

December 30, 2015

**Re: Xenon Pharmaceuticals Inc. (the “Company”)
Registration Statement on Form S-3
Registration Statement No. 333-208376**

Securities and Exchange Commission
Division of Corporation Finance – AD1
Attn: Suzanne Hayes, Assistant Director
100 F Street, N.E.
Washington, DC 20549

Dear Ms. Hayes:

In accordance with Rule 460 and Rule 461 under the Securities Act of 1933, as amended, the undersigned registrant hereby requests the effective date for the Registration Statement referred to above be accelerated so that it will be declared effective at 4:30 p.m. ET on December 31, 2015 or as soon thereafter as is practicable. The Company acknowledges that: (i) should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing; (ii) the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and (iii) the Company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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Sincerely,

XENON PHARMACEUTICALS INC.

By: /s/ Ian Mortimer
Name: Ian Mortimer
Title: Chief Financial Officer and Chief Operating Officer