FORM 3

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

			UI	Section 30(II)	of the investment Compa	arry Act	JI 1940					
RA CAPITAL				e of Event ring Statemen n/Day/Year) 0/2021		3. Issuer Name <b>and</b> Ticker or Trading Symbol Eliem Therapeutics, Inc. [ ELYM ]						
(Last) (First) (Middle) 200 BERKELEY STREET, 18TH					Issuer	(Check all applicable)				5. If Amendment, Date of Original Filed (Month/Day/Year)		
FLOOR			_		Officer (give title below)		Other (specify below)		6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person X Form filed by More than One Reporting Person			
(Street) BOSTON MA 02116												
(City)	(State)	(Zip)										
			Table I - I	Non-Deriv	ative Securities Be	enefic	ially O	wned				
1. Title of Sec	curity (Instr. 4)	)			2. Amount of Securit Beneficially Owned ( 4)		3. Owner Form: I (D) or II (I) (Inst	Direct ndirect		ature of Indire ership (Instr.		
Common Stock					2,867,219 <sup>(2)</sup> I		See footnotes <sup>(2)(3)</sup>					
Common Stock					216,113 <sup>(6)</sup> I		[	See footnotes <sup>(3)(6)</sup>				
					ive Securities Ben rants, options, co				)			
4) Expir (Mon		2. Date Exerc Expiration D (Month/Day/	ate	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of		5. Ownership Form: Direct (D)	6. Nature of Indirect Beneficial Ownership (Instr. 5)			
		Date Exercisable	Expiration Date	Title		unt or per of es	nt or Derivati er of Security		or Indirect (I) (Instr. 5)	3)		
Series A Preferred Stock		(1)	(1)	Common Stock	2,63	9,507(2)	(1)		I	See footnotes <sup>(2)</sup>		
Series A-1 Preferred Stock		(1)	(1)	Common Stock	1,41	5,002(2)	(1)		I	See footnotes <sup>(2)</sup>		
Series B Preferred Stock			(1)	(1)	Common Stock	673	,076 <sup>(2)</sup>	(1)		I	See footnotes <sup>(2)</sup>	
Series A Preferred Stock		(1)	(1)	Common Stock	708	,333(4)	(1)		I	See footnotes <sup>(3)</sup>		
Series A-1 Preferred Stock		(1)	(1)	Common Stock	518	3,164 <sup>(4)</sup>			I	See footnotes <sup>(3)</sup>		
Series B Preferred Stock		(1)	(1)	Common Stock	288	38,461 <sup>(5)</sup>			I	See footnotes <sup>(3)</sup>		
Series A Preferred Stock		(1)	(1)	Common Stock	485	5,493 <sup>(6)</sup> (			I	See footnotes <sup>(3)</sup>		
Series A-1 Preferred Stock			(1)	(1)	Common Stock	139,481 <sup>(6)</sup>			I	See footnotes <sup>(3)</sup>		
1. Name and	Address of Rep	oorting Perso	on*									

RA CAPITAL MANAGEMENT, L.P.

(Last) (First) (Middle)
200 BERKELEY STREET, 18TH FLOOR

(Street)

BOSTON		
(City)	(State)	(Zip)
	dress of Reporting    Healthcare	
(Last)	(First)	(Middle)
	LEY STREET, 1	· ·
Street) BOSTON	MA	02116
(City)	(State)	(Zip)
	dress of Reporting l Nexus Fund	
(Last)	(First)	(Middle)
	PITAL MANAG LEY STREET, 1	
Street) BOSTON	MA	02116
(City)	(State)	(Zip)
Name and Ad	drace of Danortina	Percon*
RA Capita	dress of Reporting  I Nexus Fund  (First)	<u>l II, L.P.</u>
RA Capita (Last) C/O RA CAF		(Middle) EMENT, L.P.
RA Capita (Last) C/O RA CAF	(First)	(Middle) EMENT, L.P.
(Last) C/O RA CAF 200 BERKEI	(First) PITAL MANAG LEY STREET, 1	(Middle) EMENT, L.P. 8TH FLOOR
(Last) (C/O RA CAF 200 BERKEI Street) BOSTON (City)	(First) PITAL MANAG LEY STREET, 1  MA  (State)  dress of Reporting	(Middle) EMENT, L.P. 8TH FLOOR  02116  (Zip)
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(Last) (CO RA CAF 200 BERKEI Street) BOSTON (City)  Name and Ad Kolchinsky (Last) C/O RA CAF 200 BERKEI Street) BOSTON (City)  Name and Ad Shah Rajee (Last) (C/O RA CAF	(First) PITAL MANAG LEY STREET, 1  MA  (State) dress of Reporting y Peter  (First) PITAL MANAG LEY STREET, 1  MA  (State) dress of Reporting y Peter	(Middle) EMENT, L.P. 8TH FLOOR  02116  (Zip) Person*  (Middle) EMENT, L.P. 8TH FLOOR  02116  (Zip) Person*

(City) (State)	(Zip)
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### **Explanation of Responses:**

- 1. Each share of Series A Preferred Stock, Series A-1 Preferred Stock and Series B Preferred Stock (collectively, the "Preferred Stock") is convertible at the option of the holder and will automatically convert into one share of Common Stock of the Issuer upon the closing of the Issuer's initial public offering. The Preferred Stock has no expiration date.
- 2. Shares held directly by RA Capital Healthcare Fund, L.P. (the "Fund").
- 3. RA Capital Management, L.P. (the "Adviser") is the investment manager for the Fund, RA Capital Nexus Fund, L.P. (the "Nexus Fund"), RA Capital Nexus Fund II, L.P. (the "Nexus Fund II") and a separately managed account (the "Account"). The general partner of the Adviser is RA Capital Management GP, LLC (the "Adviser GP"), of which Dr. Peter Kolchinsky and Mr. Rajeev Shah are the managing members. The Adviser, the Adviser GP, Dr. Kolchinsky, and Mr. Shah disclaim beneficial ownership of any of the reported securities, except to the extent of their pecuniary interest therein.
- 4. Shares held directly by the Nexus Fund.
- 5. Shares held directly by the Nexus Fund II.
- 6. Shares held directly by the Account.

#### Remarks:

Andrew Levin, a Managing Director of the Adviser, serves on the Issuer's board of directors.

/s/ Peter Kolchinsky, Manager of RA Capital 08/09/2021 Management, L.P. /s/ Peter Kolchinsky, Manager of RA Capital Healthcare Fund GP, LLC 08/09/2021 the General Partner of RA Capital Healthcare Fund, L.P. /s/ Peter Kolchinsky, Manager of RA Capital Nexus Fund GP, LLC the 08/09/2021 General Partner of RA Capital Nexus Fund, L.P. /s/ Peter Kolchinsky, Manager of RA Capital Nexus Fund II GP, LLC 08/09/2021 the General Partner of RA Capital Nexus Fund II, L.P. /s/ Peter Kolchinsky, 08/09/2021 <u>individually</u> /s/ Rajeev Shah, 08/09/2021 <u>individually</u> \*\* Signature of Reporting Date Person

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- \* If the form is filed by more than one reporting person, see Instruction 5 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.