

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

**Kiora Pharmaceuticals, Inc.**

*(Exact name of registrant as specified in its charter)*

Delaware

98-0443284

(State or other jurisdiction of  
incorporation or organization)

(I.R.S. Employer  
Identification Number)

332 Encinitas Boulevard, Suite 102  
Encinitas, CA 92024

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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**Brian M. Strem, Ph.D., Chief Executive Officer**  
Kiora Pharmaceuticals, Inc.  
332 Encinitas Boulevard, Suite 102  
Encinitas, CA 92024

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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***With copies to:***

**Robert A. Pettit, Esq.**  
**Burns & Levinson LLP**  
**125 High Street**  
**Boston, MA 02110**  
**(617) 345-3000**

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer:	<input type="checkbox"/>	Accelerated filer:	<input type="checkbox"/>
Non-accelerated filer:	<input type="checkbox"/>	Smaller reporting company:	<input checked="" type="checkbox"/>
		Emerging growth company:	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act

**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

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**The information in this prospectus is not complete and may be changed. The selling shareholders may not sell the securities until the Registration Statement filed with the Securities and Exchange Commission, of which this prospectus is a part, is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.**

**Subject to Completion, dated February 28, 2024**

## PROSPECTUS



**KIORA PHARMACEUTICALS, INC.**

**76,528,829 Shares of Common Stock**

This prospectus relates to the possible resale, from time to time, by the selling stockholders identified in this prospectus of up to (i) 15,800,000 shares of our common stock, par value \$0.01 per share (the "Common Stock"), initially issued in a private placement on February 5, 2024 (the "Private Placement"), (ii) 11,354,237 shares of Common Stock underlying pre-funded warrants issued in the Private Placement, (iii) 24,687,296 shares of Common Stock underlying Tranche A common stock purchase warrants issued in the Private Placement, and (iv) 24,687,296 shares of Common Stock underlying Tranche B common stock purchase warrants issued in the Private Placement.

The selling stockholders may offer the shares from time to time as each selling stockholder may determine through public or private transactions or through other means described in the section entitled "Plan of Distribution" or a supplement to this prospectus. Each selling stockholder may also sell shares under Rule 144 under the Securities Act of 1933, as amended, if available, rather than under this prospectus.

The registration of these shares does not necessarily mean that any holders will sell any of their shares or exercise their warrants. We are not offering for sale any shares of our Common Stock pursuant to this prospectus. We will not receive any proceeds from the sale of these shares. We will, however, receive cash proceeds equal to the total exercise price of warrants that are exercised for cash.

Our Common Stock is listed on The Nasdaq Capital Market under the symbol "KPRX." On February 27, 2024, the closing price for our Common Stock, as reported on The Nasdaq Capital Market, was \$0.681 per share.

**Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained in this prospectus beginning on page 7, and under similar headings in the other documents that are incorporated by reference into this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

The date of this Prospectus is \_\_\_\_\_, 2024.

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission (the "SEC") pursuant to which the selling stockholders named herein may, from time to time, offer and sell or otherwise dispose of the securities covered by this prospectus. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or securities are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in this prospectus, including the Information Incorporated by Reference herein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you under the captions "Where You Can Find More Information" and "Incorporation of Information by Reference" in this prospectus.

Neither we nor the selling stockholders have authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any of our securities other than the securities covered hereby, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy any securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about, and to observe, any restrictions as to the offering and the distribution of this prospectus applicable to those jurisdictions.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We have proprietary rights to trademarks used in this prospectus, including Kiora®. Solely for our convenience, trademarks and trade names referred to in this prospectus may appear without the "®" or "™" symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent possible under applicable law, our rights or the rights to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Each trademark, trade name, or service mark of any other company appearing in this prospectus is the property of its respective holder.

## PROSPECTUS SUMMARY

*The following summary highlights information contained elsewhere in this prospectus. It may not contain all of the information that is important to you. You should read the entire prospectus carefully, especially the discussion regarding the risks of investing in our securities under the heading "Risk Factors," before investing in our securities. All references to "Company" "we," "our" or "us" refer solely to Kiora Pharmaceuticals, Inc. and its subsidiaries and not to the persons who manage us or sit on our Board of Directors (the "Board").*

### Overview

We are a specialty clinical-stage pharmaceutical company developing and commercializing products for the treatment of orphan retinal diseases.

Our lead product is KIO-301 with an initial focus on patients with later stages of disease progression due to Retinitis Pigmentosa (any and all sub-forms). KIO-301 is a potential vision-restoring small molecule that acts as a "photoswitch" specifically designed to restore vision in patients with inherited and age-related degenerative retinal diseases. The molecule is specifically designed to restore the eyes' ability to perceive and interpret light in visually impaired patients. It selectively enters viable downstream retinal ganglion cells (no longer receiving electrical input due to degenerated rods and cones) and is intended to turn them into light sensing cells, capable of signaling the brain as to the presence or absence of light. On March 17, 2022, we were granted Orphan Drug Designation by the United States ("U.S.") Food and Drug Administration ("FDA") for the Active Pharmaceutical Ingredient ("API") in KIO-301. KIO-301 (formerly known as B-203) was acquired through the Bayon transaction which closed October 21, 2021. We initiated a Phase 1b clinical trial in the third quarter of 2022.

Based on initial results of the Phase 1b trial, we plan to expand development of KIO-301 to treat patients with late stages of Choroideremia and Stargardt disease. These diseases have a similar underlying late-stage pathology as retinitis pigmentosa, hence the mechanism of action of KIO-301 could potentially provide a similar benefit to these patients.

We are also planning to develop KIO-104 for the treatment of Posterior Non-Infectious Uveitis, a rare T cell-mediated, intraocular inflammatory disease. KIO-104 is a next generation, non-steroidal, immuno-modulatory, small-molecule inhibitor of Dihydroorotate Dehydrogenase ("DHODH") with what we believe to be best-in-class picomolar potency and a validated immune modulating mechanism designed to overcome the off-target side effects and safety issues associated with commercially available DHODH inhibitors. KIO-104 is formulated for intravitreal delivery, and is ideally suited to suppress overactive T-cell activity to treat the underlying condition. Data from a previous Phase 1b/2a study, reported in October 2022, showed that a single injection of KIO-104 decreased intraocular inflammation and improved visual acuity significantly for the duration of the study. Further, there is evidence of reduced Cystoid Macular Edema from baseline.

We have two additional assets, KIO-101 and KIO-201, that we are currently seeking to partner. KIO-101 is an ophthalmic topical eyedrop formulation that uses the same active compound in KIO-104. KIO-201 is a modified form of the natural polymer hyaluronic acid, designed to protect the ocular surface to permit re-epithelialization of the cornea and improve and maintain ocular surface integrity. KIO-201 has unique properties that help hydrate and protect the ocular surface. We completed a Phase 2 clinical trial in patients with Persistent Corneal Epithelial Defects ("PCEs").

We will need additional financing to support our continuing operations. We will seek to fund our operations through public or private equity, debt financings, license and development agreements, or other sources, which may include collaborations with third parties. Adequate additional financing may not be available to us on acceptable terms, or at all. Our failure to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. These conditions raise

substantial doubt about our ability to continue as a going concern. We will need to generate significant revenue to achieve profitability, and we may never do so.

