



DIVISION OF
CORPORATION FINANCE

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

March 19, 2014

Via E-mail

Yaky Yanay
Executive Vice President, Chief
Financial Officer and Secretary
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, 2013
Filed September 11, 2013
Response dated February 19, 2014
File No. 001-31392**

Dear Mr. Yanay:

We have reviewed your February 19, 2014 response to our February 4, 2014 comment letter and have the following additional comment.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to this comment, we may have additional comments.

Item 1. Business

Ongoing Research and Development Plans, page 6

1. We note your response to our prior comment 1 and your position that the royalty rate represents confidential information. However, you should still disclose the royalty rate within a range of 10%, e.g., single digits, teens, etc. This is true even if the exact percentage rate has been redacted pursuant to a grant of confidential treatment. Additionally, please note that under the confidential treatment rule, we have the authority to reconsider our action in the future with respect to grants of confidential treatment. Please include your proposed disclosure in a supplemental response that also includes the full proposed disclosure from your letter dated February 19, 2014 in response to comment 1.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comment, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact Austin Stephenson at (202) 551-3192, John Krug at (202) 551-3862 or me at (202) 551-3715 with any questions.

Sincerely,

/s/ Bryan J. Pitko for

Jeffrey P. Riedler
Assistant Director