

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

Office of

Corporation Finance

Healthcare & Insurance