Throughout our history, we have not generated significant revenue. We have never been profitable and from inception through September 30, 2023, our losses from operations have aggregated \$144.7 million. Our net loss was \$10.2 million and \$11.1 million for the nine months ended September 30, 2023 and 2022, respectively. We expect to incur significant expenses and increasing operating losses for the foreseeable future as we continue the development and clinical trials of and seek regulatory approval for our product candidates. If we obtain regulatory approval for our product candidates, we expect to incur significant expenses in order to create an infrastructure to support their commercialization including sales, marketing, and distribution functions.

### **Recent Developments**

#### *License Agreement*

On January 25, 2024, we entered into an Exclusive License and Development Agreement with Théa Open Innovation SAS ("TOI") with respect to KIO-301. Under the agreement, we granted to TOI an exclusive, sublicensable license to develop, manufacture, commercialize, and file for regulatory approvals with respect to KIO-301 throughout the world except for certain countries in Asia for use in the field of retinitis pigmentosa and/or any other disease in ophthalmology.

We will be primarily responsible for the design and implementation of clinical development of KIO-301 through phase 2, for which we will be reimbursed by TOI subject to a maximum amount. TOI will be responsible at its own cost for phase 3 clinical trials and for securing regional marketing authorizations. Upon approval in respective regions, TOI will be responsible at its own cost for all commercial activities, including sales, marketing and market access.

Under the Agreement, TOI paid to us an up-front payment of \$16.0 million. We are eligible to receive milestone payments totaling up to approximately \$285.0 million, upon and subject to the achievement of certain specified clinical development, regulatory and commercial milestones. In addition, we are eligible to receive tiered royalties of between a high single digit to low twenty percent range based on a specified percentage of net sales of KIO-301 in the territory, subject to adjustment in certain circumstances. Either party may terminate the agreement in its entirety upon certain customary events.

#### *Development of KIO-101 and KIO-201*

In August 2023, we made a strategic decision to stop development leading to commercialization of KIO-101 and KIO-201 and are seeking partnership to continue future development. As such, as of September 30, 2023, the estimated fair value of the KIO-101 and KIO-201 assets was less than their carrying value resulting in the realization of an impairment loss of \$1.9 million. We also recently expanded our KIO-301 program into two new diseases, Choroideremia and Stargardt disease.

#### *Private Placement*

On January 31, 2024, we entered into a securities purchase agreement with certain institutional investors, pursuant to which we issued and sold to the investors (i) 15,800,000 shares of Common Stock, (ii) pre-funded Common Stock purchase warrants to purchase an aggregate of up to 11,354,237 shares of Common Stock at an exercise price of \$0.0001 per share, (iii) Tranche A Common Stock purchase warrants to purchase up to 24,687,296 shares of Common Stock at an exercise price of \$0.6076 per share, and (iv) Tranche B Common Stock purchase warrants to purchase up to 24,687,296 shares of Common Stock at an exercise price of \$0.6076 per share. The combined purchase price for each share of Common Stock, together with the accompanying portion of a Tranche A warrant and Tranche B warrant, was \$0.5524 and the combined purchase price for each pre-funded warrant, together with the accompanying portion of a Tranche A warrant and Tranche B warrant, was \$0.5523, which price represents the "Minimum Price" in accordance with Nasdaq Listing Rule 5635(d), for aggregate gross proceeds at closing of approximately \$15.0 million and potential future warrant exercise gross proceeds of approximately \$30.0 million. The closing of the Private placement occurred on February 5, 2024.

The Tranche A warrants will be exercisable from the date when the shareholders of the Company approve the exercise of such warrants pursuant to Nasdaq listing rules and the increase in authorized shares under the Company's restated certificate of incorporation sufficient to permit the issuance of the underlying shares (the "Shareholder Approval") until the earlier of (i) the five year anniversary of issuance and (ii) 30 days after we announce topline data from a Phase 2 clinical trial (ABACUS-2) of KIO-301 in retinitis pigmentosa (RP) and, following such announcement, the daily volume weighted average price of our Common Stock equals or exceeds \$1.1048 for 30 consecutive trading days. The Tranche B warrants will be exercisable from the date of the Shareholder Approval until the earlier of (i) the five year anniversary of issuance and (ii) 30 days after we announce topline data from a Phase 2 clinical trial of KIO-104 for treatment in posterior non-infectious uveitis and, following such announcement, the daily volume weighted average price of our Common Stock equals or exceeds \$1.3810 for 30 consecutive trading days. To the extent that the exercise of a Tranche A warrant or Tranche B warrant would result in the holder beneficially owning greater than 4.99% (or, at the election of the holder, greater than 9.99%) of our outstanding Common Stock immediately following such exercise, the holder will instead receive pre-funded warrants in substantially the same form as the pre-funded warrants issued at closing.

The pre-funded warrants will be exercisable from the date of issuance until exercised in full, and may not be exercised to the extent that immediately following such exercise, the holder would beneficially own greater than 4.99% (or, at the election of the holder, greater than 9.99%) of our outstanding Common Stock.

The Securities Purchase Agreement requires us to file a registration statement registering the resale of the securities issued in the Private Placement and issuable upon exercise of the warrants issued in the Private Placement within 30 days following the date of the Securities Purchase Agreement. If a resale registration statement covering those securities is not effective and available at the time of exercise, the Tranche A warrants and the Tranche B warrants may be exercised by means of a "cashless" exercise formula. The pre-funded warrants may be exercised by means of a "cashless" exercise formula at any time while outstanding. The warrants do not contain any Black Scholes cash payment obligations, any "price protection" anti-dilution protection or any "price reset" provisions pursuant to which the exercise



price of the warrants is subject to adjustment or reset at a future date or upon the occurrence of specified or contingent events directly or indirectly related to our business or the market prices for the Common Stock, or upon any future issuance or sale by us of shares of capital stock or securities exercisable or exchangeable for or convertible into shares of our capital stock at exercise or conversion prices below the exercise price of the warrants, other than standard pro rata adjustments for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction that would impact our Common Stock generally.

This prospectus relates to the resale of up to (i) 15,800,000 shares of Common Stock, (ii) 11,354,237 shares of Common Stock underlying pre-funded warrants, (iii) 24,687,296 shares of Common Stock underlying Tranche A warrants, and (iv) 24,687,296 shares of Common Stock underlying Tranche B warrants, in each case issued in the Private Placement. The Tranche A warrants and Tranche B warrants will not be exercisable until the Shareholder Approval is obtained.

