



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

May 22, 2017

Via E-mail

Amir Avniel
Chief Executive Officer
AIT Therapeutics, Inc.
2 Ilan Ramon, Science Park
Ness Ziona, 7403635 Israel

**Re: AIT Therapeutics, Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed May 19, 2017
File No. 333-216287**

Dear Mr. Avniel:

We have reviewed your amended 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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our May 17, 2017 letter.

Capitalization, page 51

1. Please revise so that capitalization is as reflected in your historical balance sheet as of March 31, 2017.
2. As a related matter, since the reverse merger occurred in the first quarter of 2017, the transaction should be reflected in the historical balance sheet as of March 31, 2017. Accordingly, it does not appear appropriate to label the reverse merger transaction as pro forma. Please also revise to describe any other pro forma adjustments responsible for the differences between actual and pro forma capitalization.

Audited Financial Statements as of December 31, 2016 and 2015

3. Please revise to retroactively present the effects of the reverse merger recapitalization on equity and loss per share for all periods, consistent with the accounting for recapitalizations and the response to comment 37 in your letter dated May 2, 2017.

Exhibit 23.1

4. Please revise to provide an updated consent from your independent accountants.

You may contact Andri Carpenter at (202) 551-3645 or Gary Todd, Senior Accountant, at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Heather Percival at (202) 551-3498 or Geoff Kruczek, Special Counsel, at (202) 551-3641 with any other questions.

Sincerely,

/s/ Geoff Kruczek for

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Drew M. Altman, Esq.
Greenberg Traurig, P.A.