

September 29, 2014

FOIA CONFIDENTIAL TREATMENT REQUEST: CERTAIN PORTIONS OF THIS LETTER HAVE BEEN OMITTED FROM THE VERSION SUBMITTED VIA EDGAR. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS. INFORMATION THAT WAS OMITTED IN THE EDGAR VERSION HAS BEEN NOTED IN THIS LETTER WITH A PLACEHOLDER IDENTIFIED BY THE MARK "[\*\*\*]". THE OMITTED PORTIONS ARE BRACKETED IN THIS PAPER LETTER FOR EASE OF IDENTIFICATION.

*Via EDGAR and Overnight Delivery*

Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, D.C. 20549-3720

Attention: Jeffrey P. Riedler, Assistant Director  
Johnny Gharib, Attorney  
Joel Parker, Accounting Branch Chief  
Tabatha Akins, Staff Accountant

**Re: Xenon Pharmaceuticals Inc.  
Registration Statement on Form S-1  
Filed September 10, 2014  
File No. 333-198666**

Ladies and Gentlemen:

We are submitting this letter on behalf of Xenon Pharmaceuticals Inc. (the "**Company**") in connection with the review by the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") of the Company's Registration Statement on Form S-1 filed on September 10, 2014 (the "**Registration Statement**"). Because of the sensitive nature of certain information contained herein, this submission is accompanied by a request for confidential treatment for selected portions of this letter. The Company has filed a separate letter with the Office of Freedom of Information and Privacy Act Operations in connection with the confidential treatment request, pursuant to Rule 83 of the Commission's Rules on Information and Requests, 17 C.F.R. § 200.83. For the Staff's reference, we have enclosed a copy of the Company's letter to the Office of Freedom of Information and Privacy Act Operations, as well as a copy of this correspondence, marked to show the portions redacted from the version submitted via EDGAR and for which the Company is requesting confidential treatment. For the convenience of the Staff, we are providing to the Staff by overnight delivery copies of this letter.

The purpose of this letter is to respond to the comment conveyed orally by Mr. Johnny Gharib during a teleconference on September 24, 2014 with Messrs. Steven Bernard and Bryan King of Wilson Sonsini Goodrich & Rosati, Professional Corporation. Specifically, Mr. Gharib requested that the Company provide copies of certain emails sent by an officer of the Company, which the Company believes constitute permitted testing-the-waters communications under Section 5(d) of the Securities Act of 1933, as amended (the "**Act**"), and a description of the

circumstances related to the dissemination of such emails. The Company's response to Mr. Gharib's comment is set forth below:

**Background**

[\*\*\*]

[\*\*\*]

**Section 5(d) Communications**

[\*\*\*]

[\*\*\*]

**Conclusion**

[\*\*\*]

[\*\*\*]

\* \* \* \* \*

Please direct any questions with respect to this letter to the undersigned at (650) 320-4658 or sbernard@wsgr.com. Thank you for your assistance.

Sincerely,

WILSON SONSINI GOODRICH & ROSATI  
Professional Corporation

/s/ Steven V. Bernard

Steven V. Bernard

Enclosures

cc (w/encl.):

Simon Pimstone  
Ian Mortimer  
**Xenon Pharmaceuticals Inc.**

Charles Kim  
**Cooley LLP**

Anthony Lindsay  
**KPMG LLP**

Bryan King  
**Wilson Sonsini Goodrich & Rosati,  
Professional Corporation**

Exhibit A

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