

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

SCHEDULE 13D

Under the Securities Exchange Act of 1934

APPLIED THERAPEUTICS, INC.

(Name of Issuer)

COMMON STOCK, PAR VALUE \$0.0001 PER SHARE

(Title of Class of Securities)

03828A 101

(CUSIP Number)

**Shoshana Shendelman
Applied Therapeutics, Inc.
340 Madison Avenue, 19th Floor
New York, New York 10173
Telephone: (212) 220-9226**

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

May 16, 2019

(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 o.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* 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 (however, see the Notes).

1. Names of Reporting Persons
Shoshana Shendelman

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Source of Funds (See Instructions)
PF

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

6. Citizenship or Place of Organization
United States of America

7. Sole Voting Power
4,522,621⁽¹⁾

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

8. Shared Voting Power
1,270,717⁽²⁾

9. Sole Dispositive Power
4,522,621⁽¹⁾

10. Shared Dispositive Power
1,270,717⁽²⁾

11. Aggregate Amount Beneficially Owned by Each Reporting Person
5,793,338

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13. Percent of Class Represented by Amount in Row (11)
32.4%⁽³⁾

14. Type of Reporting Person (See Instructions)
IN

- (1) Includes (a) 88,397 shares held by Clearpoint Strategy Group LLC, of which Dr. Shendelman is the sole owner, and (b) 828,562 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days of May 28, 2019.
- (2) Represents 1,270,717 shares held by Sycamore Family I LLC, of which Dr. Shendelman's spouse, Vladamir Shendelman, is the sole manager. Notwithstanding the foregoing, Dr. Shendelman disclaims beneficial ownership of shares held by Sycamore Family I LLC.
- (3) Based upon 17,052,202 shares of common stock outstanding as of May 16, 2019, as reported in the Issuer's Registration Statement on Form S-1 (the "**Prospectus**") filed with the Securities and Exchange Commission on May 14, 2019. See also footnote 1 above.

1. Names of Reporting Persons
Sycamore Family I LLC

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Source of Funds (See Instructions)
NA

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

6. Citizenship or Place of Organization
Delaware

7. Sole Voting Power
0

Number of
Shares
Beneficially
Owned by
Each
Reporting
Person With:

8. Shared Voting Power
1,270,717

9. Sole Dispositive Power
0

10. Shared Dispositive Power
1,270,717

11. Aggregate Amount Beneficially Owned by Each Reporting Person
1,270,717

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13. Percent of Class Represented by Amount in Row (11)
7.5%⁽⁴⁾

14. Type of Reporting Person (See Instructions)

(4) Based upon 17,052,202 shares of common stock outstanding as of May 16, 2019, as reported in the Issuer's Prospectus filed with the Securities and Exchange Commission on May 14, 2019.

Item 1. Security and Issuer.

This Schedule 13D (“**Schedule 13D**”) relates to the common stock, par value \$0.0001 per share (the “**Common Stock**”), of Applied Therapeutics, Inc., a Delaware corporation (the “**Issuer**”). The Issuer’s principal executive office is located at 340 Madison Avenue, 19th Floor, New York, New York 10173.

Item 2. Identity and Background.

(a) This Schedule 13D is being filed by Shoshana Shendelman (“**Shendelman**”) and Sycamore Family I LLC, a Delaware limited liability company (“**Sycamore**”). Each of the foregoing is referred to as the “**Reporting Persons**.”

(b) The business address for each Reporting Person is 340 Madison Avenue, 19th Floor, New York, New York 10173.

(c) The occupation of Shendelman is President, CEO and Director of the Issuer. The principal purpose of Sycamore is a holding company to manage assets indirectly or directly owned by Sycamore Family Trust (“**Sycamore Trust**”), its sole member.

(d) During the last five years, none of the Reporting Persons have been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) During the last five years, none of the Reporting Persons have been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction that resulted in a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Shendelman is a citizen of the United States of America and Sycamore is a limited liability company organized under the laws of the State of Delaware.

In accordance with the provisions of General Instruction C to Schedule 13D, information concerning the executive officers, board of directors and each person controlling Sycamore (collectively, the “**Listed Persons**”), required by Item 2 of Schedule 13D, is as follows:

· Shendelman’s spouse, Vladimir Shendelman, is the sole manager of Sycamore and Sycamore Trust is the sole member of Sycamore. Vladimir Shendelman and the Bryn Mawr Trust Company are the joint trustees of Sycamore Trust.

None of the Listed Persons have any beneficial ownership of any Common Stock.

To the Reporting Persons’ knowledge, none of the Listed Persons has been, during the last five years, (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors), or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration.

