

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

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Kiora Pharmaceuticals, Inc.

(Exact name of registrant as specified in its Charter)

Delaware
 (State or other jurisdiction of
 incorporation or organization)

2834
 (Primary Standard Industrial
 Classification Code Number)

98-0443284
 (I.R.S. Employer
 Identification No.)

332 Encinitas Boulevard, Suite 102, Encinitas, California 92024
 (781) 788-9043

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

Brian M. Strem, Ph.D.
 President and Chief Executive Officer
 Kiora Pharmaceuticals, Inc.
 332 Encinitas Boulevard, Suite 102, Encinitas, California 92024
 (781) 788-9043

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

With copies to:

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

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

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, 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.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) 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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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. (check one)

Large Accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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 the 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, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.

SUBJECT TO COMPLETION, DATED FEBRUARY 3, 2023

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS



Up to 1,052,798 Shares of Common Stock

This prospectus relates to the offer and sale of up to 1,052,798 shares of our Common Stock, par value \$0.01 per share, by Lincoln Park Capital Fund, LLC, which we refer to in this prospectus as Lincoln Park or the selling stockholder.

The shares of Common Stock to which this prospectus relates consist of:

- 52,798 shares of Common Stock that we have issued and sold to Lincoln Park pursuant to a securities purchase agreement, dated as of February 2, 2023, that we entered into with Lincoln Park, which we refer to in this prospectus as the Securities Purchase Agreement, pursuant to which we issued and sold to Lincoln Park 52,798 shares of Common Stock and warrants to purchase up to an aggregate of 105,596 shares of Common Stock, at a purchase price per unit consisting of one share of Common Stock and two warrants of \$3.788, and for a total purchase price of \$200,000, in a private placement transaction that closed on February 3, 2023, which we refer to in this prospectus as the Private Placement; and
- Up to 1,000,000 shares of Common Stock that we may elect to issue and sell to Lincoln Park, in our sole discretion from time to time after the date of this prospectus, pursuant to a purchase agreement, dated as of February 3, 2023, that we entered into with Lincoln Park, which we refer to in this prospectus as the Purchase Agreement, providing for up to \$10,000,000 of committed equity financing, which we refer to in this prospectus as the Committed Equity Financing.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of our Common Stock by the selling stockholder. However, (i) we have received \$200,000 aggregate gross proceeds under the Securities Purchase Agreement from our sale to Lincoln Park of 52,798 shares of Common Stock and warrants to purchase up to an aggregate of 105,596 shares of Common Stock on February 3, 2023 in the Private Placement and (ii) we may receive additional aggregate gross proceeds of up to \$10.0 million under the Purchase Agreement from sales of common stock we may elect to make to Lincoln Park in our sole discretion from time to time after the date of this prospectus pursuant to the Purchase Agreement. See the section titled “The Lincoln Park Transactions—The Private Placement” in this prospectus for a description of the terms of the Securities Purchase Agreement and the Private Placement, the section titled “The Lincoln Park Transactions—The Committed Equity Financing” in this prospectus for a description of the terms of the Purchase Agreement and the Committed Equity Financing, and the section titled “Selling Stockholder” in this prospectus for additional information regarding Lincoln Park.

The selling stockholder may sell or otherwise dispose of the Common Stock described in this prospectus in a number of different ways and at varying prices. See the section titled “Plan of Distribution” in this prospectus for more information about how Lincoln Park may sell or otherwise dispose of the Common Stock being registered for resale by Lincoln Park pursuant to this prospectus. Lincoln Park is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended, or the Securities Act, with respect to the offer and resale by Lincoln Park of up to 1,000,000 shares of Common Stock that we may issue and sell to Lincoln Park at our sole discretion from time to time after the date of this prospectus in connection with the Committed Equity Financing pursuant to the Purchase Agreement, and Lincoln Park may be deemed an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act with respect to the offer and resale by Lincoln Park of up to 52,798 shares of Common Stock that we have issued and sold to Lincoln Park in the Private Placement pursuant to the Securities Purchase Agreement. We will pay the expenses incurred in registering under the Securities Act the offer and resale of the Common Stock to which this prospectus relates by Lincoln Park, including legal and accounting fees.

Our Common Stock is listed on The Nasdaq Capital Market under the symbol “KPRX.” On February 2, 2023, the closing price for our Common Stock, as reported on The Nasdaq Capital Market, was \$3.56 per share.

You should read this prospectus, together with additional information described under the headings “Incorporation of Certain Information by Reference” and “Where You Can Find More Information,” carefully before you invest in our common stock.

Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page 11 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.

Neither the U.S. 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 _____, 2023

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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 stockholder 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 stockholder 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.

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information. In addition, assumptions and estimates of our and our industry’s future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors.” These and other factors could cause our future performance to differ materially from our assumptions and estimates. See “Special Note Regarding Forward-Looking Statements.”

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus is a part 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” and our financial statements

and the related notes in our Amended Annual Report on Form 10-K/A for the fiscal year ended December 31, 2021 filed with the SEC on July 7, 2022 and in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2022 filed with the SEC on November 9, 2022, 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.

Overview

We are a clinical-stage specialty pharmaceutical company developing therapies for the treatment of ophthalmic diseases. We were formed as a Delaware corporation on December 26, 2004 under the name of EyeGate Pharmaceuticals, Inc., and changed our name to Kiora Pharmaceuticals, Inc. effective November 8, 2021. We were originally incorporated in 1998 under the name of Optis France S.A. in Paris, France.

Our lead product is KIO-301 with an initial focus on patients with mid to 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. We initiated a Phase 1b clinical trial in the third quarter of 2022 and enrolled the first patient in the fourth quarter of 2022. KIO-301 (formerly known as B-203) was acquired through the Bayon Therapeutics, Inc. (“Bayon”) transaction which closed October 21, 2021.