### **Our Corporate Information**

Kiora Pharmaceuticals, Inc. was formed in Delaware on December 26, 2004 under the name EyeGate Pharmaceuticals, Inc. On November 8, 2021, we completed a merger of our wholly owned Delaware subsidiary, Kiora Pharmaceuticals, Inc. (incorporated in October 2021) into EyeGate Pharmaceuticals, Inc., which merger resulted in the amendment of our restated certificate of incorporation to change our name to “Kiora Pharmaceuticals, Inc.” effective November 8, 2021 (the “Name Change”). In connection with the name change, we changed our symbol on the Nasdaq Capital Market to “KPRX” and began using a new CUSIP number for shares of our common stock (49721T101) effective at the market open on November 8, 2021. We were originally incorporated in 1998 under the name of Optis France S.A. in Paris, France. We have four wholly owned subsidiaries: Jade Therapeutics, Inc., Kiora Pharmaceuticals, GmbH (formerly known as Panoptes Pharma Ges.m.b.H), Bayon Therapeutics, Inc., and Kiora Pharmaceuticals Pty Ltd (formerly known as Bayon Therapeutics Pty Ltd). Our former subsidiary, EyeGate Pharma S.A.S. was dissolved effective December 31, 2020. Our principal executive offices are located at 332 Encinitas Boulevard, Suite 102, Encinitas, California 92024, and our telephone number is (858) 224-9600. Our website address is [www.kiorapharma.com](http://www.kiorapharma.com). Our website and the information contained in, or accessible through, our website will not be deemed to be incorporated by reference into this prospectus and does not constitute part of this prospectus. You should not rely on any such information in making your decision whether to purchase our securities.

## THE OFFERING

We are registering for resale by the selling stockholders named herein an aggregate of 76,528,829 shares of our Common Stock as described below.

Securities being offered:	76,528,829 shares of our Common Stock, including (i) 15,800,000 shares of Common Stock issued to the selling stockholders in the Private Placement, (ii) 11,354,237 shares of Common Stock underlying pre-funded warrants issued in the Private Placement, (iii) 24,687,296 shares of Common Stock underlying Tranche A common stock purchase warrants issued to the selling stockholders in the Private Placement, subject to receipt of the Shareholder Approval, and (iv) 24,687,296 shares of Common Stock underlying Tranche B common stock purchase warrants issued to the selling stockholders in the Private Placement, subject to receipt of the Shareholder Approval.
Use of proceeds:	We will not receive any of the proceeds from the sale or other disposition of shares of our Common Stock by the selling stockholders. We may receive proceeds upon any exercise for cash of outstanding warrants, in which case such proceeds will be used for clinical trials, for working capital and other general corporate purposes. See "Use of Proceeds" on page <a href="#">11</a> .
Market for common stock:	Our Common Stock is listed on The Nasdaq Capital Market under the symbol "KPRX." On February 27, 2024, the last reported sale price of our Common Stock on The Nasdaq Capital Market was \$0.681. The warrants issued in the Private Placement are not listed on Nasdaq, any national securities exchange or any other nationally recognized trading system.
Risk Factors	Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page <a href="#">7</a> of this prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of information that should be considered in connection with an investment in our securities.

## RISK FACTORS

*Investing in our securities involves a high degree of risk. You should carefully consider the risks described herein and in the documents incorporated by reference in this prospectus and any prospectus supplement, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described herein and in the documents incorporated herein by reference, including (i) our most recent annual report on Form 10-K which is on file with the SEC and is incorporated herein by reference and (ii) other documents we file with the SEC that are deemed incorporated by reference into this prospectus.*

### ***A sale of a substantial number of shares of common stock by the selling stockholders could cause the price of our common stock to decline.***

The securities that may be resold by the selling stockholders pursuant to this prospectus, assuming receipt of the Shareholder Approval and without regard to beneficial ownership limitations contained in the warrants, represent approximately 77% of the total outstanding shares of our common stock as of February 27, 2024, and, following the effectiveness of the registration statement of which this prospectus forms a part, such securities may be sold by the selling stockholders in the public market without restriction (subject, with respect to the Tranche A and Tranche B common stock purchase warrants, to receipt of the Shareholder Approval). If the selling stockholders sell, or the market perceives that the selling stockholders intend to sell for various reasons, substantial amounts of such securities in the public market, the price of our Common Stock may decline. Additionally, such conditions may make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate.

### ***We have received a notice from Nasdaq of non-compliance with its minimum bid price rules.***

On July 18, 2023, we received a written notification (the "Notice Letter") from Nasdaq indicating that we were not in compliance with Nasdaq Listing Rule 5550(a)(2), as the closing bid price for our common stock was below the \$1.00 per share requirement for the last 30 consecutive business days. The Notice Letter stated that we had 180 calendar days, or until January 15, 2024 (the "Initial Compliance Period"), to regain compliance with the minimum bid price requirement. To regain compliance with the minimum bid price requirement, the closing bid price of our common stock must be at least \$1.00 per share for a minimum of 10 consecutive trading days during this 180-day compliance period, unless the Nasdaq staff exercises its discretion to extend this period pursuant to Nasdaq Listing Rule 5810(c)(3)(H).

On January 16, 2024, Nasdaq notified us in writing that while we had not regained compliance with the Bid Price Rule, we are eligible for an additional 180-day compliance period, or until July 15, 2024, to regain compliance with the Bid Price Rule. Nasdaq's determination was based on us having met the continued listing requirement for market value of publicly held shares and all other applicable requirements for initial listing on The Nasdaq Capital Market, with the exception of the bid price requirement, and on our written notice to Nasdaq of our intention to cure the deficiency during the second compliance period by effecting a reverse stock split, if necessary.

We intend to actively monitor the closing bid price of our common stock and are evaluating available options to regain compliance with the minimum bid price requirement. There can be no assurance that we will be able to regain compliance with the minimum bid price requirement or that we will otherwise remain in compliance with the other listing standards for The Nasdaq Capital Market. A delisting of our common

stock would have an adverse effect on the market liquidity of our common stock and, as a result, the market price for our common stock could become more volatile. Further, a delisting also could make it more difficult for us to raise additional capital.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains, and the documents incorporated herein by reference contain, forward-looking statements that involve risks and uncertainties. The forward-looking statements are contained principally in the sections of this prospectus and the documents incorporated herein by reference under the captions "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "objective," "intend," "should," "seek," "aim," "think," "optimistic," "strategy," "goals," "sees," "new," "guidance," "future," "continue," "drive," "growth," "long-term," "develop," "possible," "emerging," "opportunity," "pursue," "could," "can," "would," "expect," "believe," "anticipate," "project," "target," "design," "estimate," "predict," "potential," "plan" or the negative of these terms, and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- the timing and success of preclinical studies and clinical trials conducted by us and our development partners;
- the ability to obtain and maintain regulatory approval of our product candidates, and the labeling for any approved products;
- the scope, progress, expansion, and costs of developing and commercializing our product candidates;
- the size and growth of the potential markets for our product candidates and the ability to serve those markets;
- our expectations regarding our expenses and revenue, the sufficiency of our cash resources and needs for additional financing;
- the rate and degree of market acceptance of any of our product candidates;
- our expectations regarding competition;
- our anticipated growth strategies;
- our ability to attract or retain key personnel;
- our ability to establish and maintain development partnerships;
- our expectations regarding federal, state and foreign regulatory requirements;
- regulatory developments in the U.S. and foreign countries;
- our ability to obtain and maintain intellectual property protection for our product candidates;
- the anticipated trends and challenges in our business and the market in which we operate;
- the impact of the evolving COVID-19 pandemic; and
- our use of proceeds from this offering.

Any forward-looking statement made by us in this prospectus speaks only as of the date on which it is made. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we do not plan to

publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

## USE OF PROCEEDS

We will receive no proceeds from the sale of shares of Common Stock by the selling stockholders.

