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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No.)*

TScan Therapeutics, Inc. (Name of Issuer)

Common Stock, par value \$0.0001 per share (Title of Class of Securities)

89854M101 (CUSIP Number)

July 20, 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:

☐ 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 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).

	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
1	RA Capital Management, L.P.				
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				
	Delaware				
	NUMBER OF	5	SOLE VOTING POWER		
			0		
	SHARES	6	SHARED VOTING POWER		
	BENEFICIALLY		1,255,317		
	OWNED BY				
	EACH	7	SOLE DISPOSITIVE POWER		
	REPORTING		0		
	PERSON WITH:	8	SHARED DISPOSITIVE POWER		

9	AGGREGATE AMOUN	 NT BENEFIC	1,255,317 ALLY OWNED BY EACH REPORTING PERSON		
	1,255,317				
10					
- 44	4 DEDGENE OF GLASS DEPONSOR BY A MANUAL BY DOLLA				
11	1 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9				
	6.7%				
12	2 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)				
	IA, PN				
L					

	VI 70 07 PPD 2000 07 PPD 2010				
	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
	I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
1	Peter Kolchinsky				
2	CHEC	CK THE APPROPE	RIATE BOX	IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)	() F
					(a) 🗆
				(b) □	
3	SEC USE ONLY				
4	CITIZENSHIP OR PLACE OF ORGANIZATION				
-	CHIZENSHIP OR PLACE OF ORGANIZATION				
	United	d States of America	a		
-			5	SOLE VOTING POWER	
			э	SOLE VOTING POWER	
	NUN	MBER OF		0	
	SI	HARES	6	SHARED VOTING POWER	
	BENE	FICIALLY		1,255,317	
	DELTE	II ICH IEEI		1,200,017	
		NED BY			
	J	EACH	7	SOLE DISPOSITIVE POWER	
	REF	PORTING		0	
	KEFORTING				
		ERSON			
	1	WITH:	8	SHARED DISPOSITIVE POWER	
				1,255,317	
	9	AGGREGATE A	MOUNT BE	NEFICIALLY OWNED BY EACH REPORTING PERSON	
	1,255,317				
	10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) □				
-	11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9				
6.7%					
40 TWINE OF REPORTING PERSON (GET INSTRUCTIONS)					
	12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)				
	HC, IN				

	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
1	Rajeev Shah				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)				
	(a) □			(a) □ (b) □	
				(6)	
3	SEC USE ONLY				
4	CITIZENSHIP OR PLACE OF ORGANIZATION				
	United States of America				
		5	SOLE VOTING POWER		
	NUMBER OF		0		
	SHARES		SHARED VOTING POWER		
	BENEFICIALLY		1,255,317		
	OWNED BY				
	EACH	7	SOLE DISPOSITIVE POWER		
	REPORTING		0		
	PERSON WITH:	8	SHARED DISPOSITIVE POWER		
	WIIII.	0			
9	AGGREGATE AMOUN	 NT BENEFIC	1,255,317 CIALLY OWNED BY EACH REPORTING PERSON		
	1,255,317				
10					
11	PERCENT OF CLASS	REPRESEN'	FED BY AMOUNT IN ROW 9		
	6.7%				
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)				
	HC, IN				

	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
1	RA Capital Healthcare Fund, L.P.				
2	2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a)				
				(b) 🗆	
3	SEC USE ONLY				
4	4 CITIZENSHIP OR PLACE OF ORGANIZATION				
	Delaware				
		5	SOLE VOTING POWER		
	NUMBER OF		0		
	SHARES	6	SHARED VOTING POWER		
	BENEFICIALLY		1,101,579		
	OWNED BY				
	EACH	7	SOLE DISPOSITIVE POWER		
REPORTING 0					
PERSON					
	WITH:	8	SHARED DISPOSITIVE POWER		
9	1,101,579 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	1,101,579				
10					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9				
	5.9%				
42					
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)				
	PN				

Item 1(a). Name of Issuer:

TScan Therapeutics, Inc. (the "Issuer")

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

830 Winter Street, Waltham, Massachusetts 02451

Item 2(a). Names of Persons Filing:

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, 18th Floor, Boston MA 02116

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

RA Capital and the Fund are Delaware limited partnerships. Dr. Kolchinsky and Mr. Shah are United States citizens.

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

Common Stock, par value \$0.0001 per share ("Common Stock")

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

89854M101

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. Ownership.

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. The ownership percentages reported are based on 18,798,733 shares of Common Stock, as reported in the Issuer's Prospectus filed with the SEC on July 19, 2021.

The Fund directly holds 1,101,579 shares. RA Capital Nexus Fund II, L.P. (the "Nexus Fund II") holds 153,738 shares.

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 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 of the Issuer beneficially owned by RA Capital, Dr. Kolchinsky, and Mr. Shah disclaim beneficial ownership of the securities reported in this Schedule 13G 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. Ownership of Five Percent or Less of a Class.

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

Not applicable.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

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.

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: July 28, 2021

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 July 28, 2021, 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 TScan 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: <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