KIO-101 is a product that focuses on patients with Ocular Presentation of Rheumatoid Arthritis and other autoimmune diseases (“OPRA+”). KIO-101 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. In a 14-Day GLP intravenous (IV) repeated dose toxicity study in rats, no adverse or test item related effects were observed in any of the tested parameters (mortality, clinical observations, ophthalmoscopy, body weight and food consumption, hematology and coagulation, clinical biochemistry, organ weight, pathology and histopathology) at the highest doses tested (1.0 mg/kg). In the fourth quarter of 2021, we reported topline safety and tolerability data from a Phase 1b proof-of-concept (“POC”) study evaluating KIO-101 in patients with ocular surface inflammation. As a further sign of safety, there were zero clinically significant laboratory (including liver enzymes) findings observed in both healthy patients and those with ocular surface inflammation. We initiated a Phase 2 clinical trial in the second half of 2022 and expect to enroll patients starting in the second quarter of 2023. KIO-101 (formerly known as PP-001) was acquired through the acquisition of Panoptes Pharma Ges.m.b.H “Panoptes” in the fourth quarter of 2020.

In addition, we are developing KIO-201, for patients with Persistent Corneal Epithelial Defects and patients recovering from surgical wounds, such as those undergoing photorefractive keratectomy (“PRK”) surgery. 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.

Recent Developments

Public Offering

On July 22, 2022, we entered into an Underwriting Agreement with Ladenburg Thalmann & Co. Inc., as underwriter, pursuant to which we issued and sold, on July 26, 2022 in a firm commitment underwritten public offering (the “Public Offering”), (i) 592,392 shares of Common Stock, (ii) 1,280 shares of Series E Convertible Preferred Stock, (iii) 30,095,697 Class A Warrants, and (iv) 30,095,697 Class B Warrants. Upon exercise, the warrants will convert on a 40 for 1 basis into a total of 1,504,785 common shares. The net proceeds to us, after deducting the underwriting discount and commissions and estimated offering expenses payable by us, were approximately \$5.3 million. Each of the Class A Warrants and Class B Warrants have an exercise price of \$8.00 per share of underlying common stock. The securities were offered by us pursuant to a Registration Statement on Form S-1 (File No. 333-264641), which was initially filed with the Securities and Exchange Commission (the “Commission”) on May 3, 2022, amended on July 13, 2022, July 19, 2022 and July 21, 2022, and declared effective by the Commission on July 21, 2022.

Each Class A Warrant and Class B Warrant became exercisable following approval by our stockholders of the exercise of those warrants at the stockholder meetings held on September 15, 2022 and September 23, 2022 and the consummation of the reverse stock split as described below. The Class A Warrants will expire on the one-year anniversary of their initial exercise date, and the Class B Warrants will expire on the five-year anniversary of their initial exercise date.

Reverse Stock Split

On September 23, 2022, we filed with the Secretary of State of the State of Delaware a Certificate of Amendment to our Restated Certificate of Incorporation (the “Certificate of Amendment”), which was approved by our stockholders at our 2022 Annual Meeting of Stockholders held on September 23, 2022 and by our Board of Directors.

The Certificate of Amendment effected a 1-for-40 reverse stock split of our Common Stock, in which each forty (40) shares of Common Stock issued and outstanding as of 12:01 a.m. Eastern Time on September 27, 2022 (the effective time of the reverse stock split) was combined and converted into one share of Common Stock. While the reverse stock split decreased the number of outstanding shares of Common Stock, it did not change the total number of shares of Common Stock authorized for issuance by us, nor did it change the par value of the Common Stock. The reverse stock split-adjusted shares of Common Stock began trading on The Nasdaq Capital Market at the open of the market on September 27, 2022 under the new CUSIP number 49721T 309. No change was made to the trading symbol for the Common Stock, “KPRX”, in connection with the reverse stock split.

In connection with the reverse stock split, proportional adjustments were made to (i) the number of shares of Common Stock underlying our outstanding stock options and warrants, (ii) the exercise price or conversion price (as applicable) of our outstanding stock options and warrants, and (iii) the number of shares reserved for issuance under our equity incentive plan. All share and per share amounts in this prospectus have been adjusted retroactively to reflect the reverse stock split.

Warrant Inducement Transaction

On November 17, 2022, we entered into warrant exercise inducement offer letters (“Inducement Letters”) with certain of the investors from the Public Offering, pursuant to which such investors agreed to exercise for cash all of their Class A Warrants to purchase 654,609 shares of our Common Stock originally issued in the Public Offering in exchange for our agreement to issue new warrants (the “Inducement Warrants”) on substantially the same terms as the Class A Warrants, except as described below, to purchase up to 654,609 shares of Common Stock (such issuance, the “Private Placement”). Each Inducement Warrant is exercisable at a price per share of common stock of \$5.97. Each Inducement Warrant will initially be exercisable six months following its date of issuance, and will expire on the 18 month anniversary of their initial exercise date. We received aggregate gross proceeds of approximately \$3.12 million from the exercise of the Class A Warrants by the selling

Related-Party Transactions

We incurred expenses of approximately \$0.125 million for services to a related party vendor Ora, Inc. who is providing us with clinical study services for KIO-301. Aron Shapiro, one of our directors, is an executive at Ora, Inc. This amount was included in accounts payable at September 30, 2022 and was subsequently paid.

The Lincoln Park Transactions

The Private Placement

On February 2, 2023, we entered into the Securities Purchase Agreement with Lincoln Park pursuant to which we issued and sold to Lincoln Park (i) 52,798 shares of Common Stock and (ii) warrants to purchase up to 105,596 shares of Common Stock at an exercise price of \$3.538 per share, which price represents the “Minimum Price” in accordance with Nasdaq Listing Rule 5635(d) (subject to pro rata adjustments for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction), for an aggregate gross purchase price of \$200,000, in the Private Placement. The Private Placement closed on February 3, 2023. The warrants will become exercisable upon the six-month anniversary of the closing date (*i.e.*, August 3, 2023), or the Initial Exercise Date, and thereafter at any time during the five-year period following the Initial Exercise Date. If a registration statement registering the resale of the shares of Common Stock underlying the warrants is not effective under the Securities Act and available for use by the holder of the warrants at the time of exercise on or after the Initial Exercise Date, the warrants may be exercised by means of a “cashless” exercise formula. The warrants do not contain 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 its 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.