The Reporting Persons are filing this Schedule 13D as a result of Shendelman’s purchase of 125,000 shares of Common Stock in the Issuer’s initial public offering, which closed on May 16, 2019 (the “**IPO**”), for an aggregate purchase price of \$1,250,000. The remainder of Shendelman’s shares were purchased before the IPO by Shendelman for an aggregate purchase price of \$180.60. Shendelman purchased all of the shares reported using her personal funds. All of the shares of Common Stock held by Sycamore were initially purchased by Shendelman and transferred to Sycamore for estate planning purposes.

Item 4. Purpose of Transaction.

None of the Reporting Persons have a present plan or proposal that relates to or would result in any of the actions specified in clauses (a) through (j) of Item 4 of Schedule 13D.

Shendelman serves as the President, CEO and Director of the Issuer. As such, she may have influence over the corporate activities of the Issuer, including activities which may relate to the transactions described in clauses (a) through (j) of Schedule 13D.

Item 5. Interest in Securities of the Issuer.

The information below is based on 17,052,202 shares of common stock outstanding as of May 16, 2019, as reported in the Issuer's Prospectus filed with the Securities and Exchange Commission on May 14, 2019.

(a) See rows (11) and (13) of the cover pages to this Schedule 13D for the aggregate number of shares of Common Stock and percentages of the shares of Common Stock beneficially owned by each Reporting Person.

The securities beneficially owned by Shendelman include 828,562 shares of Common Stock underlying outstanding options that are immediately exercisable or will be immediately exercisable within 60 days of May 28, 2019.

(b) See rows (7) through (10) of the cover pages to this Schedule 13D for the number of shares of Common Stock as to which each Reporting Person has the sole or shared power to vote or direct the vote and sole or shared power to dispose or to direct the disposition.

(c) Except as described in this statement, none of the Reporting Persons has effected any transactions in the Common Stock in the 60 days prior to the date of this statement.

(d) Except as described in this statement, no person has the power to direct the receipt of dividends on or the proceeds of sales of, the shares of Common Stock owned by the Reporting Persons.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

See the Agreement Regarding the Joint Filing of Schedule 13D, filed as Exhibit 99.1 hereto and incorporated by reference herein.

Shendelman has entered in to various stock option agreements with the Issuer under the Issuer's 2016 Equity Incentive Plan, as amended (the "**2016 Plan**") and the 2019 Equity Incentive Plan, (the "**2019 Plan**"), forms of which are attached hereto as Exhibit 99.2 and Exhibit 99.3, and which are incorporated by reference herein, in amounts and as of the dates as follows:

- a stock option grant under the 2016 Plan on March 21, 2017 to purchase 27,624 shares with a strike price of \$1.00;
- a stock option grant under the 2016 Plan on March 8, 2018 to purchase 726,961 shares with a strike price of \$1.44;
- a stock option grant under the 2016 Plan on March 18, 2019 to purchase 948,894 shares with a strike price of \$4.70; and
- a stock option grant under the 2019 Plan on May 13, 2019 to purchase 767,349 shares with a strike price of \$10.00.

Each of Shendelman and Sycamore have entered in to a lock-up agreement, in the form attached hereto as Exhibit 99.4, which is incorporated by reference herein.

Other than as described in this Schedule 13D, to the knowledge of the Reporting Persons, there are no other contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer.

Item 7. Material to be Filed as Exhibits.

Exhibit No.	Exhibit Name
99.1*	Agreement Regarding the Joint Filing of Schedule 13D.
99.2	Forms of Stock Option Agreement under the 2016 Equity Incentive Plan, as amended (incorporated by reference to Exhibit 10.6 to the Issuer's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on April 12, 2019).
99.3	Forms of Stock Option Agreement under the 2019 Equity Incentive Plan (incorporated by reference to Exhibit 10.3 to the Issuer's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on April 29, 2019).
99.4	Form of Lock-up Agreement (incorporated by reference to "Exhibit F" within Exhibit 1.1 to the Issuer's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on April 29, 2019).

*Filed herewith.

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: May 29, 2019

/s/ Shoshana Shendelman

Shoshana Shendelman

Sycamore Family I LLC

By: /s/ Vladimir Shendelman

Name: Vladimir Shendelman

Title: Manager

Exhibit Index

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99.4	Form of Lock-up Agreement (incorporated by reference to "Exhibit F" within Exhibit 1.1 to the Issuer's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on April 29, 2019).

*Filed herewith.

AGREEMENT REGARDING THE JOINT FILING OF
SCHEDULE 13D

The undersigned, being duly authorized thereunto, hereby execute this agreement as an exhibit to this Schedule 13D to evidence the agreement of the below-named parties, in accordance with the rules promulgated pursuant to the Securities Exchange Act of 1934, to file this Schedule jointly on behalf of each such party.

Dated: May 29, 2019

/s/ Shoshana Shendelman

Shoshana Shendelman

Sycamore Family I LLC

By: /s/ Vladimir Shendelman

Name: Vladimir Shendelman

Title: Manager
