Nexus Fund. The general partner of RA Capital is RA Capital Management GP, LLC, of which Dr. Kolchinsky and Mr. Shah are the controlling persons. RA Capital serves as investment adviser for the Fund, the Account, and the Nexus Fund and may be deemed a beneficial owner, for purposes of Section 13(d) of the Act, of any securities of the Issuer held by the Fund, the Account, or the Nexus Fund. The Fund and the Nexus Fund have delegated to RA Capital the sole power to vote and the sole power to dispose of all securities held in the Fund's and the Nexus Fund's portfolio, including the shares of the Issuer's Common Stock reported herein. Because the Fund and the Nexus Fund have divested themselves of voting and investment power over the reported securities they hold and may not revoke that delegation on less than 61 days' notice, the Fund and the Nexus Fund disclaim beneficial ownership of the securities they hold for purposes of Section 13(d) of the Act and therefore disclaim any obligation to report ownership of the reported securities under Section 13(d) of the Act. As managers of RA Capital, Dr. Kolchinsky and Mr. Shah may be deemed beneficial owners, for purposes of Section 13(d) of the Act, of any securities reported in this Statement other than for the purpose of determining their obligations under Section 13(d) of the Act, and the filing of the Statement shall not be deemed an admission that either RA Capital, Dr. Kolchinsky or Mr. Shah is the beneficial owner of such securities for any other purpose.

- (b) The address of the principal business office of each of the Reporting Persons is 200 Berkeley Street, 18th Floor, Boston, MA 02116.
- (c) The Fund is a private investment vehicle. RA Capital provides investment management services to the Fund, the Account and the Nexus Fund. The principal occupation of Dr. Kolchinsky and Mr. Shah is investment management.

- (d) During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree of 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.
- (f) See Item 6 of the cover pages.

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

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

## October 2024 Exchange Agreement

On October 18, 2024, the Issuer entered into an exchange agreement (the "Exchange Agreement") with certain stockholders, including the Fund (the "Exchanging Stockholders"), pursuant to which, the Issuer agreed to exchange a total of 3,000,000 shares of Common Stock for one or more prefunded warrants (the "Exchange Warrants") exercisable for an aggregate of 3,000,000 shares of Common Stock (subject to adjustment in the event of stock splits, recapitalizations and other similar events affecting Common Stock), with an exercise price of \$0.0001 per share, as described more fully below (the "Exchange"). Upon the closing of the Exchange on October 22, 2024, the Fund exchanged 1,000,000 shares of Common Stock for Exchange Warrants exercisable for up to 1,000,000 shares of Common Stock.

#### Item 5. Interest in Securities of the Issuer

Item 5 of the Statement is hereby amended and restated as follows:

- (a) The information set forth in rows 11 and 13 of the cover pages to this Statement is incorporated by reference. The percentage set forth in row 13 is based on 52,806,137 outstanding shares of Common Stock, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 7, 2024 less the 3,000,000 shares of Common Stock surrendered to the Issuer in connection with the Exchange, and giving effect to stock options, Pre-Funded Warrants and Exchange Warrants, to the extent exercisable within 60 days hereof, as referenced herein.
- (b) The information set forth in rows 7 through 10 of the cover pages to this Statement and Item 2 above is incorporated by reference.
- (c) Schedule A sets forth all transactions with respect to the shares of Common Stock effected during the past sixty days by any Reporting Person and is incorporated herein by reference.
- (d) No person (other than the Reporting Persons) is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of Common Stock subject to this Statement.
- (e) Not applicable.

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

Item 6 of the Statement is hereby amended and supplemented as follows:

Item 3 is incorporated by reference.

## **Exchange Warrants**

The terms of the Exchange Warrants are substantially identical to the terms of the Pre-Funded Warrants. The Exchange Warrants have an exercise price of \$0.001 per share of Common Stock, is immediately exercisable and will not expire. Under the terms of the Exchange Warrants, the Issuer may not effect the exercise of any Exchange Warrant, and the Fund will not be entitled to exercise any portion of any Exchange Warrant, which, upon giving effect to such exercise, would cause the Fund (together with its affiliates) to own more than 19.99% of the number of shares of the Common Stock outstanding immediately after giving effect to such exercise, as such percentage ownership is determined in accordance with the terms of the Exchange Warrants. However, the Fund may increase or decrease such percentage to any other percentage not in excess of 19.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice is delivered to the Issuer.

The exercise price and the number of shares of Common Stock issuable upon exercise of each Exchange Warrants are subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting the Common Stock.

In the event of certain fundamental transactions (as described in the Exchange Warrants), the Fund will be entitled to receive, upon exercise of the Exchange Warrants, the kind and amount of securities, cash or property that the Fund would have received had it exercised in full the Exchange Warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the Exchange Warrants.

Each Exchange Warrant was issued without registration in reliance on the exemption from registration contained in Section 3(a)(9) of the Securities Act of 1933, as amended.

References to and the description of the Exchange Warrants 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 Form of Exchange Warrant, which is attached hereto as Exhibit 6 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 6 Form of Exchange Warrant (incorporated by reference to Exhibit 4.1 to the Issuer's Current Report on Form 8-K (File No. 001-40800) filed on October 18, 2024).

#### **SIGNATURES**

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: October 22, 2024

## 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

## SCHEDULE A

	Reporting			Price Per
Transaction	Person	Date	No. Shares	Share/Warrant
Vest Stock Option (Right to Buy)	RA Capital	08/29/2024	1,550	(1)
Vest Stock Option (Right to Buy)	RA Capital	09/29/2024	1,550	(1)
Exchange – Disposition of Common Stock	Fund	10/18/2024	1,000,000	(2)
Exchange – Acquisition of Exchange Warrants	Fund	10/18/2024	1,000,000	(2)
Vest Stock Option (Right to Buy)	RA Capital	10/29/2024	1,550	(1)*
Vest Stock Option (Right to Buy)	RA Capital	11/29/2024	1,550	(1)*

- (1) This option represents a right to purchase a total of 18,600 shares of the Issuer's Common Stock, which began vesting on June 29, 2024 in 12 equal monthly installments over one year, subject to Mr. Simson's continued service to the Issuer through each vesting date. These options have an exercise price of \$15.94.
- (2) The exchange was for no additional consideration.

<sup>\*</sup> Represents future vesting options within 60 days from the filing date of this Schedule 13D/A.

#### JOINT FILING AGREEMENT

This Joint Filing Agreement, dated as of October 22, 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 \$0.0001 per share of Tyra 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