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

## SCHEDULE 13G/A

#### Under the Securities Exchange Act of 1934

#### (Amendment No. 2)\*

## AN2 THERAPEUTICS, INC.

(Name of Issuer)

Common Stock, \$0.00001 par value per share (Title of Class of Securities)

> <u>037326105</u> (CUSIP Number)

December 31, 2023 (Date of Event Which Requires Filing of this Statement)

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

 $\square Rule 13d-1(b)$  $\square Rule 13d-1(c)$  $\square Rule 13d-1(d)$ 

\*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 in 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 DEDODT	NCI				
1	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)					
	RA Capital Management, L.P.					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)					
2	CHLCK HIL MITRO	(a)				
				(b)		
3	SEC USE ONLY					
3	SEC USE ONLY					
4	4 CITIZENSHIP OR PLACE OF ORGANIZATION					
	D 1					
	Delaware					
		5	SOLE VOTING POWER			
	NUMBER OF SHARES					
	BENEFICIALLY	6	SHARED VOTING POWER			
	OWNED BY		5,551,295			
	EACH	7	SOLE DISPOSITIVE POWER			
	REPORTING PERSON		0			
	WITH:	8	SHARED DISPOSITIVE POWER			
		-				
			5,551,295			
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	5,551,295					
10						
11	PERCENT OF CLASS	RED	PRESENTED BY AMOUNT IN ROW 9			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9					
	18.7%					
12	ΤΥΡΕ ΟΕ ΒΕΡΟΡΤΙΝ	G PF	RSON (SEE INSTRUCTIONS)			
12	I II E OF KEFOKIIN	UFE	KSON (SEE INSTRUCTIONS)			
	IA, PN					

1	NAMES OF REPORT	INC I				
1	I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)					
	Peter Kolchinsky					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)					
				(a)		
				(b)		
3	SEC USE ONLY					
4 CITIZENSHIP OR PLACE OF ORGANIZATION						
	United States of Ameri					
	United States of Ameri	lca				
1		5	SOLE VOTING POWER			
	NUMBER OF		0			
	SHARES	6	U SHARED VOTING POWER			
	BENEFICIALLY	Ŭ				
	OWNED BY		5,551,295			
	EACH REPORTING	7	SOLE DISPOSITIVE POWER			
	PERSON		0			
	WITH:	8	SHARED DISPOSITIVE POWER			
			5,551,295			
9	AGGREGATE AMOU	INT E	3551,255 BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	5 551 005					
10	5,551,295 CHECK BOX IF THE	AGG	REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)			
10	CHECK BOA IF THE ADDREDATE ANODINT IN ROW (7) EACLODES CERTAIN SHARES (SEE INSTRUCTIONS) $\Box$					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9					
	18.7%					
12	TYPE OF REPORTIN	G PE	RSON (SEE INSTRUCTIONS)			
	HC, IN					

1	NAMES OF REPORT	ING I	PERSONS			
	I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)					
	Rajeev Shah					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)					
-	children hill hill had	1 111/1		(a)		
				(b)		
3	SEC USE ONLY					
4	CITIZENSHIP OR PL	CITIZENSHIP OR PLACE OF ORGANIZATION				
	United States of Amer	ica				
	onited States of Amer	ieu				
		5	SOLE VOTING POWER			
	NUMBER OF		0			
	SHARES BENEFICIALLY	6	SHARED VOTING POWER			
	OWNED BY		5,551,295			
	EACH REPORTING	7	SOLE DISPOSITIVE POWER			
	PERSON		0			
	WITH:	8	SHARED DISPOSITIVE POWER			
			5,551,295			
9						
	5,551,295					
10						
11	PERCENT OF CLASS	S REP	PRESENTED BY AMOUNT IN ROW 9			
	18 7%					
	18.7%					
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)					
	HC, IN					