A portion of the shares of Common Stock covered by this prospectus are issuable upon exercise of warrants issued to the selling stockholders. The exercise price of the outstanding warrants is \$0.6076 per share with respect to the Tranche A and Tranche B common stock purchase warrants and \$0.0001 with respect to the pre-funded warrants. The exercise price and number of shares of Common Stock issuable upon exercise of the warrants may be adjusted in certain circumstances, including stock splits or dividends, mergers, or reclassifications or similar events. Upon any exercise of outstanding warrants, the applicable selling stockholders will pay us the exercise price.

To the extent we receive proceeds from the cash exercise of outstanding warrants, we intend to use the proceeds to support our operations, including for clinical trials, for working capital and for other general corporate purposes. We have not yet determined the amount of net proceeds to be used specifically for any of the foregoing purposes.

The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our clinical trials, as well as the amount of cash used in our operations. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of any net proceeds from warrant exercises.

Based upon our historical and anticipated future growth and our financial needs, we may engage in additional financings of a character and amount that we determine as the need arises. We may raise additional capital through additional public or private financings, strategic partnerships, the incurrence of debt and other available sources.

## SELLING STOCKHOLDERS

The Common Stock being offered by the selling shareholders are those previously issued to the selling shareholders, and those issuable to the selling shareholders, upon exercise of the warrants. For additional information regarding the issuances of those shares of Common Stock and warrants, see “Prospectus Summary—Recent Developments—Private Placement” above. We are registering the shares of Common Stock in order to permit the selling shareholders to offer the shares for resale from time to time. Except for the ownership of the shares of Common Stock and the warrants and except as disclosed herein, the selling shareholders have not had any material relationship with us within the past three years.

The table below lists the selling shareholders and other information regarding the beneficial ownership of the shares of Common Stock by each of the selling shareholders. The second column lists the number of shares of Common Stock beneficially owned by each selling shareholder, based on its ownership of the shares of Common Stock and warrants, as of February 28, 2024, assuming exercise of the warrants held by the selling shareholders on that date, without regard to any limitations on exercises, and assuming that the Shareholder Approval has been received. The third column lists the shares of Common Stock being offered by this prospectus by the selling shareholders.

In accordance with the terms of a securities purchase agreement with the selling shareholders, this prospectus generally covers the resale of the sum of (i) the number of shares of Common Stock issued to the selling shareholders in the “Prospectus Summary—Recent Developments—Private Placement” described above and (ii) the maximum number of shares of Common Stock issuable upon exercise of the related warrants, determined as if the outstanding warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the registration right agreement, without regard to any limitations on the exercise of the warrants and assuming that the Shareholder Approval has been obtained. The fourth column assumes the sale of all of the shares offered by the selling shareholders pursuant to this prospectus.

Under the terms of the warrants, a selling shareholder may not exercise the warrants to the extent such exercise would cause such selling shareholder, together with its affiliates and attribution parties, to beneficially own a number of shares of common stock which would exceed 4.99% or 9.99%, as applicable, of our then outstanding Common Stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of such warrants which have not been exercised. Additionally, the Tranche A and Tranche B warrants may not be exercised until the Shareholder Approval is obtained. The number of shares in the second and fourth columns do not reflect these limitations. The selling shareholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.”



<b>Name of Selling Shareholder</b>	<b>Number of shares of Common Stock Owned Prior to Offering</b>	<b>Maximum Number of shares of Common Stock to be Sold Pursuant to this Prospectus (1)</b>	<b>Number of shares of Common Stock Owned After Offering</b>
ADAR1 Partners, LP (2)	13,527,848	13,527,848	0
AIGH Investment Partners, LP (3)	7,417,770	7,417,770	0
WVP Emerging Manager Onshore Fund, LLC – Optimized Equity Series (4)	522,796	522,796	0
WVP Emerging Manager Onshore Fund, LLC – AIGH Series (5)	1,923,490	1,923,490	0
Alyeska Master Fund, LP (6)	8,325,931	8,325,931	0
Lincoln Park Capital Fund, LLC (7)	4,652,936	2,536,472	2,116,464
Nantahala Capital Partners Limited Partnership (8)	2,074,834	2,074,834	0
NCP RFM LP (9)	1,849,594	1,849,594	0
Blackwell Partners LLC – Series A (10)	6,221,456	6,221,456	0
Investor Company ITF Rosalind Master Fund (11)	6,482,094	6,482,094	0
Lytton-Kambara Foundation (12)	6,200,264	6,200,264	0
Stonepine Capital, LP (13)	10,145,886	10,145,886	0
Velan Capital Master Fund, LP (14)	9,300,394	9,300,394	0

- (1) Includes shares of Common Stock issuable upon exercise of warrants issued in the Private Placement determined as if the outstanding warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the registration right agreement, without regard to any limitations on the exercise of the warrants and assuming that the Shareholder Approval has been obtained.
- (2) ADAR1 Partners, LP holds (i) 1,100,000 shares of Common Stock, (ii) pre-funded warrants to purchase 3,700,000 shares of common stock, (iii) Tranche A common stock purchase warrants to purchase up to 4,363,924 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 4,363,924 shares of common stock. Daniel Schneeberger is the Managing Member of the General Partner of ADAR1 Partners, LP and thereby may be deemed to beneficially own the securities held by ADAR1 Partners, LP. The principal business address of ADAR1 Partners, LP is 3503 Wild Cherry Drive, Building 9, Austin, TX 78738.
- (3) AIGH Investment Partners, LP holds (i) 1,432,000 shares of Common Stock, (ii) pre-funded warrants to purchase 1,200,000 shares of common stock, (iii) Tranche A common stock purchase warrants to purchase up to 2,392,885 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 2,392,885 shares of common stock. AIGH Capital Management, LLC serves as an advisor or sub-advisor with respect to shares securities held by AIGH Investment Partners, LP. Orin Hirschman is the Managing Member of AIGH Capital

Management, LLC. The principal place of business of AIGH Investment Partners, LP is 6006 Berkeley Avenue, Baltimore, MD 21209.

