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

**SCHEDULE 13G**  
(Amendment No. 4)

UNDER THE SECURITIES EXCHANGE ACT OF 1934

**APPLIED THERAPEUTICS, INC.**

(Name of Issuer)

**COMMON STOCK, \$0.0001 PAR VALUE PER SHARE**

(Title of Class of Securities)

**03828A101**

(CUSIP Number)

**June 27, 2022**

(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).

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1. Name of Reporting Persons	
Alexandria Real Estate Equities, Inc.	
2. Check the Appropriate Box if a Member of a Group (See Instructions)	
(a) <input type="checkbox"/>	
(b) <input checked="" type="checkbox"/>	
3. SEC USE ONLY	
4. Citizenship or Place of Organization	
Maryland	
	5. Sole Voting Power
Number of Shares	0
	6. Shared Voting Power
Beneficially Owned by Each Reporting Person With:	12,969,054 (1) (3)
	7. Sole Dispositive Power
	0
	8. Shared Dispositive Power
	13,434,054 (2) (3)
9. Aggregate Amount Beneficially Owned by Each Reporting Person	
13,434,054 (2) (3)	
10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
11. Percent of Class Represented by Amount in Row (9)	
19.9% (3) (4)	
12. Type of Reporting Person (See Instructions)	
CO	

- (1) Consists of: (i) 4,090,077 shares of the Issuer's common stock held by Alexandria Venture Investments, LLC ("AVI"); (ii) 885,000 shares of the Issuer's common stock issuable upon exercise of pre-funded warrants ("Pre-Funded Warrants") held directly by AVI that are currently exercisable; (iii) 2,950,000 shares of the Issuer's common stock issuable upon exercise of common stock warrants (the "Common Stock Warrants" and, collectively with the Pre-Funded Warrants, the "Warrants") held directly by AVI that are currently exercisable; (iv) 2,378,977 shares of the Issuer's common stock held directly by Alexandria Equities No. 7, LLC ("AE7"); (v) 615,000 shares of the Issuer's common stock issuable upon exercise of Pre-Funded Warrants held directly by AE7 that are currently exercisable; and (vi) 2,050,000 shares of the Issuer's common stock issuable upon exercise of Common Stock Warrants held directly by AE7 that are currently exercisable. Each of AVI and AE7 are indirect, wholly-owned subsidiaries of Alexandria Real Estate Equities, Inc. ("ARE") and, accordingly, ARE may be deemed to share voting and dispositive power with AVI and AE7 with respect to the shares reported herein.
- (2) Consists of: (i) 4,555,077 shares of the Issuer's common stock held by AVI; (ii) 885,000 shares of the Issuer's common stock issuable upon exercise of Pre-Funded Warrants held directly by AVI that are currently exercisable; (iii) 2,950,000 shares of the Issuer's common stock issuable upon exercise of Common Stock Warrants held directly by AVI that are currently exercisable; (iv) 2,378,977 shares of the Issuer's common stock held directly by AE7; (v) 615,000 shares of the Issuer's common stock issuable upon exercise of Pre-Funded Warrants held directly by AE7 that are currently exercisable; and (vi) 2,050,000 shares of the Issuer's common stock issuable upon exercise of Common Stock Warrants held directly by AE7 that are currently exercisable. Each of AVI and AE7 are indirect, wholly-owned subsidiaries of ARE and, accordingly, ARE may be deemed to share voting and dispositive power with AVI and AE7 with respect to the shares reported herein.
- (3) The share numbers set forth in footnotes (1) and (2) represent the maximum number of shares issuable upon exercise of the Warrants held by the Reporting Persons as a result of the beneficial ownership provision described in the following sentence. Under the terms of the Warrants, the Warrants may not be exercised to the extent such exercise would cause the holder (together with its affiliates, any other persons acting as a group together with the holder or any of the holder's affiliates, and any other persons whose beneficial ownership of the Issuer's common stock would or could be aggregated with the holder's for purposes of Section 13(d) or Section 16 of the Securities Exchange Act of 1934, as amended) to beneficially own more than 19.99% of the Issuer's common stock outstanding immediately after giving effect to such exercise.
- (4) This percentage is calculated based upon 46,215,514 outstanding shares of the Issuer's common stock as of June 27, 2022, as set forth in the Issuer's final prospectus supplement filed with the Securities and Exchange Commission on filed with the SEC on June 24, 2022, as adjusted in accordance with Rule 13d-3 promulgated under the Securities Exchange Act, as amended, taking into account the exercise limitations described in footnote (3).

