

\$250,000,000



Common Shares

**Pre-funded Warrants to Purchase Common Shares**

This free writing prospectus relates only to the public offering of common shares and pre-funded warrants to purchase common shares of Xenon Pharmaceuticals Inc. and should be read together with the preliminary prospectus supplement dated October 4, 2021, or the Preliminary Prospectus Supplement, and the accompanying base prospectus, in each case, including the documents incorporated by reference therein. The information in this free writing prospectus updates and, to the extent inconsistent, supersedes the information in the Preliminary Prospectus Supplement. This free writing prospectus supplements the Preliminary Prospectus Supplement primarily to reflect the addition of certain pre-funded warrants, and the common shares issuable upon the exercise of such pre-funded warrants, to the securities being offered by Xenon Pharmaceuticals Inc. Except as otherwise indicated, all information in this free writing prospectus and the Preliminary Prospectus Supplement assumes no exercise by the underwriters of their option to purchase additional common shares and no exercise of the pre-funded warrants included in this offering.

This free writing prospectus is qualified in its entirety by reference to the Preliminary Prospectus Supplement and the accompanying base prospectus, in each case, including the documents incorporated by reference therein. Financial information and other information presented in the Preliminary Prospectus Supplement or incorporated by reference therein is deemed to have changed to the extent affected by the changes described herein. This free writing prospectus should be read together with the Preliminary Prospectus Supplement and the accompanying base prospectus, in each case, including the documents incorporated by reference therein, before making a decision in connection with an investment in the securities. Capitalized terms used in this free writing prospectus but not defined have the meanings given to them in the Preliminary Prospectus Supplement.

<b>Issuer</b>	Xenon Pharmaceuticals Inc.
<b>Common shares offered by us</b>	_____ shares (_____ common shares if the underwriters' option to purchase additional common shares is exercised in full).
<b>Pre-funded warrants offered by us</b>	<p>We are also offering, in lieu of common shares to certain investors that so choose, pre-funded warrants to purchase _____ common shares. The purchase price of each pre-funded warrant will equal the price per share at which common shares are being sold to the public in this offering, minus \$0.0001, and the exercise price of each pre-funded warrant will equal \$0.0001 per share. Each pre-funded warrant will be exercisable from the date of issuance until the date the warrant is exercised in full, subject to an ownership limitation. See "Description of Pre-Funded Warrants." This free writing prospectus and the Preliminary Prospectus Supplement also relate to the offering of the common shares issuable upon the exercise of such pre-funded warrants.</p> <p>The lock-up restrictions described in the Preliminary Prospectus Supplement under "Underwriting" will not apply to the issuance of common shares upon the exercise of the pre-funded warrants during the 90-day period following the date of the final prospectus supplement to be filed in connection with this offering.</p>
<b>Option to purchase additional common shares</b>	We expect to grant the underwriters an option to purchase up to _____ additional common shares. This option is exercisable, in whole or in part, for a period of 30 days from the date of this prospectus supplement.
<b>Nasdaq Global Market symbol</b>	Our common shares are listed on the Nasdaq Global Market under the symbol "XENE." There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. We do not intend to list the pre-funded warrants on the Nasdaq Global Market or any other national securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants will be limited. See "Description of Pre-Funded Warrants".

## RISK FACTORS

***Raising additional capital may cause dilution to our existing shareholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.***