- (4) WVP Emerging Manager Onshore Fund, LLC – Optimized Equity Series holds (i) 185,500 shares of Common Stock, (ii) Tranche A common stock purchase warrants to purchase up to 168,648 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 168,648 shares of common stock. AIGH Capital Management, LLC serves as an advisor or sub-advisor with respect to shares securities held by WVP Emerging Manager Onshore Fund, LLC – Optimized Equity Series. Orin Hirschman is the Managing Member of AIGH Capital Management, LLC. The principal place of business of WVP Emerging Manager Onshore Fund, LLC - Optimized Equity Series is 6006 Berkeley Avenue, Baltimore, MD 21209.
- (5) WVP Emerging Manager Onshore Fund, LLC – AIGH Series holds (i) 682,500 shares of Common Stock, (ii) Tranche A common stock purchase warrants to purchase up to 620,495 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 620,495 shares of common stock. AIGH Capital Management, LLC serves as an advisor or sub-advisor with respect to shares securities held by WVP Emerging Manager Onshore Fund, LLC – AIGH Series. Orin Hirschman is the Managing Member of AIGH Capital Management, LLC. The principal place of business of WVP Emerging Manager Onshore Fund, LLC - AIGH Series is 6006 Berkeley Avenue, Baltimore, MD 21209.
- (6) Alyeska Master Fund, LP holds (i) 2,200,000 shares of Common Stock, (ii) pre-funded warrants to purchase 754,237 shares of common stock, (iii) Tranche A common stock purchase warrants to purchase up to 2,685,847 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 2,685,847 shares of common stock. Alyeska Investment Group, L.P., the investment manager of Alyeska Master Fund, L.P., has voting and investment control of the shares held by the Selling Shareholder. Anand Parekh is the Chief Executive Officer of Alyeska Investment Group, L.P. and may be deemed to be the beneficial owner of such shares. Mr. Parekh, however, disclaims any beneficial ownership of the shares held by the Selling Shareholder. The registered address of Alyeska Master Fund, L.P. is at c/o Maples Corporate Services Limited, P.O. Box 309, Ugland House, South Church Street George Town, Grand Cayman, KY1-1104, Cayman Islands. Alyeska Investment Group, L.P. is located at 77 W. Wacker, Suite 700, Chicago IL 60601.
- (7) Lincoln Park Master Fund, LLC (“Lincoln Park”) holds (i) 900,000 shares of Common Stock, (ii) Tranche A common stock purchase warrants to purchase up to 818,236 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 818,236 shares of common stock. Josh Scheinfeld and Jonathan Cope, the principals of Lincoln Park, are deemed to be beneficial owners of all of the shares of Common Stock owned directly by Lincoln Park. Messrs. Scheinfeld and Cope have shared voting and disposition power. The principal business address for Lincoln Park is 440 N. Wells St., Suite 410, Chicago, IL 60654.
- (8) Nantahala Capital Partners Limited Partnership holds (i) 388,550 shares of Common Stock, (ii) pre-funded warrants to purchase 347,650 shares of common stock, (iii) Tranche A common stock purchase warrants to purchase up to 669,317 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 669,317 shares of common stock. Nantahala Capital Management, LLC is a Registered Investment Adviser and has been delegated the legal power to vote and/or direct the disposition of such securities on behalf of the selling stockholder as a General Partner, Investment Manager, or Sub-Advisor and would be considered the beneficial owner of such securities. The above shall not be deemed to be an admission by the record owners or the selling stockholder that they are themselves beneficial owners of these securities for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or any other purpose. Wilmot Harkey and Daniel Mack are managing members of Nantahala Capital Management, LLC and may be deemed to have voting and dispositive power over the shares held by the selling stockholder. The principal business address for

Nantahala Capital Partners Limited Partnership is 130 Main St. 2nd Floor, New Canaan, CT 06840.

- (9) NCP RFM LP holds (i) 346,370 shares of Common Stock, (ii) pre-funded warrants to purchase 309,910 shares of common stock, (iii) Tranche A common stock purchase warrants to purchase up to 596,657 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 596,657 shares of common stock. Nantahala Capital Management, LLC is a Registered Investment Adviser and has been delegated the legal power to vote and/or direct the disposition of such securities on behalf of the selling stockholder as a General Partner, Investment Manager, or Sub-Advisor and would be considered the beneficial owner of such securities. The above shall not be deemed to be an admission by the record owners or the selling stockholder that they are themselves beneficial owners of these securities for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or any other purpose. Wilmot Harkey and Daniel Mack are managing members of Nantahala Capital Management, LLC and may be deemed to have voting and dispositive power over the shares held by the selling stockholder. The principal business address for NCP RFM LP is 130 Main St. 2nd Floor, New Canaan, CT 06840.
- (10) Blackwell Partners LLC – Series A holds (i) 1,165,080 shares of Common Stock, (ii) pre-funded warrants to purchase 1,042,440 shares of common stock, (iii) Tranche A common stock purchase warrants to purchase up to 2,006,968 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 2,006,968 shares of common stock. Nantahala Capital Management, LLC is a Registered Investment Adviser and has been delegated the legal power to vote and/or direct the disposition of such securities on behalf of the selling stockholder as a General Partner, Investment Manager, or Sub-Advisor and would be considered the beneficial owner of such securities. The above shall not be deemed to be an admission by the record owners or the selling stockholder that they are themselves beneficial owners of these securities for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or any other purpose. Wilmot Harkey and Daniel Mack are managing members of Nantahala Capital Management, LLC and may be deemed to have voting and dispositive power over the shares held by the selling stockholder. The principal business address for Blackwell Partners LLC - Series A is 280 South Mangum Street, Suite 210, Durham, NC 27701.
- (11) Investor Company ITF Rosalind Master Fund LP holds (i) 2,300,000 shares of Common Stock, (ii) Tranche A common stock purchase warrants to purchase up to 2,091,047 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 2,091,047 shares of common stock. Each of Rosalind Advisors, Inc., Steven Salamon, and Gilad Aharon have shared voting and dispositive power with respect to these securities. The address for Rosalind Advisors, Inc., Mr. Salamon and Mr. Aharon is 15 Wellesley Street West, Suite 326, Toronto, Ontario, M4Y 0G7 Canada. The address of Investor Company ITF Rosalind Master Fund L.P. is c/o TD Waterhouse, 77 Bloor Street West, 3rd Floor, Toronto, ON M5S 1M2 Canada.
- (12) Lytton-Kambara Foundation holds (i) 2,200,000 shares of Common Stock, (ii) Tranche A common stock purchase warrants to purchase up to 2,000,132 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 2,000,132 shares of common stock. Laurence Lytton, the President of the Lytton-Kambara Foundation, has the power to vote and dispose of the securities held by Lytton-Kambara Foundation. The principal place of business of Lytton-Kambara Foundation is 467 Central Park West 17-A, New York, NY 10025.
- (13) Stonepine Capital, LP holds (i) 1,800,000 shares of Common Stock, (ii) pre-funded warrants to purchase 1,800,000 shares of common stock, (iii) Tranche A common stock purchase warrants to purchase up to 3,272,943 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 3,272,943 shares of common stock. Stonepine Capital Management, LLC is the general partner and investment adviser of Stonepine Capital, LP. Jon Plexico and

Timothy P. Lynch are the control persons of Stonepine Capital Management, LLC. Stonepine Capital Management, LLC and each of Messrs. Plexico and Lynch disclaim beneficial ownership of the securities except to the extent of their pecuniary interest therein. The principal place of business of Stonepine Capital, LP is 919 NW Bond Street, Suite 204, Bend, OR 97703.

- (14) Velan Capital Master Fund, LP holds (i) 1,100,000 shares of Common Stock, (ii) pre-funded warrants to purchase 2,200,000 shares of common stock, (iii) Tranche A common stock purchase warrants to purchase up to 3,000,197 shares of common stock, and (iv) Tranche B common stock purchase warrants to purchase up to 3,000,197 shares of common stock. Velan Capital Holdings LLC ("Velan GP"), as the general partner of the Selling Stockholder, may be deemed to beneficially own the shares beneficially owned by the Selling Stockholder. Velan Capital Investment Management LP ("Velan Capital"), as the investment manager of the Selling Stockholder, may be deemed to beneficially own the shares beneficially owned by the Selling Stockholder. Velan Capital Management LLC ("Velan IM GP"), as the general partner of Velan Capital, may be deemed to beneficially own the shares beneficially owned by the Selling Stockholder. Balaji Venkataraman, as a Managing Member of each of Velan GP and Velan IM GP, may be deemed to beneficially own the shares beneficially owned by the Selling Stockholder. Adam Morgan, as a Managing Member of each of Velan GP and Velan IM GP, may be deemed to beneficially own the shares beneficially owned by the Selling Stockholder.