1. Name of Reporting Persons	
Alexandria Venture Investments, LLC	
2. Check the Appropriate Box if a Member of a Group (See Instructions)	
(a) <input type="checkbox"/>	
(b) <input checked="" type="checkbox"/>	
3. SEC USE ONLY	
4. Citizenship or Place of Organization	
Delaware	
	5. Sole Voting Power
Number of Shares	0
	6. Shared Voting Power
Beneficially Owned by Each Reporting Person With:	7,925,077 (1) (3)
	7. Sole Dispositive Power
	0
	8. Shared Dispositive Power
	8,390,077 (2) (3)
9. Aggregate Amount Beneficially Owned by Each Reporting Person	
8,390,077 (2) (3)	
10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
11. Percent of Class Represented by Amount in Row (9)	
16.8% (4)	
12. Type of Reporting Person (See Instructions)	
OO	

- (1) Consists of: (i) 4,090,077 shares of the Issuer's common stock held by AVI; (ii) 885,000 shares of the Issuer's common stock issuable upon exercise of Pre-Funded Warrants held directly by AVI that are currently exercisable; and (iii) 2,950,000 shares of the Issuer's common stock issuable upon exercise of Common Stock Warrants held directly by AVI that are currently exercisable.
- (2) Consists of: (i) 4,555,077 shares of the Issuer's common stock held by AVI; (ii) 885,000 shares of the Issuer's common stock issuable upon exercise of Pre-Funded Warrants held directly by AVI that are currently exercisable; and (iii) 2,950,000 shares of the Issuer's common stock issuable upon exercise of Common Stock Warrants held directly by AVI that are currently exercisable.
- (3) The share numbers set forth in footnotes (1) and (2) represent the maximum number of shares issuable upon exercise of the Warrants held by AVI as a result of the beneficial ownership provision described in the following sentence. Under the terms of the Warrants, the Warrants may not be exercised to the extent such exercise would cause the holder (together with its affiliates, any other persons acting as a group together with the holder or any of the holder's affiliates, and any other persons whose beneficial ownership of the Issuer's common stock would or could be aggregated with the holder's for purposes of Section 13(d) or Section 16 of the Securities Exchange Act of 1934, as amended) to beneficially own more than 19.99% of the Issuer's common stock outstanding immediately after giving effect to such exercise.
- (4) This percentage is calculated based upon 46,215,514 outstanding shares of the Issuer's common stock as of June 27, 2022, as set forth in the Issuer's final prospectus supplement filed with the Securities and Exchange Commission on filed with the SEC on June 24, 2022, as adjusted in accordance with Rule 13d-3 promulgated under the Securities Exchange Act, as amended, without giving effect to the exercise limitations described in footnote (3).

1. Name of Reporting Persons	
Alexandria Equities No. 7, LLC	
2. Check the Appropriate Box if a Member of a Group (See Instructions)	
(a) <input type="checkbox"/>	
(b) <input checked="" type="checkbox"/>	
3. SEC USE ONLY	
4. Citizenship or Place of Organization	
Delaware	
	5. Sole Voting Power
	0
Number of Shares	6. Shared Voting Power
Beneficially Owned by Each Reporting Person With:	5,043,977 (1) (2)
	7. Sole Dispositive Power
	0
	8. Shared Dispositive Power
	5,043,977 (1) (2)
9. Aggregate Amount Beneficially Owned by Each Reporting Person	
5,043,977 (1) (2)	
10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
11. Percent of Class Represented by Amount in Row (9)	
10.3% (3)	
12. Type of Reporting Person (See Instructions)	
OO	

- (1) Consists of: (i) 2,378,977 shares of the Issuer's common stock held directly by AE7; (ii) 615,000 shares of the Issuer's common stock issuable upon exercise of Pre-Funded Warrants held directly by AE7 that are currently exercisable; and (iii) 2,050,000 shares of the Issuer's common stock issuable upon exercise of Common Stock Warrants held directly by AE7 that are currently exercisable.
- (2) The share numbers set forth in footnote (1) represent the maximum number of shares issuable upon exercise of the Warrants held by AE7 as a result of the beneficial ownership provision described in the following sentence. Under the terms of the Warrants, the Warrants may not be exercised to the extent such exercise would cause the holder (together with its affiliates, any other persons acting as a group together with the holder or any of the holder's affiliates, and any other persons whose beneficial ownership of the Issuer's common stock would or could be aggregated with the holder's for purposes of Section 13(d) or Section 16 of the Securities Exchange Act of 1934, as amended) to beneficially own more than 19.99% of the Issuer's common stock outstanding immediately after giving effect to such exercise.
- (3) This percentage is calculated based upon 46,215,514 outstanding shares of the Issuer's common stock as of June 27, 2022, as set forth in the Issuer's final prospectus supplement filed with the Securities and Exchange Commission on filed with the SEC on June 24, 2022, as adjusted in accordance with Rule 13d-3 promulgated under the Securities Exchange Act, as amended, without giving effect to the exercise limitations described in footnote (2).