On February 2, 2023 and simultaneously with the execution of the Securities Purchase Agreement, we entered into a customary registration rights agreement with Lincoln Park, which we refer to in this prospectus as the Private Placement Registration Rights Agreement. The Private Placement Registration Rights Agreement provides that if, at any time during the period from and after the closing date of the Private Placement through and including the six-month anniversary of the closing date, we propose to file a registration statement with the SEC for our own account or for the account of one or more third parties other than we or any of our subsidiaries (including any offering to be made on a delayed or continuous basis under Rule 415 under the Securities Act), such as the registration statement that includes this prospectus, which we filed with the SEC pursuant to our obligations under the registration rights agreement that we entered into with Lincoln Park relating to the Committed Equity Facility (described below) for the purpose of registering under the Securities Act for resale by Lincoln Park shares of Common Stock that may be issued and sold by us to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement, then Lincoln Park may elect to have the 52,798 shares of Common Stock that were issued and sold by us to Lincoln Park in the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023 also included in such registration statement in order to register under the Securities Act the resale by Lincoln Park of such 52,798 shares of Common Stock that were issued and sold by us to Lincoln Park in the Private Placement. However, the Private Placement Registration Rights Agreement does not afford any registration rights with respect to the warrants that were issued and sold by us to Lincoln Park in the Private Placement, or with respect to the 105,596 shares of Common Stock underlying such warrants. Therefore, none of the warrants or the 105,596 shares of Common Stock underlying such warrants that were issued and sold by us to Lincoln Park in the Private Placement on February 3, 2023 are being registered for resale in the registration statement that includes this prospectus, or any other registration statement of ours that has been filed with the SEC as of the date of this prospectus.

The 52,798 shares of Common Stock and the warrants to purchase up to 105,596 shares of Common Stock that we issued and sold to Lincoln Park in the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023, and the 105,596 shares of Common Stock in the aggregate issuable upon full exercise of the warrants in accordance with the terms of the warrants, have been and will be issued and sold by us to Lincoln Park in the Private Placement in reliance upon the exemptions from the registration requirements of the Securities Act afforded by Section 4(a)(2) of the Securities Act and Rule 506(b) of Regulation D promulgated thereunder.

Lincoln Park has represented to us that at no time prior to our execution of the Securities Purchase Agreement and the Private Placement Registration Rights Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our Common Stock or any hedging transaction, which establishes a net short position with respect to our Common Stock.

There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Securities Purchase Agreement or the Private Placement Registration Rights Agreement, except that we (i) are prohibited (with certain specified exceptions) from, among other things, until the earlier of (1) the first business day following the date a registration statement registering the shares of Common Stock sold in the Private Placement for resale is declared effective and (2) the six-month anniversary of the closing of the Private Placement, effecting or entering into an agreement to effect a “variable rate transaction” whereby we issue and sell Common Stock or securities exercisable or convertible into Common Stock at a conversion price, exercise price, exchange rate or other price that is based on and/or varies with the trading price of Common Stock at any time after the initial issuance of such securities, that includes any reset to such prices after the initial date of issuance, or that includes any put, call, redemption, back-back, price reset or other similar provision, subject to certain exceptions, and (ii) will be required to pay certain liquidated damages to Lincoln Park if (A) for so long as Lincoln Park owns any shares of Common Stock, warrants or shares of Common Stock issued or issuable upon exercise of the warrants acquired by Lincoln Park in the Private Placement (or until such earlier date as none of the warrants remain outstanding), we fail for any reason to satisfy the current public information requirement under Rule 144(c) under the Securities Act, until such time as such requirement is no longer required in order for Lincoln Park to resell such securities pursuant to Rule 144 under the Securities Act, or (B) we fail to deliver to Lincoln Park the shares of Common Stock, including shares of Common Stock issuable upon exercise of the warrants, purchased by Lincoln Park in the Private Placement free of restrictive legends or any other restrictions on transfer thereof within a specified period set forth in the Securities Purchase Agreement.

The Securities Purchase Agreement and the Private Placement Registration Rights Agreement contain customary representations, warranties, conditions and indemnification obligations of the parties. Copies of the Securities Purchase Agreement and the Private Placement Registration Rights Agreement have been filed as

exhibits to the registration statement that includes this prospectus and are available electronically on the SEC's website at www.sec.gov.

The Committed Equity Financing

On February 3, 2023, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has agreed to purchase from us up to an aggregate of \$10.0 million of our Common Stock (subject to certain limitations), from time to time and at our sole discretion over the term of the Purchase Agreement. Also on February 3, 2023, we entered into a registration rights agreement with Lincoln Park, which we refer to in this prospectus as the CEF Registration Rights Agreement, pursuant to which we filed with the SEC the registration statement that includes this prospectus to register under the Securities Act for resale by Lincoln Park the shares of our Common Stock that we may elect to issue and sell to Lincoln Park from time to time from and after the date of this prospectus in connection with the Committed Equity Financing under the Purchase Agreement.

This prospectus relates to the offer and resale by Lincoln Park of up to 1,052,798 shares of our Common Stock, consisting of: (i) 52,798 shares of Common Stock that we have issued and sold to Lincoln in the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023, in which we issued and sold to Lincoln Park 52,798 shares of Common Stock and warrants to purchase up to an aggregate of 105,596 shares of Common Stock, at a purchase price per unit consisting of one share of Common Stock and two warrants of \$3.788, and for a total purchase price of \$200,000 (none of the warrants or the 105,596 shares of Common Stock underlying such warrants are being registered for resale in the registration statement that includes this prospectus), and (ii) up to 1,000,000 shares of Common Stock that we have reserved for issuance and sale to Lincoln Park in the Committed Equity Financing under the Purchase Agreement from time to time after the date of this prospectus, if and when we determine to sell shares of our Common Stock to Lincoln Park in the Committed Equity Financing under the Purchase Agreement.

We do not have the right to commence any sales of our Common Stock to Lincoln Park under the Purchase Agreement until all of the conditions to Lincoln Park's purchase obligations under the Committed Equity Financing set forth in the Purchase Agreement have been satisfied (which we refer to in this prospectus as the Commencement), including that the SEC declare effective the registration statement that includes this prospectus and a final prospectus relating thereto is filed with the SEC. Under the Purchase Agreement, from and after the date on which the Commencement occurs, or the Commencement Date, on any business day selected by us we may, by written notice delivered by us to Lincoln Park, direct Lincoln Park to purchase up to 35,000 shares of Common Stock on such business day (which shall be the "purchase date" therefor), at a purchase price per share that will be determined and fixed in accordance with the Purchase Agreement at the time we deliver such written notice to Lincoln Park (each such purchase, a Regular Purchase), provided, however, that the maximum number of shares of Common Stock we may sell to Lincoln Park in a Regular Purchase will be automatically increased to (i) 40,000 shares, if the closing sale price of our Common Stock on the applicable purchase date for such Regular Purchase is not below \$6.00 per share, (ii) 45,000 shares, if the closing sale price of our Common Stock on the applicable purchase date for such Regular Purchase is not below \$8.00 per share, and (iii) 50,000 shares, if the closing sale price of our Common Stock on the applicable purchase date for such Regular Purchase is not below \$10.00 per share (each of such stock and dollar amounts subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement). In any case, however, Lincoln Park's maximum purchase commitment in any single Regular Purchase may not exceed \$1,000,000. The per share purchase price for the shares of Common Stock sold in each such Regular Purchase, if any, will be based on prevailing market prices of our Common Stock immediately preceding the time of sale as computed under the Purchase Agreement. We may direct Lincoln Park to purchase shares of our Common Stock in a Regular Purchase on any business day we select as the purchase date for such Regular Purchase and as often as every business day, provided that all shares of Common Stock subject to all prior Regular Purchases that we have effected under the Purchase Agreement, if any, have been received by Lincoln Park before we deliver notice to Lincoln Park for such Regular Purchase in accordance with the Purchase Agreement.

In addition to Regular Purchases described above, provided that (i) we have directed Lincoln Park to purchase the maximum amount of Common Stock that we are then able to sell to Lincoln Park in a Regular Purchase on the applicable purchase date therefor and (ii) the closing sale price of our Common Stock on such applicable purchase date for such Regular Purchase is not below \$1.00 per share (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement), we may, in our sole discretion, also direct Lincoln Park to purchase additional shares of Common Stock in "accelerated purchases" and "additional accelerated purchases" as set forth in the Purchase Agreement, provided further that all shares of Common Stock purchased by Lincoln Park pursuant to all prior Regular Purchases, accelerated purchases and additional accelerated purchases (as applicable) that we have effected under the Purchase Agreement have been received by Lincoln Park before we deliver notice to Lincoln Park for the applicable accelerated purchase (and with respect to an additional accelerated purchase, before we deliver notice to Lincoln Park for such applicable additional accelerated purchase) in accordance with the Purchase Agreement. The purchase price per share of Common Stock to be paid by Lincoln Park for shares of Common Stock that we elect to sell to Lincoln Park in any accelerated purchase (or in any additional accelerated purchase, as applicable) will be based on prevailing market prices of our Common Stock at the time of sale as computed under the Purchase Agreement.

Under the applicable Nasdaq rules, in no event may we issue to Lincoln Park in connection with the Committed Equity Financing under the Purchase Agreement more than 359,114 shares of our Common Stock, which number of shares is equal to 19.99% of the shares of Common Stock outstanding immediately prior to the execution of the Purchase Agreement, which we refer to as the Exchange Cap, unless (i) we obtain stockholder approval to issue shares of Common Stock in excess of the Exchange Cap in accordance with applicable Nasdaq rules, or (ii) the average price per share paid by Lincoln Park for all of the shares of Common Stock that we direct Lincoln Park to purchase from us pursuant to the Purchase Agreement, if any, equals or exceeds \$3.538 per share (representing the lower of the official closing price of our Common Stock on Nasdaq on the trading day immediately preceding the date of the Purchase Agreement and the average official closing price of our Common Stock on Nasdaq for the five consecutive trading days ending on the trading day immediately preceding the date of the Purchase Agreement) so that the Exchange Cap limitation would not apply to issuances and sales of Common Stock in the Committed Equity Financing under applicable Nasdaq rules. In any event, the Purchase Agreement specifically provides that we may not issue or sell any shares of our Common Stock under the Purchase Agreement if such issuance or sale would breach any applicable Nasdaq rules or regulations.

The Purchase Agreement also provides that we may not under any circumstances issue or sell any shares of Common Stock to Lincoln Park under the Purchase Agreement which, when aggregated with all other shares of Common Stock then beneficially owned by Lincoln Park and its affiliates (as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Rule 13d-3 thereunder), would result in Lincoln Park beneficially owning more than 9.99% of our outstanding Common Stock, which we refer to in this prospectus as the Beneficial Ownership Cap.

We will control the timing and amount of any sales of our Common Stock to Lincoln Park pursuant to the Purchase Agreement. Lincoln Park has no right to require us to sell any shares of Common Stock to them under the Purchase Agreement, however Lincoln Park is obligated to make purchases of our Common Stock as we may properly direct Lincoln Park to purchase under the Purchase Agreement, upon the terms and subject to the satisfaction of the conditions set forth therein. Neither we nor

Lincoln Park may assign or transfer our respective rights and obligations under the Purchase Agreement, and no provision of the Purchase Agreement or the CEF Registration Rights Agreement may be modified or waived by us or Lincoln Park.

Actual sales of shares of Common Stock to Lincoln Park will depend on a variety of factors to be determined by us from time to time, including, among others, market conditions, the trading price of the Common Stock and determinations by us as to the appropriate sources of funding for our company and its operations. The net proceeds that we may realize from sales of Common Stock to Lincoln Park under the Purchase Agreement, if any, will depend on the frequency and prices at which we may, from time to time at its discretion, sell shares of Common Stock to Lincoln Park from and after the date of this prospectus. We expect that any net proceeds that may be received by us from such sales of Common Stock to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement, together with the net proceeds received by us from the sale of 52,798 shares of Common Stock and warrants to purchase up to 105,596 shares of Common Stock to Lincoln Park in the Private Placement on February 3, 2023, will be used for working capital and general corporate purposes.

Lincoln Park has represented to us that at no time prior to our execution of the Purchase Agreement and the CEF Registration Rights Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our Common Stock or any hedging transaction, which establishes a net short position with respect to our Common Stock.

There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement or the CEF Registration Rights Agreement, except that we are prohibited (with certain specified exceptions) from, among other things, until the earlier of (1) the later of (A) the 36-month anniversary of the date of the Purchase Agreement and (B) the 36-month anniversary of the Commencement Date (if the Commencement shall have occurred), and (2) the six-month anniversary of the effective date of termination of the Purchase Agreement in accordance with its terms, effecting or entering into an agreement to effect a “variable rate transaction” whereby we issue and sell Common Stock or securities exercisable or convertible into Common Stock at a conversion price, exercise price, exchange rate or other price that is based on and/or varies with the trading price of Common Stock at any time after the initial issuance of such securities, that includes any reset to such prices after the initial date of issuance, or that includes any put, call, redemption, back-back, price reset or other similar provision, subject to certain exceptions.

We have the unconditional right, at any time, for any reason and without any payment or liability to us, to terminate the Purchase Agreement upon one business day’s prior written notice to Lincoln Park. In the event of bankruptcy proceedings by or against us that are not discharged within 90 days, the Purchase Agreement will automatically terminate without action of any party. No termination of the Purchase Agreement will be effective during the pendency of any Regular Purchase, accelerated purchase or additional accelerated purchase that has not then fully settled in accordance with the Purchase Agreement.

The Purchase Agreement and the CEF Registration Rights Agreement contain customary representations, warranties, conditions and indemnification obligations of the parties. Copies of the agreements have been filed as exhibits to the registration statement that includes this prospectus and are available electronically on the SEC’s website at www.sec.gov.

As of February 3, 2023, there were 1,849,270 shares of our Common Stock outstanding, of which 1,848,795 shares of our Common Stock were held by non-affiliates. Although the Purchase Agreement provides that we may sell up to an aggregate of \$10.0 million of our Common Stock to Lincoln Park, only 1,052,798 shares of our Common Stock are being registered for resale under this prospectus, which represents the 52,798 shares that we issued to Lincoln Park in the Private Placement and an additional 1,000,000 shares of our Common Stock that we may issue and sell to Lincoln Park in the future in the Committed Equity Financing under the Purchase Agreement, if and when we sell shares of our Common Stock to Lincoln Park under the Purchase Agreement. Depending on the market prices of our Common Stock at the time we elect to issue and sell shares of our Common Stock to Lincoln Park in the Committed Equity Financing under the Purchase Agreement, we may need to register for resale under the Securities Act additional shares of our Common Stock in order to receive aggregate gross proceeds equal to the \$10.0 million total commitment available to us under the Purchase Agreement. If all of the 1,000,000 shares of our Common Stock that may be sold to Lincoln Park in the future in the Committed Equity Financing under the Purchase Agreement that are being registered for resale by Lincoln Park hereunder were issued and outstanding as of the date of this prospectus (without taking into account the 19.99% Exchange Cap limitation applicable to the Committed Equity Financing under the Purchase Agreement), such shares of our Common Stock, taken together with the 52,798 shares of Common Stock that we issued and sold to Lincoln Park on February 3, 2023 in the Private Placement, would represent approximately 57% of the total number of shares of our Common Stock outstanding and approximately 57% of the total number of outstanding shares of our Common Stock held by non-affiliates of the Company, in each case as of February 3, 2023.

If it becomes necessary for us to issue and sell to Lincoln Park shares of Common Stock in excess of the Exchange Cap under the Purchase Agreement in order to receive aggregate gross proceeds equal to \$10,000,000 in the Committed Equity Financing under the Purchase Agreement, then for so long as the Exchange Cap continues to apply to the Committed Equity Financing, we must first obtain stockholder approval to issue shares of Common Stock in excess of the Exchange Cap under the Purchase Agreement in accordance with applicable Nasdaq rules. Furthermore, if we elect to issue and sell to Lincoln Park more than the 1,000,000 shares of our Common Stock that we may elect to issue and sell to Lincoln Park in the Committed Equity Financing under the Purchase Agreement that are being registered for resale by Lincoln Park hereunder, which we have the right, but not the obligation, to do, we must first file with the SEC one or more additional registration statements to register under the Securities Act for resale by Lincoln Park such additional shares of our Common Stock we wish to sell from time to time under the Purchase Agreement, which the SEC must declare effective, in each case before we may elect to sell any additional shares of our Common Stock to Lincoln Park in the Committed Equity Financing under the Purchase Agreement. Any issuance and sale by us under the Purchase Agreement of a substantial amount of shares of Common Stock in addition to the 1,000,000 shares of Common Stock being registered for resale by Lincoln Park under this prospectus could cause additional substantial dilution to our stockholders.

The number of shares of Common Stock relating to the Committed Equity Financing ultimately resold by Lincoln Park through this prospectus is dependent upon the total number of shares of Common Stock, if any, we elect to issue and sell to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement from and after Commencement and during the term of the Purchase Agreement. The issuance by us of our Common Stock to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted. Although the number of shares of Common Stock that our existing stockholders own will not decrease, the shares of Common Stock owned by our existing stockholders will represent a smaller percentage of our total outstanding Common Stock after any such issuance.

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 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 (781) 788-8869. Our website address is 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 stockholder named herein an aggregate of 1,052,798 shares of our Common Stock as described below.

Shares of our common stock offered by the selling stockholder:	Up to 1,052,798 shares of our Common Stock consisting of: <ul style="list-style-type: none">• 52,798 shares of Common Stock issued to Lincoln Park in the Private Placement; and• up to 1,000,000 shares of our Common Stock that we may issue and sell to Lincoln Park from time to time in the Committed Equity Financing under the Purchase Agreement from and after the Commencement Date.
Shares of our common stock outstanding prior to this offering	1,849,270 shares of our Common Stock, which includes the 52,798 shares issued to Lincoln Park in the Private Placement.
Shares of our common stock to be outstanding after giving effect to the issuance of the additional 1,000,000 shares of our Common Stock reserved for issuance and sale under the Purchase Agreement	2,849,270 shares of our Common Stock. The actual number of shares outstanding after this offering will vary depending upon the actual number of shares of Common Stock we elect to sell to Lincoln Park in the Committed Equity Financing under the Purchase Agreement from and after the Commencement Date.
Use of proceeds	We will receive no proceeds from the sale of shares of our Common Stock by Lincoln Park in this offering. We have received \$200,000 aggregate gross proceeds under the Securities Purchase Agreement from our sale to Lincoln Park of 52,798 shares of Common Stock and warrants to purchase up to an aggregate of 105,596 shares of Common Stock on February 3, 2023 in the Private Placement. We may also receive up to \$10.0 million aggregate gross proceeds from any sales of shares of our Common Stock we elect to make to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement after the Commencement Date, assuming that we sell the full amount of our Common Stock that we have the right, but not the obligation to sell to Lincoln Park under the Purchase Agreement. Any proceeds that we receive from sales of shares of our Common Stock to Lincoln Park in the Committed Equity Financing, together with the proceeds we received from Lincoln Park in the Private Placement, will be used to support our operations, including clinical trials, for working capital and for other general corporate purposes. See “Use of Proceeds.”
Risk factors	Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page 11 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.
Nasdaq Capital Market symbol	Our Common Stock is listed on The Nasdaq Capital Market under the symbol “KPRX.” On February 2, 2023, the last reported sale price of our Common Stock on The Nasdaq Capital Market was \$3.56.

The number of shares of our Common Stock to be outstanding after giving effect to the issuance of the additional 1,000,000 shares of our Common Stock reserved for issuance and sale under the Purchase Agreement is based on 1,849,270 shares of our Common Stock outstanding as of February 3, 2023, but does not include, as of such date:

- 334 shares of Common Stock exercised under our 2005 and 2014 Equity Incentive Plans, at a weighted-average exercise price of approximately \$1,063.07 per share;
- 84,751 shares of Common Stock issuable upon exercise of options outstanding under our 2005 Equity Incentive Plan and 2014 Equity Incentive Plan, at a weighted-average exercise price of approximately \$36.92 per share;
- 4,241 shares of our Common Stock granted through a restricted stock award and released under our 2005 and 2014 Equity Incentive Plans, at a weighted-average exercise price of approximately \$0 per share;

- 30,000 shares of our Common Stock granted through a restricted stock award subject to release under our 2005 and 2014 Equity Incentive Plans, at a weighted-average exercise price of approximately \$0 per share;
- 1,597,606 shares of our Common Stock issuable upon the exercise of outstanding warrants to purchase shares of our Common Stock with a weighted-average exercise price of \$21.22 per share, other than the warrants issued to Lincoln Park in the Private Placement as noted below
- the 105,596 warrants issued to Lincoln Park in the Private Placement, with an exercise price of \$3.538 per share;
- 100,824 shares of Common Stock reserved for future issuance under our 2014 Equity Incentive Plan;
- 191 shares of Common Stock reserved for future issuance under our 2014 Employee Stock Purchase Plan; and
- 52 shares of Common Stock issuable upon the conversion of outstanding shares of Series D Convertible Preferred Stock.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision with respect to our securities, we urge you to carefully consider the risks described in the "Risk Factors" sections of our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as well as our Current Reports on Form 8-K, filed with the SEC and incorporated by reference into this prospectus. In addition, the following risk factors present material risks and uncertainties associated with this offering. The risks and uncertainties incorporated by reference into this prospectus or described below are not the only ones we face. Additional risks and uncertainties not presently known or which we consider immaterial as of the date hereof may also have an adverse effect on our business. If any of the matters discussed in the following risk factors were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially and adversely affected, the market price of our common stock could decline and you could lose all or part of your investment in our securities.

Risks Related to the Offering

It is not possible to predict the actual number of shares we may sell to Lincoln Park in the Committed Equity Financing under the Purchase Agreement, or the actual gross proceeds resulting from those sales.

On February 3, 2023, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has committed to purchase up to \$10.0 million of our Common Stock in the Committed Equity Financing, subject to certain limitations and conditions set forth in the Purchase Agreement. The shares of our Common Stock that may be issued under the Purchase Agreement may be sold by us to Lincoln Park at our discretion from time to time over an approximately 36-month period commencing on the Commencement Date.

We generally have the right to control the timing and amount of any sales of our shares of Common Stock to Lincoln Park under the Purchase Agreement. Sales of our Common Stock, if any, to Lincoln Park under the Purchase Agreement will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some or none of the shares of our Common Stock that may be available for us to sell to Lincoln Park pursuant to the Purchase Agreement.

Because the purchase price per share to be paid by Lincoln Park for the shares of Common Stock that we may elect to sell to Lincoln Park under the Purchase Agreement, if any, will fluctuate based on the market prices of our Common Stock at the time we elect to sell shares to Lincoln Park pursuant to the Purchase Agreement, if any, it is not possible for us to predict, as of the date of this prospectus and prior to any such sales, the number of shares of Common Stock that we will sell to Lincoln Park under the Purchase Agreement, the purchase price per share that Lincoln Park will pay for shares purchased from us under the Purchase Agreement, or the aggregate gross proceeds that we will receive from those purchases by Lincoln Park under the Purchase Agreement.

Moreover, although the Purchase Agreement provides that we may sell up to an aggregate of \$10.0 million of our Common Stock to Lincoln Park in the Committed Equity Financing, only 1,052,798 shares of Common Stock are being registered for resale under the registration statement that includes this prospectus, consisting of (i) the 52,798 shares of Common Stock that we previously issued to Lincoln Park in the Private Placement and (ii) up to 1,000,000 shares of our Common Stock that we may elect to sell to Lincoln Park, in our sole discretion, from time to time from and after the Commencement Date in the Committed Equity Financing under the Purchase Agreement.

If after the Commencement Date we elect to sell to the selling stockholder all of the 1,000,000 shares of Common Stock being registered for resale under this prospectus that are available for sale by us to the selling stockholder in purchases in the Committed Equity Financing under the Purchase Agreement, depending on the market prices of our Common Stock at the time of such sales, the actual gross proceeds from the sale of all such shares in the Committed Equity Financing may be substantially less than the \$10.0 million total purchase commitment available to us under the Purchase Agreement, which could materially adversely affect our liquidity.

If it becomes necessary for us to issue and sell to Lincoln Park shares of Common Stock in excess of the Exchange Cap under the Purchase Agreement in order to receive aggregate gross proceeds equal to \$10,000,000 in the Committed Equity Financing under the Purchase Agreement, then for so long as the Exchange Cap continues to apply to the Committed Equity Financing, we must first obtain stockholder approval to issue shares of Common Stock in excess of the Exchange Cap under the Purchase Agreement in accordance with applicable Nasdaq rules. Furthermore, if we elect to issue and sell to Lincoln Park more than the 1,000,000 shares of our Common Stock that we may elect to issue and sell to Lincoln Park in the Committed Equity Financing under the Purchase Agreement that are being registered for resale by Lincoln Park hereunder, which we have the right, but not the obligation, to do, we must first file with the SEC one or more additional registration statements to register under the Securities Act for resale by Lincoln Park such additional shares of our Common Stock we wish to sell from time to time under the Purchase Agreement, which the SEC must declare effective, in each case before we may elect to sell any additional shares of our Common Stock to Lincoln Park in the Committed Equity Financing under the Purchase Agreement. Any issuance and sale by us under the Purchase Agreement of a substantial amount of shares of Common Stock in addition to the 1,000,000 shares of Common Stock being registered for resale by Lincoln Park under this prospectus could cause additional substantial dilution to our stockholders. The number of shares of our Common Stock ultimately offered for sale by Lincoln Park is dependent upon the number of shares of Common Stock we ultimately sell to Lincoln Park in the Committed Equity Financing under the Purchase Agreement.

Investors who buy shares at different times will likely pay different prices.

Pursuant to the Purchase Agreement, we will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold to Lincoln Park in the Committed Equity Financing. If and when we do elect to sell shares of our Common Stock to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement, after Lincoln Park has acquired such shares, Lincoln Park may resell all, some or none of such shares at any time or from time to time in its discretion and at different prices. As a

result, investors who purchase shares from Lincoln Park in this offering at different times will likely pay different prices for those shares, and so may experience different levels of dilution and in some cases substantial dilution and different outcomes in their investment results. Investors may experience a decline in the value of the shares they purchase from Lincoln Park in this offering as a result of future sales made by us to Lincoln Park at prices lower than the prices such investors paid for their shares in this offering.

We may not have access to the full amount available in the Committed Equity Financing under the Purchase Agreement with Lincoln Park. We may require additional financing to sustain our operations, without which we may not be able to continue operations, and the terms of subsequent financings may adversely impact our stockholders.

We may direct Lincoln Park to purchase up to \$10.0 million worth of shares of our Common Stock from time to time in the Committed Equity Financing under the Purchase Agreement over a 36-month period generally in amounts up to 35,000 shares of our Common Stock, which may be increased to up to 50,000 shares of our Common Stock depending on the market price of our Common Stock at the time of sale, provided that Lincoln Park's committed obligation under such single Regular Purchase shall not exceed \$1,000,000.

Depending on the prevailing market price of our Common Stock, we may not be able to sell shares to Lincoln Park for the maximum \$10.0 million over the term of the Purchase Agreement. We will need to seek stockholder approval before issuing more than 359,114 shares in the Committed Equity Financing under the Purchase Agreement, unless the average price of all applicable sales of our Common Stock to Lincoln Park under the Purchase Agreement equals or exceeds \$3.538 per share (which represents the lower of (A) the official closing price of our Common Stock on Nasdaq on the trading day immediately preceding the date of the Purchase Agreement and (B) the average official closing price of our Common Stock on Nasdaq for the five consecutive trading days ending on the trading day immediately preceding the date of the Purchase Agreement), so that the Exchange Cap limitation will not apply to issuances and sales of Common Stock in the Committed Equity Financing under applicable Nasdaq rules. We are not required or permitted to issue any shares of Common Stock in the Committed Equity Financing under the Purchase Agreement if such issuance would breach our obligations under the rules or regulations of The Nasdaq Stock Market. In addition, Lincoln Park will not be required to purchase any shares of our Common Stock if such sale would result in Lincoln Park's beneficial ownership of our Common Stock exceeding 9.99% of the outstanding shares of our Common Stock. Our inability to access a portion or the full amount available under the Purchase Agreement, in the absence of any other financing sources, could have a material adverse effect on our business.

The extent we rely on Lincoln Park as a source of funding will depend on a number of factors including the prevailing market price of our Common Stock and the extent to which we are able to secure working capital from other sources. If obtaining sufficient funding from Lincoln Park were to prove unavailable or prohibitively dilutive, we will need to secure another source of funding in order to satisfy our working capital needs. Even if we sell all \$10.0 million of shares of our Common Stock in the Committed Equity Financing under the Purchase Agreement to Lincoln Park, we may still need additional capital to finance our future production plans and working capital needs, and we may have to raise funds through the issuance of equity or debt securities. Assuming a purchase price of \$3.56 (which represents the closing price of our Common Stock on February 2, 2023), the purchase by Lincoln Park of the 52,798 shares issued in the Private Placement and the entire 1,000,000 additional shares issuable under the Purchase Agreement being registered hereunder would result in gross proceeds to us of only \$3,747,961.

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Depending on the type and the terms of any financing we pursue, stockholders' rights and the value of their investment in our Common Stock could be reduced. A financing could involve one or more types of securities including Common Stock, convertible debt or warrants to acquire Common Stock. These securities could be issued at or below the then prevailing market price for our Common Stock. In addition, if we issue secured debt securities, the holders of the debt would have a claim to our assets that would be prior to the rights of stockholders until the debt is paid. Interest on these debt securities would increase costs and negatively impact operating results. If the issuance of new securities results in diminished rights to holders of our Common Stock, the market price of our Common Stock could be negatively impacted.

Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, the consequences could be a material adverse effect on our business, operating results, financial condition and prospects.

Our management will have broad discretion over the use of the net proceeds from our sale of shares of Common Stock to Lincoln Park in the Private Placement and in the Committed Equity Financing, you may not agree with how we use the proceeds and the proceeds may not be invested successfully.