The terms of any financing arrangements we enter into may adversely affect the holdings or the rights of our shareholders and the issuance of additional securities, whether equity or debt, by us, or the possibility of such issuance, may cause the market price of our common shares to decline. The sale of additional equity or convertible securities also would dilute all of our shareholders. For example, in November 2019, we entered into the November 2019 sales agreement with Jefferies LLC, or Jefferies, and Stifel, Nicolaus & Company, Incorporated, or Stifel to sell up to \$50.0 million of our common shares, from time to time, through an “at-the-market” equity offering program under which Jefferies and Stifel acted as sales agents. As of January 2020, we had sold an aggregate of 3,252,330 common shares for proceeds of \$48.5 million, net of commissions paid and transaction expenses. In January 2020, we completed an underwritten public offering of 3,750,000 of our common shares at a public offering price of \$16.00 per share for proceeds of \$56.3 million, net of underwriting discounts, commissions and offering expenses. In February 2020, the underwriters of the January 2020 public offering exercised their option to purchase an additional 562,500 of our common shares at a public offering price of \$16.00 per share, raising additional proceeds of \$8.4 million, net of underwriting discounts, commissions and offering expenses. Further, in August 2020, we entered into the August 2020 sales agreement with Jefferies and Stifel to sell up to \$100.0 million of our common shares, from time to time, through an “at-the-market” equity offering program under which Jefferies and Stifel are acting as sales agents. As of June 30, 2021, we had sold an aggregate of 733,000 common shares for proceeds of \$10.7 million, net of commissions paid and transaction expenses. In March 2021, we completed an underwritten public offering of 5,135,135 of our common shares, including 810,810 shares sold upon the full exercise of the underwriters’ option to purchase additional shares, and pre-funded warrants to purchase 1,081,081 common shares. The common shares were offered at a public offering price of \$18.50 per common share and the pre-funded warrants were offered at a price of \$18.4999 per pre-funded warrant, for proceeds of \$107.9 million, net of underwriting discounts, commissions and offering expenses. In September 2021, pursuant to the terms of our collaboration agreement with Neurocrine Biosciences, Inc., or Neurocrine Biosciences, we issued 275,337 common shares to Neurocrine Biosciences for an aggregate purchase price of \$5.5 million.

We were also party to an amended and restated loan and security agreement with Silicon Valley Bank pursuant to which we had borrowed an aggregate principal amount of \$15.5 million. The restated loan and security agreement was secured by substantially all of our assets except intellectual property and required compliance with various affirmative and negative covenants. In May 2020, we repaid the total outstanding term loan balance ahead of the maturity date and all encumbrances were removed by Silicon Valley Bank. Any future incurrence of indebtedness would result in increased fixed payment obligations and, potentially, the imposition of restrictive covenants. Such covenants could include limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. We could also be required to seek funds through arrangements with collaborators or otherwise at an earlier stage than otherwise would be desirable resulting in the loss of rights to some of our product candidates or other unfavorable terms, any of which may have a material adverse effect on our business, operating results and prospects. In addition, any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. Additionally, our shareholders may be further diluted by the exercise of the pre-funded warrants being offered in this offering.

***New investors in our common shares or pre-funded warrants will experience immediate and substantial dilution after this offering.***

Since the public offering price for our common shares and pre-funded warrants in this offering is substantially higher than the net tangible book value per share of our common shares outstanding prior to this offering, you will suffer immediate and substantial dilution in the net tangible book value of the common shares or pre-funded warrants you purchase in this offering. If the underwriters exercise their option to purchase additional common shares, you will experience additional dilution. See the section entitled “Dilution” below for a more detailed discussion of the dilution you will incur if you purchase shares in this offering.

The issuance of additional common shares could be dilutive to shareholders if they do not invest in future offerings. In addition, we have a significant number of options to purchase our common shares outstanding. If these options are exercised, you may incur further dilution. Moreover, to the extent that we issue additional options to purchase, or securities convertible into or exchangeable for, common shares in the future and those options or other securities are exercised, converted or exchanged, shareholders may experience further dilution.

***There is no public market for the pre-funded warrants being offered in this offering.***

There is no public trading market for the pre-funded warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to list the pre-funded warrants on the Nasdaq Global Market or any other national securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants will be limited.

**Holders of the pre-funded warrants will have no rights as shareholders until such holders exercise their pre-funded warrants and acquire our common shares.**

Until holders of the pre-funded warrants exercise their pre-funded warrants and acquire our common shares, such holders will have no rights with respect to the common shares underlying such pre-funded warrants.

#### USE OF PROCEEDS

We estimate that the net proceeds to us from this offering will be approximately \$234.7 million, or approximately \$269.9 million if the underwriters exercise in full their option to purchase additional common shares, based on an assumed public offering price of \$31.50 per common share, which is the last reported sale price of our common shares on the Nasdaq Global Market on October 4, 2021, and \$31.4999 per pre-funded warrant, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We will receive nominal proceeds, if any, from the exercise of the pre-funded warrants.

