



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4546

October 11, 2016

Dr. Lynn Seely  
Principal Executive Officer  
Myovant Sciences Ltd.  
Clarendon House  
2 Church Street  
Hamilton HM 11, Bermuda

**Re: Myovant Sciences Ltd.  
Registration Statement on Form S-1  
Filed September 30, 2016  
File No. 333-213891**

Dear Dr. Seely:

We have reviewed your 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.

Company Overview, page 1

1. Please tell us how your disclosure on page 2 concerning the exclusivity of the license is consistent with the sublicense terms contained in section 3.3.4 of Exhibit 10.1.

Our Solution for Women's Health Indications, page 81

2. We note your revised disclosures on page 81 in response to our prior comment 3. Please also explain why the baseline for the mean serum estradiol at the beginning of treatment (graph 1) is different than the baseline at four weeks after treatment (graph 2). Also, explain to us why you represent the mean in one graph and the median in the other one.

Employees, page 114

3. We note the revised disclosure reflecting a recent increase to your staffing. In light of your disclosures on pages 114 and elsewhere indicating that you anticipate conducting extensive research and development efforts, please revise your discussion concerning employees to indicate how many of them are engaged in research and development activities.

Facilities, page 114

4. We note your revised disclosure on this page in response to our prior comment 4. Please clarify whether you are or will be leasing space from Roivant in the various locations you reference, including Basel, and whether R&D activities are or will be conducted in such spaces.

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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Christine Torney at 202-551-3652 or Lisa Vanjoske, Assistant Chief Accountant, at 202-551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact Dorrie Yale at 202-551-8776 or Joseph McCann at 202-551-6262 with any other questions.

Sincerely,

/s/ Joseph McCann for

Suzanne Hayes  
Assistant Director  
Office of Insurance and Healthcare

cc: Frank F. Rahmani, Esq. — Cooley LLP