

DIVISION OF CORPORATION FINANCE

June 9, 2020

Ian Mortimer Chief Financial Officer Xenon Pharmaceuticals Inc. 200 – 3650 Gilmore Way Burnaby, British Columbia V5G 4W8 Canada

> Re: Xenon Pharmaceuticals Inc. Registration Statement on Form S-3 Filed June 3, 2020 File No. 333-238896

Dear Mr. Mortimer:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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.

Please contact Courtney Lindsay at (202) 551-7237 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences