

September 24, 2014

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  
Option Pricing Review**

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 commercially 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 notify the Staff that the price range included on the cover of the Company’s preliminary prospectus is expected to be within a range of \$[\*\*\*] and \$[\*\*\*] per share in order to enable the Staff to complete its review of the Company’s option pricing and fair value determinations and to provide an update regarding offering timing considerations. Prior to printing preliminary prospectuses and commencing the roadshow,

The Company and its underwriters will further refine and narrow this price range so the breadth of the price range is consistent with SEC guidance. This preliminary price range was determined based, in large part, on various discussions among the Board of Directors of the Company (the “**Board**”) and the Company’s senior management. The Company had further discussions regarding the preliminary price range with representatives of Jefferies LLC and Wells Fargo Securities, LLC, the lead underwriters for the offering, that took place during the week of September 15, 2014. This letter provides a discussion of the Company’s approach to option pricing and fair value determinations with respect to the option grants made by the Company’s Board from July 1, 2013 through the date of this letter.

The Company supplementally advises the Staff that the price range noted above is subject to further revision based on market conditions, business developments and other factors. Further, while the Company expects to implement a reverse share split and reflect such split in the same amendment to the Registration Statement that includes the estimated preliminary price range, all per share numbers in this letter are pre-split, and therefore consistent with the Registration Statement.

### Option Grants by the Company since July 1, 2013

To facilitate the Staff’s review, the table below contains a complete list of all grants of options to purchase the Company’s common shares made from July 1, 2013 through the date of this letter (the “**Review Period**”).

<u>Grant Date</u>	<u>Number of Common Shares Underlying Options Granted</u>	<u>Option Exercise Price (CAD\$)</u>	<u>Option Exercise Price (U.S. \$)</u>	<u>Fair Value Per Share (U.S. \$)</u>
August 1, 2013	207,000	2.01	1.94	1.94
January 14, 2014	764,000	2.22	2.03	2.03
February 2, 2014	2,000	2.22	2.00	2.00
July 28, 2014	18,000	2.31	2.14	2.14
August 5, 2014	12,500	2.31	2.11	2.11

### Timing Considerations

The Company supplementally advises the Staff that it anticipates commencing its road show as early as October 6, 2014, with a target pricing date as early as October 15, 2014.

### Previously Provided Information

The section captioned “Share-Based Compensation” on pages 69 to 74 of the Management’s Discussion and Analysis of Financial Condition and Results of Operations (“**MD&A**”) section of the Registration Statement includes a detailed explanation of the Company’s approach to accounting for share-based compensation, the methodology used by the Company to determine the fair value of its common shares on dates when options were granted by the Board, factors and approaches considered by the Company in determining fair value and factors that caused the fair value to change over time.

### Factors Contributing to the Difference in Fair Value of Common Shares as of August 5, 2014 and the Preliminary Price Range

The Registration Statement filed on September 10, 2014 included stock option grant information through such date, with the latest option grant issued on August 5, 2014, the date on which the Company granted options to purchase 12,500 common shares of the Company. At the time such option grants were approved, the Board determined that the fair value per common share of the Company underlying such option grants was \$2.11 per common share. The Board based its determination of the fair value of the Company's common shares on the factors described in the MD&A and on the valuation report that the Company received from its independent valuation specialist (the "**Valuation Report**") which concluded that, as of June 30, 2014, the fair market value of the Company's common shares was \$2.17 per common share. As noted in the Registration Statement, the exercise prices for the Company's options are denominated in Canadian dollars and have been translated to U.S. dollars at the exchange rate in effect on the applicable grant date. Thus, while the fair value per share in U.S. dollars dropped from \$2.17 to \$2.11 from the Valuation Report to the August 5, 2014 option grants, this drop is solely attributable to the change in the exchange rate. The Company has not granted any additional options subsequent to August 5, 2014.

We supplementally provide the Staff the following discussion regarding the significant factors contributing to the difference between the preliminary price range and the fair value of the Company's common shares as of August 5, 2014.

