



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 virtually via live webcast on Tuesday, June 4, 2024 at 11:30 a.m. (PDT) at <https://web.lumiconnect.com/254509977> for the following purposes:

1. to receive the financial statements of the Corporation for the financial year ended December 31, 2023 and the report of the Corporation’s auditor thereon;
2. to elect as directors of the Corporation the eight 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 approve, on an advisory basis, the compensation of the Corporation’s named executive officers;
4. to approve certain amendments to the Corporation’s Amended and Restated 2014 Equity Incentive Plan, including to increase the maximum number of common shares of the Corporation (“**Common Shares**”) issuable thereunder by 5,200,000;
5. to appoint KPMG LLP as the Corporation’s auditor to hold office until the next annual meeting of the Corporation;
6. 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
7. 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 Common Shares of record at the close of business on April 5, 2024 (the “**Record Date**”) are entitled to receive notice of and to vote at the Meeting.

Xenon will hold the Meeting in a virtual-only format, which will be conducted online via live webcast. Registered shareholders will be able to attend, participate and vote at the Meeting online at <https://web.lumiconnect.com/254509977>. **If you hold your Common Shares in a brokerage account, you are not a registered shareholder. Non-registered shareholders who have not duly appointed themselves as proxyholders will be able to attend the Meeting as guests, but guests will not be able to participate or vote at the Meeting.**

A shareholder that wishes to appoint a person other than the management nominees identified on the applicable form(s) of proxy or voting instruction form, as applicable, to represent him, her or it at the Meeting may do so by inserting such person’s name in the blank space provided in the applicable form(s) of proxy or voting instruction form, as applicable, and following the instructions for submitting such form of proxy or voting instruction form, as applicable. This must be completed prior to registering such proxyholder, which is an additional step to be completed once you have submitted your applicable form(s) of proxy or voting instruction form. **If you wish that a person other than the management nominees identified on the applicable form(s) of proxy or voting instruction form attend and participate at the Meeting as your proxy and vote your Common Shares, including if you are a non-registered shareholder and wish to appoint yourself as proxyholder to attend, participate and vote at the Meeting, you MUST register such proxyholder after having submitted your applicable form(s) of proxy or voting instruction form, as applicable, identifying such proxyholder.** Failure to register the proxyholder will result in the proxyholder not receiving a control number to participate at the Meeting (a “**Control Number**”). Without a Control Number, proxyholders will not be able to participate or vote at the Meeting. To register a proxyholder, shareholders **MUST** provide their proxyholder’s contact information to **Equiniti Trust Company, LLC** by email to proxy@equiniti.com, so that **Equiniti Trust Company, LLC** may provide the proxyholder with a Control Number via email.

Proxies for Common Shares to be used at the Meeting must be received by Equiniti Trust Company, LLC, not later than 11:59 p.m. (EDT) on Monday, June 3, 2024 (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 1-201-299-4446 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@equiniti.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 Equiniti Trust Company, LLC, at 55 Challenger Road, Suite 2008, 2nd Floor, Ridgefield Park, NJ 07660, United States.

DATED at Vancouver, British Columbia this 26th day of April, 2024.

By order of the board of directors

/s/ Ian Mortimer

Ian Mortimer
President and Chief Executive Officer