## PLAN OF DISTRIBUTION

Each selling stockholder (collectively, the “Selling Stockholders”) of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act of 1933, as amended (the “Securities Act”), if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or

more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

We agreed to keep this prospectus effective until all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

#### **DETERMINATION OF OFFERING PRICE**

The prices at which the shares of Common Stock covered by this prospectus may actually be sold will be determined by the prevailing public market price for shares of Common Stock, by negotiations between the selling stockholders and buyers of our Common Stock in private transactions or as otherwise described in "Plan of Distribution."

#### **DESCRIPTION OF CAPITAL STOCK**

##### **General**

Our authorized capital stock consists of 50,000,000 shares of common stock, par value \$0.01 per share, and 10,000,000 shares of preferred stock, par value \$0.01 per share, of which 3,750 are designated as Series A Convertible Preferred Stock, 10,000 are designated as Series B Convertible Preferred Stock, 10,000 are designated as Series C Convertible Preferred Stock, 20,000 are designated as Series D Convertible Preferred Stock, 1,280 are designated as Series E Convertible Preferred Stock, and 3,908 are designated as Series F Convertible Preferred Stock. The following description summarizes some of the terms of our restated certificate of incorporation and third amended and restated bylaws, but does not purport to be complete and is qualified in its entirety by the provisions of our restated certificate of incorporation and third amended and restated bylaws, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

There were 26,256,197 shares of our common stock, no shares of our Series A Convertible Preferred Stock, Series B Convertible Preferred Stock, Series C Convertible Preferred Stock, or Series E Convertible Preferred Stock, 7 shares of our Series D Convertible Preferred Stock (convertible into an aggregate of 52 shares of common stock), and 420 shares of our Series F Convertible Preferred Stock (convertible into an aggregate of 381,780 shares of common stock) outstanding as of February 27, 2024, assuming no exercise of outstanding options or warrants. There were approximately 60 holders of record of our common stock as of February 27, 2024. This number does not include beneficial owners whose shares are held in street name.

As of February 27, 2024, there were 812,945 shares of common stock subject to outstanding options, 229,373 shares of common stock granted through a restricted stock award subject to release and 71,042,572 shares of common stock subject to outstanding warrants.

## **Common Stock**

*Voting Rights.* Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of the stockholders, including the election of directors. Except as otherwise provided by law or our restated certificate of incorporation or bylaws, all matters other than the election of directors submitted to the stockholders at any meeting shall be decided by the affirmative vote of a majority of the outstanding shares of common stock present in person or represented by proxy at the meeting and entitled to vote thereon. Directors are elected by a plurality of the votes cast at the meeting. Our restated certificate of incorporation and second amended and restated bylaws do not provide for cumulative voting rights. Because of this, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

*Dividends.* Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. At present, we have no plans to issue dividends.

*Liquidation.* In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

*Other Rights and Preferences.* Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

*Fully Paid and Nonassessable.* All of our outstanding shares of common stock are fully paid and nonassessable.

*Forum Selection.* Our restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim for breach of a fiduciary duty owed by any of our directors, officers or employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our restated certificate of incorporation or our bylaws or (iv) any action asserting a claim governed by the internal affairs doctrine. This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act, Securities Act, or, in each case, the rules and regulations thereunder, or any other claim for which the U.S. federal courts have exclusive jurisdiction. Provisions in

our restated certificate of incorporation provide that our board of directors is authorized to issue preferred stock in one or more series, to establish the number of shares to be included in each such series and to fix the designation, powers, preferences and rights of such shares and any qualifications, limitations or restrictions thereof. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of our company without further action by the stockholders and may adversely affect the voting and other rights of the holders of common stock. The issuance of preferred stock with voting and conversion rights may adversely affect the voting power of the holders of common stock, including the loss of voting control to others. At present, we have no plans to issue any additional preferred stock.

#### **Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws**

Some provisions of Delaware law, our restated certificate of incorporation and our third amended and restated bylaws contain provisions that could make the following transactions more difficult: an acquisition of us by means of a tender offer; an acquisition of us by means of a proxy contest or otherwise; or the removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions which provide for payment of a premium over the market price for our shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

*Undesignated Preferred Stock.* The ability of our board of directors, without action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with voting or other rights or preferences as designated by our board of directors could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

*Stockholder Meetings.* Our amended and restated bylaws provide that a special meeting of stockholders may be called only by our chairman of the board or chief executive officer (or president, if there is no chief executive officer), or by a resolution adopted by a majority of our board of directors.

*Requirements for Advance Notification of Stockholder Nominations and Proposals.* Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals to be brought before a stockholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

*Elimination of Stockholder Action by Written Consent.* Our restated certificate of incorporation and amended and restated bylaws eliminate the right of stockholders to act by written consent without a meeting.

*Staggered Board.* Our board of directors is divided into three classes. The directors in each class serve for a three-year term, one class being elected each year by our stockholders. This system of electing and removing directors may tend to discourage a third-party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.



*Removal of Directors.* Our restated certificate of incorporation provides that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds (2/3) of the total voting power of all of our outstanding voting stock then entitled to vote in the election of directors.

*Stockholders Not Entitled to Cumulative Voting.* Our restated certificate of incorporation does not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they choose, other than any directors that holders of our preferred stock may be entitled to elect.

*Delaware Anti-Takeover Statute.* We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed to be "interested stockholders" from engaging in a "business combination" with a publicly held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors.

*Amendment of Charter Provisions.* The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock, would require approval by holders of at least 66 2/3% of the total voting power of all of our outstanding voting stock.

*Limitations on Liability and Indemnification.* Our amended and restated certificate of incorporation contains provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, the personal liability of our directors for monetary damages for breach of their fiduciary duties as directors. Our amended and restated bylaws provide that we must indemnify our directors and officers and may indemnify our employees and other agents to the fullest extent permitted by the General Corporation Law of the State of Delaware.

Sections 145 and 102(b)(7) of the General Corporation Law of the State of Delaware provide that a corporation may indemnify any person made a party to an action by reason of the fact that he or she was a director, officer, employee or agent of the corporation or is or was serving at the request of a corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of an action by or in right of the corporation, no indemnification may generally be made in respect of any claim as to which such person is adjudged to be liable to the corporation.

We have entered into indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws, and intend to enter into indemnification agreements with any new directors and executive officers in the future. We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer of us against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

The limitation of liability and indemnification provisions in our restated certificate of incorporation and third amended and restated bylaws may discourage stockholders from bringing a lawsuit against our directors

and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, could benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or control persons, in the opinion of the SEC, such indemnification is against public policy, as expressed in the Securities Act, and is therefore unenforceable.

