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

# **SCHEDULE 13D**

(Rule 13d-102)

# INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULE 13d-l(a) AND AMENDMENTS THERETO FILED PURSUANT TO RULE 13d-2(a)

(Amendment No. 5)\*

Aprea Therapeutics, Inc.
(Name of Issuer)
Common Stock, par value \$0.001 per share
(Title of Class of Securities)
03836J102
(CUSIP Number)
Rebecca Lucia
5AM Venture Management, LLC
501 2 <sup>nd</sup> Street, Suite 350
San Francisco, CA 94107
(415) 993-8565
(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)
February 11, 2021
(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. $\square$
* 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.

1.

Name of Reporting Persons

Securities and Exchange Commission on November 6, 2020.

5AM Ventures IV, L.P.

		ppropriate	e Box if a Member of a Group (see instructions)	
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4. So	ource of Fu	unds (see i	instructions)	
W	/C			
5. Cl	heck if Dis	sclosure of	f Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)	
6. Ci	itizenship	or Place o	f Organization	
D	elaware			
		7.	Sole Voting Power	
			0	
Numbe		8.	Shared Voting Power	
Shar Benefic	cially		594,392 shares of common stock (2)	
Owned Eac	h	9.	Sole Dispositive Power	
Repor Person			0	
		10.	Shared Dispositive Power	
			594,392 shares of common stock (2)	
			eneficially Owned by Each Reporting Person mmon stock (2)	
12. CI	heck if the	Aggregat	te Amount in Row (11) Excludes Certain Shares (see instructions)	
	ercent of C 8% (3)	Class Repro	esented by Amount in Row 11	
14. Ty	ype of Rep	orting Per	rson (see instructions)	
Pì	N			
Co-Inves Diekman Investors expressly (2) These sha authority	tors IV"), ("Diekma IV, 5AM of disclaim sares are he over the si	5AM Opp n''), Andro Opportuni status as a old by 5AM hares held	y 5AM Partners IV, LLC ("5AM Partners IV"), 5AM Ventures IV, L.P. ("5AM IV"), 5AM Co-Investors IV, I portunities I, L.P. ("5AM Opportunities"), 5AM Opportunities I (GP), LLC ("5AM Opportunities GP"), Dr. J. Schwab ("Schwab") and Dr. Scott M. Rocklage ("Rocklage" and, with 5AM Partners IV, 5AM IV, 5AI ities, 5AM Opportunities GP, Diekman and Schwab, collectively, the "Reporting Persons"). The Reporting Fi "group" for purposes of this Schedule 13D.  M IV. Diekman, Schwab and Rocklage, as Managing Members of 5AM Partners IV, share voting and investrated by 5AM IV.  827 shares of Common Stock outstanding as of November 6, 2020 as disclosed in the Issuer's Form 10-Q file	ohn D. M Co- Persons ment

1.	Name of Re	porting P	Persons					
	5AM Co-Investors IV, L.P.							
2.	Check the Appropriate Box if a Member of a Group (see instructions)							
2.	(a)	te Box if a Member of a Group (see instructions)						
	(b)							
3.	SEC USE O	NLY						
4.	Source of Fu	ınds (see	instructions)					
	WC							
5.	Check if Dis	sclosure o	of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)					
6.	Citizenship	or Place	of Organization					
	Delaware							
		7.	Sole Voting Power					
			0					
			U .					
N	umber of	8.	Shared Voting Power					
	Shares		24,765 shares of common stock (2)					
	neficially wned by							
O	Each	9.	Sole Dispositive Power					
	eporting		0					
Pe	rson With							
		10.	Shared Dispositive Power					
			24,765 shares of common stock (2)					
11.	Aggregate A	Amount E	Beneficially Owned by Each Reporting Person					
	24,765 shar	es of con	nmon stock (2)					
12.	Check if the	Aggrega	ate Amount in Row (11) Excludes Certain Shares (see instructions)					
13.	Percent of C	lass Rep	resented by Amount in Row 11					
		•						
	0.1% (3)							
14.	Type of Rep	orting Pe	erson (see instructions)					
	PN							

<sup>(2)</sup> These shares are held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as Managing Members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM Co-Investors IV.

<sup>(3)</sup> Percentage based on 21,186,827 shares of Common Stock outstanding as of November 6, 2020 as disclosed in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 6, 2020.

