

Shoshana Shendelman
President and Chief Executive Officer
Applied Therapeutics, Inc.
340 Madison Avenue
New York, New York 10173

Re: Applied Therapeutics, Inc.
Amendment No. 1 to Draft Registration Statement on Form S-1
Submitted March 8, 2019
CIK No. 0001697532

Dear Dr. Shendelman:

We have reviewed your amended draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Amendment No. 1 to Draft Registration Statement on Form S-1

Prospectus Summary
Our Pipeline, page 3

1. We note your response to comment 2 and your revised pipeline table. We also note that you have extended the first arrow halfway into Phase 2, which seems inconsistent with your disclosure that the Phase 2/3 clinical trial is to be initiated later this year. Please revise for consistency or advise us why such revision is not necessary.
Market and Industry Data, page 56

2. We note your revised disclosure in response to comment 6 and reissue in part our prior comment. The disclosure provides that information from industry publications and other

Shoshana Shendelman
Applied Therapeutics, Inc.
March 20, 2019
Page 2

third-party sources is inherently imprecise. This statement may imply an inappropriate disclaimer of responsibility with respect to such information. Please revise to state clearly that you are liable for such information or delete the statement.
Certain Relationships and Related Party Transactions, page 140

3. We note your disclosure here and on page F-27 regarding your second license agreement with Columbia University. In the Business section, please disclose the principal terms of this agreement or include a cross-reference to the description in the notes to the financial statements. Please also file this agreement as an exhibit or explain to us why such agreement is not required to be filed. Finally, please ensure that your disclosure regarding the two Columbia agreements is clear and consistent throughout the prospectus by, for example, using consistent defined terms to refer to the two agreements.

4. Footnote 2 to the table on page 142 discloses that Mr. Ilyadzhanov has voting and investment power over the shares owned by E Squared Investment Fund, LLC. Please

revise to disclose Mr. Ilyadzhanov's full name and the basis on which he is a related person. See Item 404(a) of Regulation S-K. Principal Stockholders, page 145

5. In the principal stockholder table on page 145, please disclose the names of the funds affiliated with E Squared Investment Fund, LLC that hold securities in the company. Please also disclose the name(s) of the natural person(s) that have ultimate voting or dispositive control over such securities. See Item 403 of Regulation S-K. Index to Financial Statements, page F-1

6. We note the disclosure in the "Related Parties" section on page F-26 that describes the LaunchLabs Agreement. Please include this agreement in the "Certain Relationships and Related Party Transactions" section of the prospectus or advise us why such disclosure is not required. See Item 404 of Regulation S-K.

You may contact Mark Rakip at 202-551-3573 or William Demarest at 202-551-3432 if you have questions regarding comments on the financial statements and related matters. Please contact David Plattner at 202-551-8094 or Tom Kluck at 202-551-3233 with any other questions.

FirstName LastNameShoshana Shendelman
Corporation Finance
Comapany NameApplied Therapeutics, Inc.
Healthcare & Insurance
March 20, 2019 Page 2
cc: Divakar Gupta, Esq.
FirstName LastName

Sincerely,
Division of
Office of