



XENON PHARMACEUTICALS INC.

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS

NOTICE IS HEREBY GIVEN that the annual meeting (the “**Meeting**”) of the shareholders of Xenon Pharmaceuticals Inc. (“**Xenon**” or the “**Corporation**”) will be held at Element Vancouver Metrotown, 5988 Willingdon Avenue, Burnaby, British Columbia, on Monday, June 4, 2018 at 11:30 a.m. (PDT) for the following purposes:

1. to receive the financial statements of the Corporation for the financial year ended December 31, 2017 and the report of the Corporation’s auditor thereon;
2. to elect as directors of the Corporation the nine nominees named in the accompanying Proxy Statement and Management Information Circular to hold office until the next annual meeting of the Corporation or until their successors are duly elected;
3. to appoint KPMG LLP as the Corporation’s auditor to hold office until the next annual meeting of the Corporation;
4. to authorize the Audit Committee of the board of directors of the Corporation to fix the remuneration to be paid to the auditors of the Corporation; and
5. to conduct such other business as may properly be brought before the Meeting or any adjournment thereof.

The accompanying Proxy Statement and Management Information Circular provides additional information as to the matters to be dealt with at the Meeting and is deemed to form a part of this Notice. The holders of the common shares of the Corporation (the “**Common Shares**”) of record at the close of business on April 9, 2018 (the “**Record Date**”) are entitled to receive notice of and to vote at the Meeting. The holders of the Series 1 preferred shares of the Corporation (the “**Preferred Shares**”) of record at the close of business on the Record Date are entitled to receive notice of and to vote at the Meeting, subject to certain voting limitations set forth in the rights, privileges, restrictions and conditions attached to the Preferred Shares.

Registered shareholders who are unable to attend the Meeting in person and who wish to ensure that their Common Shares and Preferred Shares, as applicable, will be voted at the Meeting are requested to complete, date and execute the enclosed forms of proxy, as applicable, and deliver it in accordance with the instructions set out in the forms of proxy and in the Proxy Statement and Management Information Circular.

Proxies for Common Shares to be used at the Meeting must be received by American Stock Transfer & Trust Company, LLC, not later than 11:59 p.m. (EDT) on Friday, June 1, 2018 (or, if the Meeting is adjourned, not later than 48 hours, excluding Saturdays, Sundays and holidays, preceding the time of such adjourned Meeting). Proxies may be submitted by one of the following alternative methods:

By Internet: <http://www.voteproxy.com> and follow the on-screen instructions or scan the QR code provided on the form of proxy;

By Telephone: 1-800-PROXIES (1-800-776-9437) (toll-free in the United States and Canada) or 1-718-921-8500 and enter the 11 digit control number printed on the form of proxy;

By Email: Complete, date and sign your proxy and email a scanned copy to proxy@amstock.com;

By Fax: Complete, date and sign your proxy and fax a copy to 718-765-8730; or

By Mail: Complete, date and sign your proxy and mail a copy to American Stock Transfer & Trust Company, LLC, at 6201 15th Avenue, Brooklyn, NY 11219, United States.

Proxies for Preferred Shares to be used at the Meeting must be received by the Corporation, not later than 11:59 p.m. (EDT) on Friday, June 1, 2018 (or, if the Meeting is adjourned, not later than 48 hours, excluding Saturdays, Sundays and holidays, preceding the time of such adjourned Meeting). Proxies may be submitted by one of the following alternative methods:

By Email: Complete, date and sign your proxy and email a scanned copy to legallaffairs@xenon-pharma.com;

By Fax: Complete, date and sign your proxy and fax a copy to 604-484-3450; or

By Mail: Complete, date and sign your proxy and mail a copy to the Corporation, at 200-3650 Gilmore Way, Burnaby, British Columbia V5G 4W8, Canada, Attention: Corporate Secretary.

If you hold your Common Shares or Preferred Shares in a brokerage account, you are not a registered shareholder. Non-registered shareholders who plan to attend the Meeting must follow the instructions set out in the voting instruction form provided to them by their broker or other intermediary to ensure that their Common Shares or Preferred Shares, as applicable, will be voted at the Meeting.

DATED at Burnaby, British Columbia this 27th day of April, 2018.

By Order of the Board of Directors

/s/ Simon N. Pimstone

Simon N. Pimstone
Chief Executive Officer