1.	Name of Rep	porting P	Persons				
	5AM Partne	ers IV, L	LC				
2.	Check the A	ppropriat	te Box if a Member of a Group (see instructions)				
	(a)						
3.	(b) x(1) 3. SEC USE ONLY						
4.	Source of Fu	ınds (see	instructions)				
	AF						
5.	Check if Dis	closure c	of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)				
6.	Citizenship o	or Place o	of Organization				
	Delaware						
		7.	Sole Voting Power				
			0				
N	umber of	8.	Shared Voting Power				
В	Shares eneficially		619,157 shares of common stock (2)				
C	Owned by Each	9.	Sole Dispositive Power				
	Reporting erson With		0				
		10.	Shared Dispositive Power				
			619,157 shares of common stock (2)				
11.	Aggregate A	mount B	Beneficially Owned by Each Reporting Person				
	619,157 sha	res of co	ommon stock (2)				
12.	Check if the	Aggrega	ate Amount in Row (11) Excludes Certain Shares (see instructions)				
13.	Percent of C	lass Repi	resented by Amount in Row 11				
	2.9% (3)						
14.	Type of Rep	orting Pe	erson (see instructions)				
	OO						

<sup>(2)</sup> Includes (i) 594,392 shares held by 5AM IV; and (ii) 24,765 shares held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as Managing Members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.

<sup>(3)</sup> Percentage based on 21,186,827 shares of Common Stock outstanding as of November 6, 2020 as disclosed in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 6, 2020.

1. Name of F	Reporting Persons	
5AM Opp	portunities I, L.P.	
2. Check the	Appropriate Box if a Member of a Group (see instructions)	
(a) (b)		□ x(1)
3. SEC USE	ONLY	(1)
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	Funds (see instructions)	
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5. Check if I	Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)	
6. Citizenshi	p or Place of Organization	
Delaware		
	7. Sole Voting Power	
	0	
Number of	8. Shared Voting Power	
Shares Beneficially	0	
Owned by Each	9. Sole Dispositive Power	
Reporting	0	
Person With		
	10. Shared Dispositive Power	
	0	
11. Aggregate	Amount Beneficially Owned by Each Reporting Person	
0		
12. Check if the	he Aggregate Amount in Row (11) Excludes Certain Shares (see instructions)	
13. Percent of	Class Represented by Amount in Row 11	
0		
14. Type of Ro	eporting Person (see instructions)	
PN		
111		
1) This Schedule 13	D is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for pu	irposes of this Schedule 13D

1. Name of R	eporting Persons	
5AM Opp	ortunities I (GP), LLC	
2. Check the	Appropriate Box if a Member of a Group (see instructions)	
(a) (b)		□ x(1)
3. SEC USE	ONLY	X(1)
4. Source of I	Funds (see instructions)	
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5. Check if D	isclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)	
6. Citizenship	or Place of Organization	
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Delaware		
	7. Sole Voting Power	
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Number of	8. Shared Voting Power	
Shares Beneficially	0	
Owned by	9. Sole Dispositive Power	
Each Reporting		
Person With	0	
	10. Shared Dispositive Power	
	0	
11. Aggregate	Amount Beneficially Owned by Each Reporting Person	
0		
12. Check if th	e Aggregate Amount in Row (11) Excludes Certain Shares (see instructions)	
	Class Represented by Amount in Row 11	
0		
14. Type of Re	porting Person (see instructions)	
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1) This Cal- 1-1- 121	Die Slad by the Depositing Degrang. The Depositing Degrang arranged Lie Leine states as " " " " " " " " " " " " " " " " " "	numagas af this Calcadal 127
1) This Schedule 131	D is filed by the Reporting Persons. The Reporting Persons expressly disclaim status as a "group" for p	uiposes of this Schedule 13L

1.	Name of Re	porting P	Persons					
	Dr. John D. Diekman							
2.	Check the Appropriate Box if a Member of a Group (see instructions)							
	(a)							
3.	(b) x(1) 3. SEC USE ONLY							
4.	Source of F	unds (see	instructions)					
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5.	Check if Di	sclosure o	of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)					
6.	Citizenship	or Place	of Organization					
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N	umber of	8.	Shared Voting Power					
В	Shares eneficially		619,157 shares of common stock (2)					
C	Owned by Each	9.	Sole Dispositive Power					
	Reporting		0					
Pe	rson With							
		10.	Shared Dispositive Power					
			619,157 shares of common stock (2)					
11.	Aggregate A	Amount E	Beneficially Owned by Each Reporting Person					
	619,157 sha	ares of co	ommon stock (2)					
12.	Check if the	Aggrega	ate Amount in Row (11) Excludes Certain Shares (see instructions)					
13.	Percent of C	Class Rep	resented by Amount in Row 11					
	2.9% (3)							
14.	Type of Rep	orting Pe	erson (see instructions)					
	IN							

<sup>(2)</sup> Includes (i) 594,392 shares held by 5AM IV; and (ii) 24,765 shares held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as Managing Members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.

