

DIVISION OF CORPORATION FINANCE

August 12, 2019

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 August 6, 2019 File No. 333-233056

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 Sonia Bednarowski at 202-551-3666 with any questions.

Sincerely,

Division of Corporation Finance Office of Healthcare & Insurance