A \$1.00 increase or decrease in the assumed public offering price of \$31.50 per common share, which is the last reported sale price of our common shares on the Nasdaq Global Market on October 4, 2021, and \$31.4999 per pre-funded warrant would increase or decrease, as applicable, the net proceeds to us by approximately \$7.5 million, assuming that the number of common shares and pre-funded warrants offered by us (based on the assumed public offering price of \$31.50 per common share and \$31.4999 per pre-funded warrant) remains the same and after deducting the estimated underwriting commissions and estimated offering expenses payable by us. We may also increase or decrease the number of common shares and pre-funded warrants we are offering. An increase or decrease of 1,000,000 in the number of common shares and pre-funded warrants we are offering would increase or decrease, as applicable, the net proceeds to us from this offering by approximately \$29.6 million, assuming that the assumed public offering price remains the same and after deducting the estimated underwriting commissions and estimated offering expenses payable by us.

#### DILUTION

If you invest in our common shares or pre-funded warrants, your interest will be diluted immediately to the extent of the difference between the public offering price per common share or pre-funded warrant you will pay in this offering and the as adjusted net tangible book value per common share after this offering. Net tangible book value per common share represents our total tangible assets less total liabilities, divided by the number of common shares outstanding, as adjusted to reflect the assumed conversion of our outstanding Series 1 Preferred Shares as discussed below.

As of June 30, 2021, our net tangible book value was \$257.0 million, or \$6.10 per common share. After giving effect to our issuance and sale of an aggregate of approximately 7,936,507 common shares and pre-funded warrants in this offering at the assumed public offering price of \$31.50 per common share, which is the last reported sale price of our common shares on the Nasdaq Global Market on October 4, 2021, and \$31.4999 per pre-funded warrant, including common shares issuable upon exercise of the pre-funded warrants but excluding any resulting accounting impact associated therewith, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, the as adjusted net tangible book value as of June 30, 2021 would have been \$491.7 million, or \$9.82 per common share. This represents an immediate increase in as adjusted net tangible book value to existing shareholders of \$3.72 per common share and an immediate dilution to new investors purchasing common shares and pre-funded warrants in this offering of \$21.68 per common share.

The following table illustrates this per common share dilution to the new investors purchasing common shares in this offering:

Assumed public offering price per common share		\$	31.50
Net tangible book value per common share at June 30, 2021	\$	6.10	
Increase in net tangible book value per common share attributable to new investors purchasing common shares and pre-funded warrants in this offering		3.72	
As adjusted net tangible book value per common share after this offering	\$	9.82	
Dilution per common share to new investors in this offering		\$	21.68

If the underwriters exercise their option to purchase approximately 1,190,476 additional common shares in full, at the assumed public offering price of \$31.50 per common share, the as adjusted net tangible book value per share after giving effect to this offering would be \$10.28 per common share, representing an immediate increase in net tangible book value (including common shares issuable upon exercise of the pre-funded warrants but excluding any resulting accounting impact associated therewith, and after deducting estimated underwriting discounts and commissions and estimated expenses payable by us) to existing shareholders of \$4.18 per common share and immediate dilution in net tangible book value of \$21.22 per common share to new investors.

A \$1.00 increase (decrease) in the assumed public offering price of \$31.50 per share, which is the last reported sale price of our common shares on the Nasdaq Global Market on October 4, 2021, and \$31.4999 per pre-funded warrant would increase (decrease) the as adjusted net tangible book value as of June 30, 2021 by approximately \$7.5 million, or approximately \$0.15 per share, and increase (decrease) the dilution per share to new investors by approximately \$0.85 per share, including common shares issuable upon exercise of the pre-funded warrants but excluding any resulting accounting impact associated therewith, and assuming that the aggregate number of common shares and pre-funded warrants offered by us (based on the assumed public offering price of \$31.50 per common share and \$31.4999 per pre-funded warrant) remains the same and after deducting the estimated underwriting commissions and estimated offering expenses payable by us. An increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) the as adjusted net tangible book value by approximately \$29.6 million, or \$0.39 per share, and would decrease (increase) the dilution per share to new investors by approximately \$0.39 per share, including common shares issuable upon exercise of the pre-funded warrants but excluding any resulting accounting impact associated therewith, and assuming that the assumed public offering price remains the same and after deducting the estimated underwriting commissions and estimated offering expenses payable by us. The as adjusted information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