The provisions of Delaware law, our restated certificate of incorporation and our third amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the composition of our board and management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

#### **Transfer Agent and Registrar**

The transfer and warrant agent and registrar for our common stock is VStock Transfer, LLC.

#### **Listing**

Shares of our common stock are quoted on The Nasdaq Capital Market under the symbol "KPRX."

## LEGAL MATTERS

Certain legal matters in connection with this offering will be passed upon for us by Burns & Levinson, LLP, Boston, MA.

## EXPERTS

The consolidated balance sheets of Kiora Pharmaceuticals, Inc. as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the years then ended, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report dated March 23, 2023, which is incorporated herein by reference, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, of which this prospectus forms a part. The rules and regulations of the SEC allow us to omit from this prospectus certain information included in the registration statement. For further information about us and our securities, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement.

We are subject to the information requirements of the Exchange Act and, in accordance therewith, file annual, quarterly and special reports, proxy statements and other information with the SEC. These documents may be accessed through the SEC's electronic data gathering, analysis and retrieval system, or EDGAR, via electronic means, including the SEC's home page on the Internet ([www.sec.gov](http://www.sec.gov)).

We post on our public website ([www.kiorapharma.com](http://www.kiorapharma.com)) our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it under File No. 001-36672, which means that we can disclose important information to you by referring you to those publicly available documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below:

- Our [Annual Report on Form 10-K for the year ended December 31, 2022](#) filed with the SEC on March 23, 2023 and the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2022 from our [Definitive Proxy Statement on Schedule 14A filed with the SEC on April 28, 2023](#);
- Our Quarterly Reports on Form 10-Q for the fiscal quarter ended [March 31, 2023](#) filed with the SEC on May 9, 2023, for the fiscal quarter ended [June 30, 2023](#) filed with the SEC on August 8, 2023, and for the fiscal quarter ended [September 30, 2023](#) filed with the SEC on November 9, 2023;
- Our Current Reports on Form 8-K filed with the SEC on [January 3, 2023](#), [February 3, 2023](#), [February 7, 2023](#), [March 30, 2023](#), [April 27, 2023](#), [June 6, 2023](#), [June 15, 2023](#), [June 21, 2023](#), [July 20, 2023](#), [August 1, 2023](#), [September 1, 2023](#), [September 21, 2023](#), [September 28, 2023](#), [January 16, 2024](#), [January 31, 2024](#), [February 1, 2024](#), and [February 12, 2024](#) (in each case, except for information contained therein which is furnished rather than filed);
- The description of our common stock contained in our registration statement on Form 8-A12B filed with the SEC on [July 28, 2015](#) and amended on [July 30, 2015](#); including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference any future filings (other than any filings or portions of such reports that are not deemed “filed” under the Exchange Act in accordance with the Exchange Act and applicable SEC rules, including Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus, and such documents will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish to anyone to whom a prospectus is delivered, including any beneficial owner, without charge, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You should direct any requests for documents to Kiora Pharmaceuticals, Inc., 332 Encinitas Boulevard, Suite 102, Encinitas, CA 92024 or our telephone number at (858) 224-9600.

You also may access these filings on our website at [www.kiorapharma.com](http://www.kiorapharma.com). We do not incorporate the information on our website into this prospectus or any supplement to this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus or

any supplement to this prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus or any supplement to this prospectus). You may also access these filings at the SEC's website at [www.sec.gov](http://www.sec.gov).

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.



**KIORA PHARMACEUTICALS, INC.**

**76,528,829 Shares of Common Stock**

**PROSPECTUS**

**, 2024**

## Part II—INFORMATION NOT REQUIRED IN PROSPECTUS

### Item 14. Other Expenses of Issuance and Distribution

The Company is paying all expenses of the offering. No portion of these expenses will be borne by the selling security holder. The selling security holder, however, will pay any other expenses incurred in selling its Common Stock, including any brokerage commissions or costs of sale. Following is an itemized statement of all expenses in connection with the issuance and distribution of the securities to be registered. All of the amounts shown are estimates, except for the SEC Registration Fees.

Securities and Exchange Commission registration fee	\$	6,642
Legal fees and expenses		20,000
Accounting fees and expenses		15,000
Total	\$	41,642

### Item 15. Indemnification of Directors and Officers

Our amended and restated certificate of incorporation contains provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, the personal liability of our directors for monetary damages for breach of their fiduciary duties as directors. Our amended and restated bylaws provide that we must indemnify our directors and officers and may indemnify our employees and other agents to the fullest extent permitted by the General Corporation Law of the State of Delaware.

Sections 145 and 102(b)(7) of the General Corporation Law of the State of Delaware provide that a corporation may indemnify any person made a party to an action by reason of the fact that he or she was a director, officer, employee or agent of the corporation or is or was serving at the request of a corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of an action by or in right of the corporation, no indemnification may generally be made in respect of any claim as to which such person is adjudged to be liable to the corporation.

We have entered into indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws, and intend to enter into indemnification agreements with any new directors and executive officers in the future. We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer of us against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions. See also "Undertakings" set out in response to Item 17 herein.

### Item 16. Exhibits

A list of exhibits filed with this registration statement on Form S-3 is set forth on the Exhibit Index and is incorporated herein by reference.

### Item 17. Undertakings

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - (a) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933,
  - (b) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement,
  - (c) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

*Provided, however,* that paragraphs (1)(a), (1)(b) and (1)(c) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:



- (a) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
  - (b) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date
- (5) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
  - (6) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the forgoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Encinitas, State of California, on February 28, 2024.

**KIORA PHARMACEUTICALS, INC.**

By: /s/ Brian M. Strem, Ph.D.  
Name: Brian M. Strem, Ph.D.  
Title: President and Chief Executive Officer

KNOW ALL BE THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints each of Brian M. Strem, Ph.D. and Melissa Tosca as such person's true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any or all amendments (including, without limitation, post-effective amendments) to this registration statement (or any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or any substitute or substitutes of them, may lawfully do or cause to be done by virtue hereof.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Brian M. Strem, Ph.D.</u> Brian M. Strem, Ph.D.	President, Chief Executive Officer and Director <i>(principal executive officer)</i>	February 28, 2024
<u>/s/ Melissa Tosca</u> Melissa Tosca	Executive Vice President of Finance <i>(principal financial and accounting officer)</i>	February 28, 2024
<u>/s/ Praveen Tyle, Ph.D.</u> Praveen Tyle, Ph.D.	Chairman	February 28, 2024
<u>/s/ Kenneth Gayron</u> Kenneth Gayron	Director	February 28, 2024
<u>/s/ David Hollander, MD, MBA</u> David Hollander, MD, MBA	Director	February 28, 2024
<u>/s/ Erin Parsons</u> Erin Parsons	Director	February 28, 2024
<u>/s/ Aron Shapiro</u> Aron Shapiro	Director	February 28, 2024
<u>/s/ Carmine Stengone</u> Carmine Stengone	Director	February 28, 2024

