

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

Mail Stop 4546

February 27, 2017

Yaky Yanay Chief Financial Officer, Chief Operating Officer and President Pluristem Therapeutics Inc. Matam Advanced Technology Park Building No. 5 Haifa, Israel, 31905

Re: Pluristem Therapeutics Inc.

Form 10-K for the Fiscal Year Ended June 30, 2016

Filed September 7, 2016 File No. 001-31392

Dear Mr. Aberman:

We have reviewed your filing 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

General

1. In future filings, please include all material terms for your material collaboration and license agreements. Please also file these agreements as exhibits to your next Exchange Act report. We note, for example, your collaborative research agreement with the Berlin-Brandenburg Center for Regenerative Therapies at Charité, your license agreement with TES Holdings Co., Ltd., and your collaboration with Fukushima Medical University. Please ensure that your disclosure includes all material terms including, as appropriate, the duration of the agreement, termination provisions, material payment provisions, future milestone payments to be paid or received, and royalty rates and royalty terms. In the alternative, please tell us why you do not believe these agreements are material.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

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Please contact Chris Edwards at (202) 551-6761 or Erin Jaskot at (202) 551-3442 with any questions.

Sincerely,

/s/ Erin K. Jaskot

Suzanne Hayes Assistant Director Office of Healthcare and Insurance