The foregoing table and calculations are based on 42,133,568 common shares outstanding as of June 30, 2021 which number includes 1,016,000 common shares issuable upon the conversion of 1,016,000 of our Series 1 Preferred Shares outstanding as of June 30, 2021, and unless otherwise indicated, assumes the full exercise of the pre-funded warrants to purchase common shares offered in this offering and excludes:

- 5,771,051 common shares issuable upon the exercise of outstanding options to purchase common shares as of June 30, 2021, at a weighted average exercise price of \$12.04 per common share;
- 275,337 common shares sold subsequent to June 30, 2021 pursuant to our license and collaboration agreement with Neurocrine Biosciences;
- 2,557,246 common shares reserved for future issuance as of June 30, 2021 under our Amended and Restated 2014 Equity Incentive Plan;
- 40,000 common shares issuable upon the exercise of warrants outstanding as of June 30, 2021, at a weighted-average exercise price of \$9.79 per share; and
- pre-funded warrants to purchase up to 1,081,081 common shares outstanding as of June 30, 2021, at an exercise price of \$0.0001 per share.

#### **DESCRIPTION OF PRE-FUNDED WARRANTS**

The following is a summary of certain terms and conditions of the pre-funded warrants being offered in this offering. The following description is subject in all respects to the provisions contained in the pre-funded warrants.

##### **Form**

The pre-funded warrants will be issued as individual warrant agreements to the purchasers. The form of pre-funded warrant will be filed as an exhibit to a Current Report on Form 8-K that we expect to file with the SEC.

##### **Term**

The pre-funded warrants will expire on the date the warrant is exercised in full.

## **Exercisability**

The pre-funded warrants are exercisable at any time after their original issuance. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full of the exercise price in immediately available funds for the number of common shares purchased upon such exercise. As an alternative to payment in immediately available funds, the holder may, in its sole discretion, elect to exercise the pre-funded warrant through a cashless exercise, in which the holder would receive upon such exercise the net number of common shares determined according to the formula set forth in the pre-funded warrant. No fractional common shares will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the last closing trading price of our common shares on the exercise date.

## **Exercise Limitations**

We may not effect the exercise of any pre-funded warrant, and a holder will not be entitled to exercise any portion of any pre-funded warrant that, upon giving effect to such exercise, would cause: (i) the aggregate number of common shares beneficially owned by such holder (together with its affiliates) to exceed 4.99% of the number of common shares outstanding immediately after giving effect to the exercise; or (ii) the combined voting power of our securities beneficially owned by such holder (together with its affiliates) to exceed 4.99% of the combined voting power of all of our securities outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder of a pre-funded warrant may increase or decrease such percentage to any other percentage not in excess of 19.99% upon at least 61 days' prior notice from the holder to us.

## **Exercise Price**

The exercise price of our common shares purchasable upon the exercise of the pre-funded warrants is \$0.0001 per share. The exercise price of the pre-funded warrants and the number of common shares issuable upon exercise of the pre-funded warrants is subject to appropriate adjustment in the event of certain share dividends and distributions, share splits, share combinations, reclassifications or similar events affecting our common shares, as well as upon any distribution of assets, including cash, shares or other property, to our shareholders.

## **Transferability**

Subject to the restrictions on transfer set forth in the pre-funded warrants and applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent.

## **Exchange Listing**

There is no established trading market for the pre-funded warrants, and we do not expect a market to develop. We do not intend to apply for the listing of the pre-funded warrants on the Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system.

## **Fundamental Transactions**

Upon the consummation of a fundamental transaction (as described in the pre-funded warrants, and generally including any reorganization, recapitalization or reclassification of our common shares, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common shares, or any person or group becoming the beneficial owner of 50% of the voting power of our outstanding common shares), the holders of the pre-funded warrants will be entitled to receive, upon exercise of the pre-funded warrants, the kind and amount of securities, cash or other property that such holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction, without regard to any limitations on exercise contained in the pre-funded warrants.

## **No Rights as a Shareholder**

Except by virtue of such holder's ownership of our common shares, the holder of a pre-funded warrant does not have the rights or privileges of a holder of our common shares, including any voting rights, until such holder exercises the pre-funded warrant.