1	NAMES OF REPORT	ING	DERSONS				
1	I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)						
	RA Capital Healthcare Fund, L.P.						
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)						
	1)						
3	SEC USE ONLY	SEC USE ONLY					
4	CITIZENSHIP OR PLACE OF ORGANIZATION						
	Data						
	Delaware						
		5	SOLE VOTING POWER				
	NUMBER OF						
	NUMBER OF SHARES	6	0 SHARED VOTING POWER				
	BENEFICIALLY	Ŭ					
	OWNED BY	_	5,135,683				
	EACH REPORTING	7	SOLE DISPOSITIVE POWER				
	PERSON		0				
	WITH:	8	SHARED DISPOSITIVE POWER				
			5,135,683				
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON						
	5,135,683						
10		AGC	REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)				
11	PERCENT OF CLASS	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9					
	17.3%						
10		C DE					
12	I YPE OF REPORTIN	G PE	RSON (SEE INSTRUCTIONS)				
	PN						

## Item 1(a). <u>Name of Issuer</u>:

AN2 Therapeutics, Inc. (the "Issuer")

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

1800 El Camino Real, Suite D, Menlo Park, California 94027

## Item 2(a). <u>Names of Persons Filing</u>:

The names of the persons filing this report (collectively, the "Reporting Persons") are: RA Capital Management, L.P. ("RA Capital") Peter Kolchinsky Rajeev Shah RA Capital Healthcare Fund, L.P. (the "Fund")

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

The address of the principal business office of each of the Reporting Persons is: c/o RA Capital Management, L.P., 200 Berkeley Street, 18<sup>th</sup> Floor, Boston MA 02116

## Item 2(c). <u>Citizenship</u>:

RA Capital is a Delaware limited partnership. Dr. Kolchinsky and Mr. Shah are United States citizens.

## Item 2(d). <u>Title of Class of Securities</u>:

Common Stock, \$0.00001 par value per share ("Common Stock")

## Item 2(e). <u>CUSIP Number</u>:

037326105

## 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:

Not applicable.

## Item 4. <u>Ownership</u>.

The information required by this item with respect to each Reporting Person is set forth in Rows 5 through 9 and 11 of the cover pages to this Schedule 13G/A. The ownership percentages reported are based on 29,741,445 total Common Stock shares, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 9, 2023.

The Fund directly holds 5,135,683 shares of Common Stock. RA Capital Nexus Fund II, L.P. (the "Nexus Fund II") holds 415,612 shares of Common Stock.

RA Capital Healthcare Fund GP, LLC is the general partner of the Fund and RA Capital Nexus Fund II GP, LLC is the general partner of the Nexus Fund II. 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 and the Nexus Fund II and may be deemed a beneficial owner, for purposes of Section 13(d) of the Securities Exchange Act of 1934 (the "Act"), of any securities of the Issuer held by the Fund and the Nexus Fund II. The Fund and the Nexus Fund II 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 II's portfolios, including the shares of the Issuer's Common Stock reported herein. Because the Fund and the Nexus Fund II 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 II disclaim beneficial ownership of the securities under 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 Schedule 13G/A Statement (the "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.

#### Item 5. <u>Ownership of Five Percent or Less of a Class</u>.

If this statement is being filed to report the fact that as of the date hereof the Reporting Persons have ceased to be the beneficial owner of more than five percent of the class of securities, check the following  $\Box$ .

## Item 6. <u>Ownership of More than Five Percent on Behalf of Another Person</u>.

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. <u>Identification and Classification of Members of the Group</u>.

Not applicable.

## Item 9. <u>Notice of Dissolution of Group</u>.

Not applicable.

#### Item 10. <u>Certification</u>.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a–11.

## <u>Exhibit List</u>

Exhibit 1: Joint filing agreement

## SIGNATURE

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

Date: February 14, 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 General Partner Its:

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

#### AGREEMENT

This Joint Filing Agreement, dated as of February 14, 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 \$0.00001 per share of AN2 Therapeutics, 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 KolchinskyTitle: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