The Company believes the difference between the fair value of its common shares as of August 5, 2014 and the preliminary price range, as recommended by the underwriters, is the result of the following factors:

- *Conversion of Preferred Shares.* The holders of the Company's redeemable convertible preferred shares currently enjoy substantial economic rights and preferences over the holders of its common shares. In particular, holders of the Company's outstanding redeemable convertible preferred shares are entitled to receive dividends prior to any dividends declared or paid on any of the Company's common shares. In addition, holders of outstanding redeemable convertible preferred shares are entitled to receive liquidation preferences prior to payments to holders of common shares in the event of any liquidation, dissolution, reorganization or winding-up of the Company. The holders of convertible preferred stock also have anti-dilution protection under certain circumstances. The anticipated price range to be set forth on the cover of the Company's preliminary prospectus assumes the conversion of its redeemable convertible preferred shares upon the completion of its initial public offering. The corresponding elimination of the preferences and rights enjoyed by the holders of such redeemable convertible preferred shares results in an increased common stock valuation.
- *Enhanced Liquidity and Marketability of the Company's Common Shares.* The Valuation Report that was used by the Board as part of its determination of the fair value of the Company's common shares on August 5, 2014 reflected the illiquidity of the Company's common shares on that date and the uncertainty of the Company's public offering. Given the proximity to the completion of the Company's initial public offering, the valuation reflected in the anticipated price range to be set forth on the cover of the Company's preliminary prospectus assumes a successful offering and represents an estimate of the fair value of the unrestricted, freely tradable common shares that would be sold in the public market without discounts for illiquidity and lack of marketability.

- *Enhanced Balance Sheet and Financial Resources.* The Board's determination of the fair value of the Company's common shares on August 5, 2014 was influenced, in part, by the Company's June 30, 2014 balance of \$44.7 million of cash, cash equivalents and marketable securities. As disclosed in the Registration Statement, in August 2014, following the August 5, 2014 option grants, Genentech, Inc. ("**Genentech**") received approval from Health Canada for its GDC-0276 Clinical Trial Application ("**CTA**"), which triggered an \$8.0 million milestone payment to the Company. This milestone payment represented more than 17% of the Company's cash, cash equivalents and marketable securities as of June 30, 2014 and provided the Company with increased liquidity, a strengthened balance sheet and additional funds to continue the development of its product pipeline. In addition to the Genentech milestone payment, given the proximity to the completion of the Company's initial public offering, the valuation reflected in the anticipated price range to be set forth on the cover of the Company's preliminary prospectus assumes a successful offering. A successful offering will provide the Company with (i) proceeds that substantially strengthen the Company's balance sheet as a result of increased cash, (ii) access to the public company debt and equity markets, and (iii) a 'currency' to enable the Company to make strategic acquisitions as the Board may deem appropriate, which are reflected in the valuation reflected in the anticipated price range to be set forth on the cover of the Company's preliminary prospectus.
- *Continued Progress in Product Candidate Development.* In addition to the financial benefits realized by the Company upon receipt of the \$8.0 million milestone payment in August 2014 from Genentech, the approval of Genentech's CTA by Health Canada on August 7, 2014 represents another positive development for the Company's product candidate pipeline. Specifically, Health Canada's approval of the CTA permits Genentech to initiate a Phase 1 clinical trial, which doubles the number of product candidates the Company has in clinical-stage development.
- *Financial Markets and Comparable Companies.* The performance of the financial markets in general, and the performance of publicly-traded biotechnology companies in particular, have remained strong. Major market indices, including the NASDAQ Biotechnology Index, are at or near their all-time highs and the market for biotechnology initial public offerings remains strong, all of which contributed to an increase in the value of the Company's common shares during the relevant period.
- *Different Valuation Methodology.* The preliminary price range for the initial public offering was determined in consultation with the underwriters without reference to the valuation methodologies previously employed by the Board. The price range is based in large part on the underwriters' substantial experience and expertise in advising companies on initial public offerings, their experience in capital markets generally and in establishing a price range for an initial public offering of a clinical-stage biotechnology company.

Based upon the factors discussed above, the Company advises the Staff that it believes that the description above discloses the significant factors contributing to the difference between the estimated price range for the Company's initial public offering and the fair value of the Company's common shares as of August 5, 2014, the date of the Company's last option grants, and supports the valuation used by the Company in determining the fair value of its common shares for financial reporting purposes on August 5, 2014 at \$2.11 per common share.

**Conclusion**

The Company believes that the fair values for its common shares applicable to each option grant are appropriate and demonstrate the efforts of the Board and the Company to consider all relevant factors in determining fair value at each valuation date. The Company believes it has fully complied with all applicable rules and regulations for the determination of fair value, including the best practices outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*.

\* \* \* \* \*

Please direct any questions with respect to this letter to the undersigned or Jordan Coleman at (650) 493-9300. 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**