<sup>(3)</sup> Percentage based on 21,186,827 shares of Common Stock outstanding as of November 6, 2020 as disclosed in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 6, 2020.

1.	Name of Re	porting P	Persons					
	Andrew J. Schwab							
2.	Check the Appropriate Box if a Member of a Group (see instructions)							
	(a) (b)			□ x(1)				
3.	SEC USE C	NLY		Λ(1)				
4.	Source of F	ınds (see	e instructions)					
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6.	Citizenship	or Place	of Organization					
	United State	es						
		7.	Sole Voting Power					
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N	umber of	8.	Shared Voting Power					
	Shares eneficially		619,157 shares of common stock (2)					
	wned by	9.	Sole Dispositive Power					
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	rson With		0					
		10.	Shared Dispositive Power					
			619,157 shares of common stock (2)					
11.	Aggregate A	Amount E	Beneficially Owned by Each Reporting Person					
	619,157 sha	ares of co	ommon stock (2)					
12.	Check if the	Aggrega	ate Amount in Row (11) Excludes Certain Shares (see instructions)					
13.	Percent of C	lass Rep	resented by Amount in Row 11					
	2.9% (3)							
14.	Type of Rep	orting Pe	erson (see instructions)					
	IN							

<sup>(2)</sup> Includes (i) 594,392 shares held by 5AM IV; and (ii) 24,765 shares held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as Managing Members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.

<sup>(3)</sup> Percentage based on 21,186,827 shares of Common Stock outstanding as of November 6, 2020 as disclosed in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 6, 2020.

1.	Name of Re	porting P	Persons					
	Dr. Scott M. Rocklage							
2.	Check the Appropriate Box if a Member of a Group (see instructions)							
	(a)		. ` '	□ x(1)				
3.	SEC USE O	NLY						
4.	Source of Fi	unds (see	instructions)					
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5.	Check if Dis	sclosure o	of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e)					
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		7.	Sole Voting Power					
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N	umber of	8.	Shared Voting Power					
	Shares		619,157 shares of common stock (2)					
	eneficially wned by		017,127 Shares 01 Common stock (2)					
O	Each	9.	Sole Dispositive Power					
	eporting		0					
Pe	rson With							
		10.	Shared Dispositive Power					
			619,157 shares of common stock (2)					
11.	Aggregate A	Amount B	Beneficially Owned by Each Reporting Person					
	619,157 sha	ares of co	ommon stock (2)					
12.	Check if the	Aggrega	ate Amount in Row (11) Excludes Certain Shares (see instructions)					
13.	Percent of C	lass Reni	resented by Amount in Row 11					
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	2.9% (3)							
14.	Type of Rep	orting Pe	erson (see instructions)					
	IN							

<sup>(2)</sup> Includes (i) 594,392 shares held by 5AM IV; and (ii) 24,765 shares held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as Managing Members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.

<sup>(3)</sup> Percentage based on 21,186,827 shares of Common Stock outstanding as of November 6, 2020 as disclosed in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 6, 2020.

Explanatory Note: This Amendment No. 5 (the "Amendment"), which amends the Schedule 13D filed with the Securities and Exchange Commission (the "SEC") on October 17, 2019, as amended by Amendment No. 1 filed May 22, 2020, as amended by Amendment No. 2 filed June 11, 2020, as amended by Amendment No. 3 filed October 7, 2020 and as amended by Amendment No. 4 filed on November 18, 2020 (the "Original Schedule 13D") is being filed on behalf of 5AM Partners IV, LLC ("5AM Partners IV"), 5AM Ventures IV, L.P. ("5AM IV"), 5AM Co-Investors IV, L.P. ("5AM Co-Investors IV"), 5AM Opportunities I, L.P. ("5AM Opportunities"), 5AM Opportunities I (GP), LLC ("5AM Opportunities GP"), Dr. John D. Diekman ("Diekman"), Andrew J. Schwab ("Schwab") and Dr. Scott M. Rocklage ("Rocklage" and, with 5AM Partners IV, 5AM IV, Co-Investors IV, 5AM Opportunities, 5AM Opportunities GP, Diekman and Schwab, collectively, the "Reporting Persons") in respect of the Common Stock, \$0.001 par value per share of Aprea Therapeutics, Inc., a Delaware corporation (the "Issuer"). This Amendment is being filed by the Reporting Persons to report open market sales of Common Stock on February 11, 2021. Accordingly, the number of securities beneficially owned by the Reporting Persons has decreased as described in Items 4 and 5 below.