## MATERIAL INCOME TAX CONSIDERATIONS

### U.S. Federal Income Tax Information for U.S. Holders

#### *Pre-Funded Warrants*

Although it is not entirely free from doubt, a pre-funded warrant is generally expected to be treated as a common share for U.S. federal income tax purposes and a holder of a pre-funded warrant should generally be taxed in the same manner as a holder of common shares. Accordingly, no gain or loss should be recognized upon the exercise of a pre-funded warrant and, upon exercise, the holding period of a pre-funded warrant should carry over to the common shares received. Similarly, the tax basis of a pre-funded warrant should carry over to the common share received upon exercise, increased by the exercise price (if applicable). Each holder of pre-funded warrants should consult his, her or its own tax advisor regarding the risks associated with the acquisition of pre-funded warrants pursuant to this offering (including potential alternative characterizations).

**If you are considering the purchase of our common shares or pre-funded warrants, you should consult your own tax advisors concerning the U.S. federal income tax consequences to you in light of your particular situation as well as any consequences arising under the laws of any other taxing jurisdiction.**

#### Canadian Federal Income Tax Information

The following summary describes, as of the date hereof, the principal Canadian federal income tax consequences under the Income Tax Act (Canada), or the Canadian Tax Act, generally applicable to a holder, or a Holder, who acquires our common shares (including on exercise of a pre-funded warrant) or pre-funded warrants and who, for the purposes of the Canadian Tax Act, and at all relevant times, beneficially owns the common shares or pre-funded warrants as capital property, and deals at arm's length with, and is not affiliated with, us or the underwriters. The common shares and pre-funded warrants will generally be considered to be capital property for this purpose unless either the Holder holds (or will hold) such securities in the course of carrying on a business of trading or dealing in securities, or the Holder has acquired (or will acquire) such securities in a transaction or transactions considered to be an adventure or concern in the nature of trade.

This summary is not applicable to: (a) a Holder that is a "financial institution," as defined in the Canadian Tax Act for purposes of the mark-to-market rules; (b) a Holder, an interest in which is or would be a "tax shelter investment" as defined in the Canadian Tax Act; (c) a Holder that is a "specified financial institution" as defined in the Canadian Tax Act; (d) a Holder that is a corporation that has elected in the prescribed form and manner and has otherwise met the requirements to use functional currency tax reporting as set out in the Canadian Tax Act; (e) a Holder that is a corporation resident in Canada, or a corporation that does not deal at arm's length (for purposes of the Canadian Tax Act) with a corporation resident in Canada, and is, or becomes, controlled by a non-resident person, or group of non-resident persons not dealing with each other at arm's length, for the purposes of the "foreign affiliate dumping" rules in section 212.3 of the Canadian Tax Act; or (f) a Holder that, with respect to the common shares, has or that has entered into a "synthetic disposition arrangement" or a "derivative forward agreement" as those terms are defined in the Canadian Tax Act. In addition, this summary does not address the deductibility of interest by a Holder of common shares or pre-funded warrants that has borrowed money or otherwise incurred debt in connection with the acquisition of common shares or pre-funded warrants. Any such Holder to which this summary does not apply should consult its own tax advisor.

This summary is based upon the current provisions of the Canadian Tax Act, the regulations adopted thereunder, or the Canadian Tax Regulations, and counsel's understanding of the current published administrative and assessing policies and practices of the Canada Revenue Agency. The summary also takes into account all specific proposals to amend the Canadian Tax Act and the Canadian Tax Regulations that have been publicly announced by or on behalf of the Minister of Finance (Canada) prior to the date hereof, or the Canadian Tax Proposals, and assumes that all such Canadian Tax Proposals will be enacted in the form proposed. No assurance can be given that the Canadian Tax Proposals will be enacted in the form proposed or at all. This summary does not otherwise take into account or anticipate any changes in law, administrative policy or assessing practice, whether by way of legislative, regulatory, judicial or administrative action or interpretation, nor does it address any provincial, territorial or foreign tax considerations.