## EXHIBIT INDEX

Exhibit Number	Description of Exhibit
3.1	<a href="#">Restated Certificate of Incorporation of the Registrant (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 20, 2015 and incorporated by reference thereto).</a>
3.2	<a href="#">Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant, filed July 10, 2018 (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on July 11, 2018 and incorporated by reference thereto).</a>
3.3	<a href="#">Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant, filed August 28, 2019 (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on August 29, 2019 and incorporated by reference thereto).</a>
3.4	<a href="#">Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant, filed June 25, 2020 (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on November 8, 2021 and incorporated by reference thereto).</a>
3.5	<a href="#">Certificate of Ownership and Merger of the Registrant, filed November 5, 2021 (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on June 26, 2020 and incorporated by reference thereto).</a>
3.6	<a href="#">Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant, filed September 26, 2022 (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on September 26, 2022 and incorporated by reference thereto).</a>
3.7	<a href="#">Third Amended and Restated By-laws of the Registrant (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on August 4, 2022 and incorporated by reference thereto).</a>
4.1	<a href="#">Form of Pre-Funded Warrant, dated February 5, 2024 (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 1, 2024 and incorporated by reference thereto).</a>
4.2	<a href="#">Form of Tranche A Warrant, dated February 5, 2024 (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 1, 2024 and incorporated by reference thereto).</a>
4.3	<a href="#">Form of Tranche B Warrant, dated February 5, 2024 (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 1, 2024 and incorporated by reference thereto).</a>
5.1*	<a href="#">Opinion of Burns &amp; Levinson LLP.</a>
23.1*	<a href="#">Consent of EisnerAmper LLP.</a>
23.2*	Consent of Burns & Levinson LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (contained on signature page hereto).
107*	<a href="#">Calculation of Registration Fee.</a>

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Filed herewith.

## Calculation of Filing Fee Tables

**FORM S-3**

(Form Type)

**KIORA PHARMACEUTICALS, INC.**

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price <sup>(1)</sup>	Fee Rate	Amount of Registration Fee
<b>Newly Registered Securities</b>							
Fees to Be Paid	Equity	Common Stock, par value \$0.01 per share <sup>(2)</sup>	Rule 457(o)		\$ 8,727,920	\$147.60 per \$1,000,000	\$ 1,288.24
Fees to be Paid	Equity	Pre-funded Warrants to purchase Common Stock <sup>(2)</sup>	Rule 457(o)		\$ 6,272,081	\$147.60 per \$1,000,000	\$ 925.76
Fees to be Paid	Equity	Warrants to purchase Common Stock <sup>(2)</sup>	Rule 457(g)		— <sup>(4)</sup>		\$ —
Fees to be Paid	Equity	Common Stock issuable upon exercise of Warrants <sup>(2)</sup>	Rule 457(o)		\$ 30,000,000	\$147.60 per \$1,000,000	\$ 4,428.00
Fees Previously Paid	—	—	—	—	—	—	—
<b>Total Offering Amounts</b>					\$ 45,000,001		\$ 6,642.00
<b>Total Fees Previously Paid</b>							\$ 0.00
<b>Total Fee Offsets</b>							\$ 0.00
<b>Net Fee Due</b>							\$ 6,642.00

(1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(i) and Rule 457(o) under the Securities Act of 1933 (the "Securities Act").

(2) Pursuant to Rule 416 under the Securities Act, there are also being registered such indeterminate number of additional securities as may be issued to prevent dilution resulting from share splits, share dividends or similar transactions.

(3) No registration fee required pursuant to Rule 457(i).

(4) No registration fee required pursuant to Rule 457(g).



February 28, 2024

Board of Directors  
Kiara Pharmaceuticals, Inc.  
332 Encinitas Boulevard, Suite 102  
Encinitas, California 92024

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel for Kiara Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the preparation of the Registration Statement on Form S-3 (the "Registration Statement"), filed with the Securities and Exchange Commission (the "Commission") on February 28, 2024 under the Securities Act of 1933, as amended (the "Securities Act"), covering the offering for resale by the selling stockholders listed in the Registration Statement, on a delayed or continuous basis, of 76,528,829 shares of the Company's common stock, par value \$0.01 per share (the "Common Stock"), consisting of (i) 15,800,000 shares (the "Common Shares") of the Company's common stock, par value \$0.01 per share (the "Common Stock"), (b) 11,354,237 shares of Common Stock underlying pre-funded warrants (the "Pre-Funded Warrants"), (c) 24,687,296 shares (the "Tranche A Warrant Shares") of Common Stock underlying Tranche A common stock purchase warrants (the "Tranche A Warrants"), and (d) 24,687,296 shares (the "Tranche B Warrant Shares" and, together with the Pre-Funded Warrant Shares and the Tranche A Warrant Shares, the "Warrant Shares") of Common Stock underlying Tranche B common stock purchase warrants (the "Tranche B Warrants" and, together with the Pre-Funded Warrants and the Tranche A Warrants, the "Warrants"). The Common Shares, Warrants and Warrant Shares are referred to herein collectively as the "Securities." The Securities were issued pursuant to securities purchase agreements between the Company and the purchasers named therein dated as of January 31, 2024 (collectively, the "Purchase Agreement"). This opinion is being rendered in connection with the filing of the Registration Statement with the Commission.

In connection with this opinion, we have examined and relied upon the Registration Statement and the prospectus contained therein, the Company's Restated Certificate of Incorporation, as amended (the "Charter"), the Company's Third Amended and Restated By-Laws, the Purchase Agreement, and such instruments, documents, certificates and records that we have deemed relevant and necessary for the basis of our opinion hereinafter expressed. In such examination, we have assumed: (i) the authenticity of original documents and the genuineness of all signatures; (ii) the conformity to the originals of all documents submitted to us as copies; (iii) the truth, accuracy and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed; and (iv) the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof. For purposes of the opinion set forth below, we have assumed that before the Warrant Shares are issued the Company does not issue shares of Common Stock or reduce the total number of shares of Common Stock the Company is authorized to issue under the Charter such that the number of unissued shares of Common Stock authorized under the Charter is less than the number of Warrant Shares.

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Based upon the foregoing, and subject to the additional qualifications set forth below, we are of the opinion that (i) the Common Shares have been duly authorized and validly issued and are fully paid and nonassessable and (ii) the Warrant Shares, when delivered and paid for upon exercise of the Warrants in accordance with the terms of the Warrants, will have been duly authorized and validly issued and will be fully paid and nonassessable.

This opinion is limited to the General Corporate Laws of the State of Delaware, and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or foreign jurisdiction.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the Registration Statement.

In giving this consent, we do not admit that we are within the category of persons whose consent is required by Section 7 of the Securities Act or the rules and regulations promulgated thereunder by the Commission. This opinion letter is given to you solely for use in connection with the resale of the Securities while the Registration Statement is in effect and is not to be relied upon for any other purpose. Our opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company, the Securities or the Registration Statement.

Very truly yours,

/s/ BURNS & LEVINSON LLP

BURNS & LEVINSON LLP

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement of Kiora Pharmaceuticals, Inc. on Form S-3 to be filed on or about February 28, 2024 of our report dated March 23, 2023, on our audits of the financial statements as of December 31, 2022 and 2021 and for each of the years then ended, which report was included in the Annual Report on Form 10-K filed March 23, 2023. Our report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. We also consent to the reference to our firm under the caption "Experts" in this Registration Statement.

*/s/ EisnerAmper LLP*

EISNERAMPER LLP

Iselin, New Jersey

February 28, 2024