Item 4 and 5 of the Original Schedule 13D are hereby amended and supplemented to the extent hereinafter expressly set forth and, except as amended and supplemented hereby, the Original Schedule 13D remains in full force and effect. All capitalized terms used in this Amendment but not defined herein shall have the meanings ascribed thereto in the Original Schedule 13D.

#### Item 4. Purpose of Transaction

Item 4 of the Original Schedule 13D is hereby amended and supplemented by adding the following paragraphs at the end of Item 4:

On February 3, 2021, 5AM Opportunities sold an aggregate of 138,497 shares of Common Stock in an open market transaction at a price of \$7.01 per share.

On February 11, 2021, 5AM IV sold an aggregate of 595,200 shares of Common Stock in an open market transaction at a price of \$8.00 per share and 5AM Co-Investors IV sold an aggregate of 24,800 shares of Common Stock in an open market transaction at a price of \$8.00 per share.

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

Item 5 of the Original Schedule 13D is hereby amended and restated in its entirety as follows:

(a) — (b). The following information with respect to the ownership of the Common Stock of the Issuer by the persons filing this statement on Schedule 13D is provided as of February 16, 2021:

Reporting Persons	Shares Held Directly	Sole Voting Power	Shared Voting Power(1)	Sole Dispositive Power	Shared Dispositive Power (1)	Beneficial Ownership	Percentage of Class (2)
5AM IV	594,392	0	594,392	0	594,392	594,392	2.8%
5AM Co-Investors IV	24,765	0	24,765	0	24,765	24,765	0.1%
5AM Partners IV (1)	0	0	619,157	0	619,157	619,157	2.9%
5AM Opportunities	0	0	0	0	0	0	0.0%
5AM Opportunities GP	0	0	0	0	0	0	0.0%
Diekman (1)	0	0	619,157	0	619,157	619,157	2.9%
Schwab (1)	0	0	619,157	0	619,157	619,157	2.9%
Rocklage (1)	0	0	619,157	0	619,157	619,157	2.9%

<sup>(1)</sup> Includes 594,392 shares of Common Stock held by 5AM IV and 24,765 shares of Common Stock held by 5AM Co-Investors IV. Diekman, Schwab and Rocklage, as Managing Members of 5AM Partners IV, share voting and investment authority over the shares held by 5AM IV and 5AM Co-Investors IV.

<sup>(2)</sup> Percentage based on 21,186,827 shares of Common Stock outstanding as of November 6, 2020 as disclosed in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 6, 2020.

<sup>(</sup>c) Except as set forth herein, none of the Reporting Persons has effected any transactions in shares of the Issuer's Common Stock during the last 60 days.

<sup>(</sup>d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, the shares of Common Stock beneficially owned by any of the Reporting Persons.

<sup>(</sup>e) The Reporting Persons ceased to be the beneficial owners of more than five percent of the Common Stock on February 11, 2021.

#### **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.

Date: February 16, 2021

#### 5AM Ventures IV, L.P.

By: 5AM Partners IV, LLC,

Its General Partner

By: /s/ Andrew J. Schwab

Andrew J. Schwab Managing Member

### 5AM Co-Investors IV, L.P.

By: 5AM Partners IV, LLC,

Its General Partner

By: /s/ Andrew J. Schwab

Andrew J. Schwab Managing Member

#### 5AM Partners IV, LLC

By: /s/ Andrew J. Schwab

Andrew J. Schwab Managing Member

# 5AM Opportunities I, L.P.

By: 5AM Opportunities I (GP), LLC,

Its General Partner

By: /s/ Andrew J. Schwab

Andrew J. Schwab Managing Member

# 5AM Opportunities I (GP), LLC

By: /s/ Andrew J. Schwab

Andrew J. Schwab Managing Member

#### DR. JOHN D. DIEKMAN

By: /s/ Dr. John D. Diekman

Dr. John D. Diekman

# ANDREW J. SCHWAB

By: /s/ Andrew J. Schwab

Andrew J. Schwab

#### DR. SCOTT M. ROCKLAGE

By: /s/ Dr. Scott M. Rocklage

Dr. Scott M. Rocklage