**This summary is not exhaustive of all possible Canadian federal income tax considerations of acquiring common shares or pre-funded warrants. The summary is of a general nature only and is not intended to be, and should not be construed to be, legal, business, or tax advice to any prospective Holder. Prospective Holders should consult their own tax advisors as to the Canadian federal tax consequences, and the tax consequences of any other jurisdiction, applicable to them having regard to their own particular circumstances.**

All amounts calculated in a currency other than the Canadian dollar relating to the acquisition, holding and disposition of the common shares or pre-funded warrants must be converted into Canadian dollars based on the exchange rates determined in accordance with the Canadian Tax Act. The amount of dividends to be included in income, and capital gains and losses realized by a Holder, may be affected by fluctuations in the relevant exchange rates.

#### ***Exercise of Pre-funded Warrants***

The exercise of a pre-funded warrant to acquire a common share will be deemed not to constitute a disposition of property for purposes of the Canadian Tax Act. As a result, no gain or loss will be realized by a Holder upon the exercise of a pre-funded warrant to acquire a common share. When a pre-funded warrant is exercised, the Holder's cost of the common share acquired thereby will be equal to the aggregate of the Holder's adjusted cost base of such pre-funded warrant and the exercise price paid for the common share. The Holder's adjusted cost base of the pre-funded common share so acquired will be determined by averaging the cost of the common share with the adjusted cost base to the Holder of all common shares owned by the Holder as capital property immediately prior to such acquisition.

#### ***Residents of Canada***

The following discussion applies to Holders who, for the purposes of the Canadian Tax Act, and at all relevant times, are (or are deemed to be) residents of Canada, or Canadian Resident Holders.

Certain Canadian Resident Holders whose common shares might not otherwise qualify as capital property may, in certain circumstances, treat such common shares and every Canadian security, as defined in the Canadian Tax Act, owned or subsequently acquired by such holder as capital property by making an irrevocable election pursuant to subsection 39(4) of the Canadian Tax Act. Canadian Resident Holders contemplating making a subsection 39(4) election should consult their advisor for advice as to whether the election is available or advisable in their particular circumstances. This election does not apply to pre-funded warrants.

#### ***Dividends on the Common Shares***

Dividends received or deemed to be received on the common shares by a Canadian Resident Holder who is an individual (other than certain trusts) will be included in income and will be subject to the gross-up and dividend tax credit rules normally applicable under the Canadian Tax Act to taxable dividends received from "taxable Canadian corporations" (as defined in the Canadian Tax Act). We may designate all or a portion of such dividends as "eligible dividends" that are entitled to an enhanced gross-up and dividend tax credit regime. There may be limitations on our ability to designate dividends as "eligible dividends." We will notify our shareholders of any such designations at the appropriate times.

Dividends received or deemed to be received on the common shares by a Canadian Resident Holder that is a corporation will be included in its income and will generally be deductible in computing its taxable income. In certain circumstances, however, subsection 55(2) of the Canadian Tax Act may deem a dividend received (or deemed received) by a corporate Canadian Resident Holder to be proceeds of disposition or a capital gain. Corporate Canadian Resident Holders should consult their own tax advisers with respect to the application of these rules to their particular circumstances.

A Canadian Resident Holder that is a "private corporation" or a "subject corporation," each as defined in the Canadian Tax Act, may be liable under Part IV of the Canadian Tax Act to pay a refundable tax on dividends received or deemed to be received on the common shares to the extent such dividends are deductible in computing the Canadian Resident Holder's taxable income.

## *Dispositions of the Common Shares and Pre-funded Warrants*

A disposition, or a deemed disposition, of a common share (other than to us unless purchased by us in the open market in the manner in which shares are normally purchased by any member of the public in the open market) or a pre-funded warrant (other than on exercise thereof) by a Canadian Resident Holder will generally give rise to a capital gain (or a capital loss) equal to the amount by which the proceeds of disposition of the common share or pre-funded warrant, as the case may be, net of any reasonable costs of disposition, exceed (or are less than) the adjusted cost base of the common share or pre-funded warrant to the Canadian Resident Holder. For this purpose, the adjusted cost base to a Canadian Resident Holder of the common shares or pre-funded warrants will be determined at any time by averaging the cost of such common shares or pre-funded warrants with the adjusted cost base of any other common shares or pre-funded warrants owned by the Canadian Resident Holder as capital property at that time. Such capital gain (or capital loss) will be subject to the treatment described below under "Taxation of Capital Gains and Capital Losses."

