

June 28, 2019

Christopher Peetz
Chief Executive Officer
Mirum Pharmaceuticals, Inc.
950 Tower Lane, Suite 1050
Foster City, CA 94404

Re: Mirum Pharmaceuticals, Inc.
Registration Statement on Form S-1
Filed June 21, 2019
File No. 333-232251

Dear Mr. Peetz:

We have reviewed your registration statement and have the following comment. 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 comment applies 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 this comment, we may have additional comments.

Registration Statement on Form S-1

Business
Our Clinical Trials of Maralixibat in PFIC
Phase 2 INDIGO Trial, page 97

1. We refer to your revised disclosures on pages 98-100, which indicate that certain PFIC2 patients were unlikely to respond to treatment, and that PFIC2 patients that had a non-truncating mutation in the PFIC2 gene had the greatest reductions in SBA and pruritus. However, elsewhere in your prospectus you refer more generally to PFIC2 patients, such as your statements on page 97 that "profound and durable reductions in SBA" were seen in PFIC2 patients at 48 weeks, on page 3 that multi-parameter responses were observed in PFIC2 patients, and on page 1 that you are initially focused on the PFIC2 population, which is approximately 60% of the PFIC patient population. Please

clarify your
Christopher Peetz
Mirum Pharmaceuticals, Inc.
June 28, 2019
Page 2

statements. If your focus will actually be on a further subset of the PFIC2 patient population (e.g., the non-truncating PFIC2 patient population), please revise your disclosures throughout to clarify this distinction.

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 Paul Cline at 202-551-3851 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters. Please contact Dorrie Yale at 202-551-8776 or Mary Beth Breslin at 202-551-3625 with

any other
questions.

FirstName LastNameChristopher Peetz
Corporation Finance
Company NameMirum Pharmaceuticals, Inc.
Healthcare & Insurance
June 28, 2019 Page 2
cc: Jason L. Kent - Cooley LLP
FirstName LastName

Sincerely,
Division of
Office of