Item 1(a) Name of Issuer

Applied Therapeutics, Inc.

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

545 5<sup>th</sup> Avenue, Suite 1400  
New York, New York 10017

Item 2(a) Name of Person Filing

This Statement on Schedule 13G has been filed on behalf of the following persons (each, a "Reporting Person" and collectively, the "Reporting Persons"):

- (1) Alexandria Real Estate Equities, Inc.
- (2) Alexandria Venture Investments, LLC
- (3) Alexandria Equities No. 7, LLC

Item 2(b) Address of Principal Business Office or, if none, Residence

The address of each of the Reporting Persons is:

26 North Euclid Avenue  
Pasadena, California 91101

Item 2(c) Citizenship

- (1) Alexandria Real Estate Equities, Inc. is incorporated in the State of Maryland
- (2) Alexandria Venture Investments, LLC is organized in the State of Delaware
- (3) Alexandria Equities No. 7, LLC is organized in the State of Delaware

Item 2(d) Title of Class of Securities

Common stock, \$0.0001 par value per share

Item 2(e) CUSIP Number

03828A101

Item 3

Not applicable.

Item 4 Ownership

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1

- (a) Amount beneficially owned: See Row 9 of pages 2, 3, and 4
  - (b) Percent of class: See Row 11 of pages 2, 3, and 4
  - (c) Number of shares as to which the person has:
    - (i) Sole power to vote or to direct the vote: See Row 5 of pages 2, 3, and 4
    - (ii) Shared power to vote or to direct the vote: See Row 6 of pages 2, 3, and 4
    - (iii) Sole power to dispose or to direct the disposition of: See Row 7 of pages 2, 3, and 4
    - (iv) Shared power to dispose or to direct the disposition of: See Row 8 of pages 2, 3, and 4
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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 person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following.

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

Each of Alexandria Venture Investments, LLC and Alexandria Equities No. 7, LLC is the wholly owned subsidiary of Alexandria Real Estate Equities, Inc., which has the exclusive power to vote and dispose of shares directly owned by these subsidiaries.

Item 8      Identification and Classification of Members of the Group

The Reporting Persons are filing this Schedule 13G jointly, but not as members of a group, and each expressly disclaims membership in a group.

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.

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**SIGNATURE**

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: June 29, 2022

**ALEXANDRIA REAL ESTATE EQUITIES, INC.**

By: /s/ Dean A. Shigenaga

Name: Dean A. Shigenaga

Title: President and Chief Financial Officer

**ALEXANDRIA EQUITIES NO. 7, LLC**

By: ARE-Special Services, LLC, a Delaware limited liability company,  
managing member

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P., a Delaware  
limited partnership, managing member

By: ARE-QRS CORP., a Maryland corporation, general partner

By: Alexandria Real Estate Equities, Inc., a Maryland corporation,  
sole shareholder

By: /s/ Dean A. Shigenaga

Name: Dean A. Shigenaga

Title: President and Chief Financial Officer

**ALEXANDRIA VENTURE INVESTMENTS, LLC**

By: Alexandria Real Estate Equities, Inc., a Maryland corporation, managing  
member

By: /s/ Dean A. Shigenaga

Name: Dean A. Shigenaga

Title: President and Chief Financial Officer

**EXHIBITS**

A: Joint Filing Agreement

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EXHIBIT A

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned agree to the joint filing on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Common Stock of Applied Therapeutics Inc. and further agree that this agreement be included as an exhibit to such filing. Each party to the agreement expressly authorizes each other party to file on its behalf any and all amendments to such statement. Each party to this agreement agrees that this joint filing agreement may be signed in counterparts.

In evidence whereof, the undersigned have caused this Agreement to be executed on their behalf this 29<sup>th</sup> day of June, 2022.

**ALEXANDRIA REAL ESTATE EQUITIES, INC.**

By: /s/ Dean A. Shigenaga

Name: Dean A. Shigenaga

Title: President and Chief Financial Officer

**ALEXANDRIA EQUITIES NO. 7, LLC**

By: ARE-Special Services, LLC, a Delaware limited liability company, managing member

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P., a Delaware limited partnership, managing member

By: ARE-QRS CORP., a Maryland corporation, general partner

By: Alexandria Real Estate Equities, Inc., a Maryland corporation, sole shareholder

By: /s/ Dean A. Shigenaga

Name: Dean A. Shigenaga

Title: President and Chief Financial Officer

**ALEXANDRIA VENTURE INVESTMENTS, LLC**

By: Alexandria Real Estate Equities, Inc., a Maryland corporation, managing member

By: /s/ Dean A. Shigenaga

Name: Dean A. Shigenaga

Title: President and Chief Financial Officer

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