



DIVISION OF
CORPORATION FINANCE

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

February 4, 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
File No. 001-31392

Dear Mr. Yanay:

We have reviewed your filing and have the following comments. In our comments, we ask you to provide us with information so we may better understand your disclosures.

Please respond to this letter within 10 business days by providing us the requested information or by advising us when you will provide the requested response. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comments.

After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Item 1. Business

Ongoing Research and Development Plans, page 6

1. We note your disclosure regarding the collaboration agreements with United Therapeutics and CHA Bio&Diostech in this section. Please disclose all duration and termination provisions applicable to each agreement as well as the applicable royalty rates within a ten percent range, e.g. single digits, teens, etc. Finally, we note your reference to other research institutions in the second paragraph of this page with whom you have collaborated in the past. Please expand the disclosure to state whether there are any current obligations or ongoing collaboration activities relating to these entities.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Liquidity and Capital Resources, page 26

2. We note your disclosure on this page relating to grants received from the Office of the Chief Scientist and related restrictions described in the risk factor on page 15. Any agreement relating to these grants appears to be material to your operations. Please promptly file any such agreement as an exhibit to your annual report pursuant to Item 601(b)(10) of Regulation S-K. In addition, to the extent applicable, please disclose any duration and termination provisions relating to the most recent grant award.

Application of Critical Accounting Policies
Research and Development Expenses, Net, page 29

3. We believe your disclosure could provide more insight into research and development expenses incurred. Please provide us an analysis of your research and development expenses for each year presented showing the amount incurred:
 - for each of these: clinical trials expenses, salaries, lab materials expenses and consultants and subcontractor expenses; and
 - for each key research and development project.Reconcile the totals for each analysis to total research and development expense. Consider providing us proposed disclosure to be included in future periodic reports to improve your disclosure.

Item 8. Financial Statements and Supplementary Data

Note 2: - Significant Accounting Policies

i. Revenue Recognition from the license Agreement with United Therapeutics, page F-16

4. Please provide us your analysis that supports accounting for amounts received for the achievement of milestones under your United Therapeutics license agreement in accordance with ASC 450-30-25. In your analysis explain how your accounting treatment would differ from the milestone method under ASC 605-28-25. Also, tell us why you do not provide information about each milestone. In this regard, ASC 605-28-50-2 would require additional information. Consider providing us revised proposed disclosure to be included in future periodic reports, if and as applicable.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes 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 comments, 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.

You may contact Scott Wuenschell, Staff Accountant, at (202) 551-3467 or Joel Parker, Accounting Branch Chief, at (202) 551-3651 if you have questions regarding the processing of your response as well as any questions regarding comments on the financial statements and related matters. You may contact Austin Stephenson, Staff Attorney, at (202) 551-3192 or John Krug, Senior Counsel, at (202) 551-3862 with questions on any of the other comments. In this regard, do not hesitate to contact me at (202) 551-3679.

Sincerely,

/s/ Jim B. Rosenberg

Jim B. Rosenberg
Senior Assistant Chief Accountant