### *Refundable Tax*

A Canadian Resident Holder that is throughout the year a "Canadian-controlled private corporation," as defined in the Canadian Tax Act, may be liable to pay a refundable tax on certain investment income, including taxable capital gains (as defined below), but excluding dividends or deemed dividends deductible in computing taxable income.

### *Taxation of Capital Gains and Capital Losses*

Generally, one-half of any capital gain (a taxable capital gain) realized by a Canadian Resident Holder for a taxation year must be included in the Canadian Resident Holder's income in the year. Subject to and in accordance with the provisions of the Canadian Tax Act, a Canadian Resident Holder is required to deduct one-half of any capital loss (an allowable capital loss) realized in the year from taxable capital gains realized in that year, and allowable capital losses in excess of taxable capital gains may be carried back and deducted in any of the three preceding taxation years, or carried forward and deducted in any subsequent year, from net taxable capital gains realized in such years (but not against other income) to the extent and under the circumstances described in the Canadian Tax Act. If the Canadian Resident Holder is a corporation, any such capital loss realized on the sale of a common share may in certain circumstances be reduced by the amount of any dividends which have been received or which are deemed to have been received on the common share. Similar rules may apply where a corporation is a member of a partnership or a beneficiary of a trust that owns shares, directly or indirectly through a partnership or a trust.

### *Minimum Tax*

Individuals, including certain trusts, may be subject to a minimum tax. Generally, dividends received or deemed to be received on the common shares and capital gains realized on the disposition of common shares may result in a Canadian Resident Holder being liable for minimum tax. Canadian Resident Holders should consult with their own tax advisors with respect to the potential application of the minimum tax.

### ***Non-Residents of Canada***

The following discussion applies to a Holder who, for the purposes of the Canadian Tax Act, and at all relevant times, is not (and is not deemed to be) resident in Canada and will not use or hold (and will not be deemed to use or hold) the common shares or pre-funded warrants in, or in the course of, carrying on a business or part of a business in Canada, or a Non-Resident of Canada Holder. In addition, this discussion does not apply to a Non-Resident of Canada Holder that carries on or is deemed to carry on, an insurance business in Canada and elsewhere or to an "authorized foreign bank," as defined in the Canadian Tax Act. Such Holders should consult their own tax advisors.

### *Dividends on the Common Shares*

Canadian withholding tax at a rate of 25% (subject to reduction under the provisions of any applicable income tax treaty or convention) will be payable on the gross amount of dividends on the common shares paid or credited, or deemed to be paid or credited, to a Non-Resident of Canada Holder. For instance, the rate of withholding tax applicable to a dividend paid on the common shares to a Non-Resident of Canada Holder who is a resident of the U.S. for purposes of the Canada-United States Tax Convention (1990), or the Convention, beneficially owns the dividend and qualifies for the full benefits of the Convention will generally be reduced to 15% or, if such a Non-Resident of Canada Holder is a corporation that owns at least 10% of our voting shares, to 5%. The Canadian withholding taxes will be deducted directly by us or our paying agent from the amount of the dividend otherwise payable and remitted to the Receiver General of Canada. Not all persons who are residents of the U.S. for purposes of the Convention will qualify for the benefits of the Convention. A Non-Resident of Canada Holder that is a resident of the U.S. is advised to consult its tax advisor in this regard. The rate of withholding tax on dividends may also be reduced under other bilateral income tax treaties or conventions to which Canada is a signatory.



A Non-Resident of Canada Holder will not be subject to tax under the Canadian Tax Act in respect of any capital gain realized by such Non-Resident of Canada Holder on a disposition, or deemed disposition, of the common shares or pre-funded warrants unless the common shares or pre-funded warrants constitute "taxable Canadian property," as defined in the Canadian Tax Act, of the Non-Resident of Canada Holder at the time of disposition and the holder is not entitled to an exemption under the applicable income tax treaty or convention. As long as the common shares are then listed on a "designated stock exchange" (which currently includes Nasdaq), the common shares and pre-funded warrants generally will not constitute taxable Canadian property of a Non-Resident of Canada Holder, unless (a) at any time during the 60-month period preceding the disposition: (i) one or any combination of (A) the Non-Resident of Canada Holder, (B) persons not dealing at arm's length with such Non-Resident of Canada Holder, and (C) partnerships in which the Non-Resident of Canada Holder or a person described in (B) holds a membership interest directly or indirectly through one or more partnerships, owned 25% or more of our issued shares of any class or series; and (ii) more than 50% of the fair market value of the common shares was derived, directly or indirectly, from one or a combination of real or immovable property situated in Canada, "Canadian resource properties," as such term is defined in the Canadian Tax Act, "timber resource properties," as such term is defined in the Canadian Tax Act, or options in respect of interests in, or for civil law rights in, any such properties whether or not the property exists, or (b) the common shares are otherwise deemed to be taxable Canadian property. If the common shares or pre-funded warrants are considered taxable Canadian property to a Non-Resident of Canada Holder, an applicable income tax treaty or convention may in certain circumstances exempt that Non-Resident of Canada Holder from tax under the Canadian Tax Act in respect of the disposition or deemed disposition of the common shares or pre-funded warrants. Non-Resident of Canada Holders whose common shares or pre-funded warrants are, or may be, taxable Canadian property should consult their own tax advisors for advice having regard to their particular circumstances.

As long as the common shares are listed at the time of their disposition or deemed disposition on a "recognized stock exchange" (which currently includes Nasdaq), as defined in the Canadian Tax Act, a Non-Resident of Canada Holder who disposes of common shares or pre-funded warrants, as the case may be, that are taxable Canadian property will not be required to satisfy the obligations imposed under section 116 of the Canadian Tax Act and, as such, the purchaser of such securities will not be required to withhold any amount on the purchase price paid. An exemption from such requirements may also be available in respect of such disposition if such securities are "treaty-exempt property," as defined in the Canadian Tax Act.

In the event that a common share or pre-funded warrant constitutes taxable Canadian property of a Non-Resident of Canada Holder and any capital gain that would be realized on the disposition or deemed disposition thereof is not exempt from tax under the Canadian Tax Act pursuant to an applicable income tax convention or treaty, the income tax consequences discussed under "Residents of Canada - Dispositions of the Common Shares and Pre-funded Warrants" and "Residents of Canada - Taxation of Capital Gains and Capital Losses" will generally apply to the Non-Resident of Canada Holder but any such Holder should consult its own tax advisor in this regard.

#### **UNDERWRITING**

The underwriters will purchase the pre-funded warrants pursuant to the underwriting agreement described in the Preliminary Prospectus Supplement on terms generally consistent with those applicable to the common shares being sold in the offering. The per share underwriting discounts and commissions for the pre-funded warrants will be equal to the per share underwriting discounts and commissions on the common shares sold in the offering.

## GENERAL

Additional conforming changes are hereby made to the Preliminary Prospectus Supplement to reflect the changes described in this free writing prospectus. All terms of the Preliminary Prospectus Supplement applicable to our common shares will be applicable to the common shares underlying the pre-funded warrants upon issuance.

**Xenon Pharmaceuticals Inc. has filed an automatically effective registration statement (including a preliminary prospectus supplement dated October 4, 2021 and the accompanying base prospectus) with the SEC for the offering to which this communication relates. Before you invest, you should read the preliminary prospectus supplement and the accompanying base prospectus and other documents Xenon Pharmaceuticals Inc. has filed with the SEC for more complete information about Xenon Pharmaceuticals Inc. and the offering. You may get these documents for free by visiting EDGAR on the SEC website at [www.sec.gov](http://www.sec.gov). Alternatively, copies may be obtained from: Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022, or by email at [Prospectus\\_Department@Jefferies.com](mailto:Prospectus_Department@Jefferies.com), or by phone at (877) 821-7388; SVB Leerink LLC, Attention: Syndicate Department, 53 State Street, 40th Floor, Boston, MA 02109, by telephone at (800) 808-7525, ext. 6105, or by email at [syndicate@svbleerink.com](mailto:syndicate@svbleerink.com); Stifel, Nicolaus & Company, Incorporated, One Montgomery Street, Suite 3700, San Francisco, CA 94104, Attn: Syndicate, or by phone at (415) 364-2720, or by email at [syndprospectus@stifel.com](mailto:syndprospectus@stifel.com); or RBC Capital Markets, LLC, Attention: Equity Capital Markets, 200 Vesey Street, New York, NY 10281, by telephone at 877-822-4089, or by email at [equityprospectus@rbccm.com](mailto:equityprospectus@rbccm.com).**