Our management will have broad discretion as to the use of the net proceeds from our sale of shares of Common Stock to Lincoln Park in the Private Placement and in the Committed Equity Financing, and we could use them for purposes other than those contemplated at the time of commencement of this offering. Accordingly, you will be relying on the judgment of our management with regard to the use of those net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that, pending their use, we may invest those net proceeds in a way that does not yield a favorable, or any, return for us. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flows.

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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 the global response thereto; and
- our use of proceeds from this offering.

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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.

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MARKET FOR COMMON STOCK

Our common stock is listed on The Nasdaq Capital Market under the symbol “KPRX”. On February 2, 2023, the last reported sale price of our common stock as reported by The Nasdaq Capital Market was \$3.56 per share. As of such date, we had approximately 53 stockholders of record.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain future earnings, if any, and all currently available funds for use in the operation of our business and do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our Board of Directors after considering our financial condition, results of operations, capital requirements, business prospects and other factors the Board of Directors deems relevant, and subject to the restrictions contained in our current or future financing instruments.

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USE OF PROCEEDS

This prospectus relates to shares of our Common Stock that may be offered and sold from time to time by Lincoln Park. We will receive no proceeds from the sale of shares of Common Stock by Lincoln Park in this offering. We have received \$200,000 aggregate gross proceeds under the Securities Purchase Agreement from our sale to Lincoln Park of 52,798 shares of Common Stock and warrants to purchase up to an aggregate of 105,596 shares of Common Stock on February 3, 2023 in the Private Placement, and we may receive additional aggregate gross proceeds of up to \$10.0 million from sales of common stock we may elect to make to Lincoln Park in our sole discretion from time to time from and after the Commencement Date in the Committed Equity Financing pursuant to the Purchase Agreement. We estimate that the total aggregate net proceeds to us from the sale of our Common Stock and Warrants to Lincoln Park in the Private Placement and from the sale of our Common Stock to Lincoln Park in the Committed Equity Facility would be up to \$10.1 million over an approximately 36-month period, assuming that we sell the full amount of our Common Stock that we have the right, but not the obligation, to sell to Lincoln Park in the Committed Equity Financing under the Purchase Agreement, and after other estimated fees and expenses. See “Plan of Distribution” elsewhere in this prospectus for more information.

Any proceeds from that we receive from Lincoln Park in the Private Placement and in the Committed Equity Financing are expected to be used, together with other available funds, to support our operations, including 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 these expenditures will depend on a number of factors, such as the timing and progress of our research and development efforts, regulatory matters affecting our product candidates and our business, and the competitive environment for our product candidates. As we are unable to predict the timing or amount of potential issuances of all of the additional shares issuable to the Purchase Agreement, we cannot specify with certainty all of the particular uses for the net proceeds that we will have from the sale of such additional shares. Accordingly, our management will have broad discretion in the application of the net proceeds. We may also use a portion of the net proceeds to acquire or invest in complementary businesses, technologies, product candidates or other intellectual property,

although we have no present commitments or agreements to do so. We may use the proceeds for purposes that are not contemplated at the time of this offering. Pending use of the proceeds as described above, we intend to invest the net proceeds of this offering in short-term, interest-bearing, investment-grade securities or certificates of deposit.

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, the incurrence of debt and other available sources.

THE LINCOLN PARK TRANSACTIONS

The Private Placement

On February 2, 2023, we entered into the Securities Purchase Agreement with Lincoln Park pursuant to which we issued and sold to Lincoln Park (i) 52,798 shares of Common Stock and (ii) warrants to purchase up to 105,596 shares of Common Stock at an exercise price of \$3.538 per share (subject to pro rata adjustments for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction), for an aggregate gross purchase price of \$200,000, in the Private Placement. The Private Placement closed on February 3, 2023. The warrants will become exercisable on the Initial Exercise Date, which is the six-month anniversary of the closing date (*i.e.*, August 3, 2023), and thereafter at any time during the five-year period following the Initial Exercise Date. If a registration statement registering the resale of the shares of Common Stock underlying the warrants is not effective under the Securities Act and available for use by the holder of the warrants at the time of exercise on or after the Initial Exercise Date, the warrants may be exercised by means of a “cashless” exercise formula. The warrants do not contain 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 its 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.

On February 2, 2023 and simultaneously with the execution of the Securities Purchase Agreement, we entered into the Private Placement Registration Rights Agreement. The Private Placement Registration Rights Agreement provides that if, at any time during the period from and after the closing date of the Private Placement through and including the six-month anniversary of the closing date, we propose to file a registration statement with the SEC for our own account or for the account of one or more third parties other than us or any of our subsidiaries (including any offering to be made on a delayed or continuous basis under Rule 415 under the Securities Act), such as the registration statement that includes this prospectus, which was filed by us with the SEC pursuant to our obligations under the registration rights agreement that we entered into with Lincoln Park relating to the Committed Equity Facility for the purpose of registering under the Securities Act for resale by Lincoln Park shares of Common Stock that may be issued and sold by us to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement, then Lincoln Park may elect to have the 52,798 shares of Common Stock that were issued and sold by us to Lincoln Park in the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023 also included in such registration statement in order to register under the Securities Act the resale by Lincoln Park of such 52,798 shares of Common Stock that were issued and sold by us to Lincoln Park in the Private Placement. However, the Private Placement Registration Rights Agreement does not afford any registration rights with respect to the warrants that were issued and sold by us to Lincoln Park in the Private Placement, or with respect to the 105,596 shares of Common Stock underlying such warrants. Therefore, none of the warrants or the 105,596 shares of Common Stock underlying such warrants that were issued and sold by us to Lincoln Park in the Private Placement on February 3, 2023 are being registered for resale in the registration statement that includes this prospectus, or any other registration statement of ours that has been filed with the SEC as of the date of this prospectus.

The 52,798 shares of Common Stock and the warrants to purchase up to 105,596 shares of Common Stock that were issued and sold by us to Lincoln Park in the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023, and the 105,596 shares of Common Stock in the aggregate issuable upon full exercise of the warrants in accordance with the terms of the warrants, have been and will be issued and sold by us to Lincoln Park in the Private Placement in reliance upon the exemptions from the registration requirements of the Securities Act afforded by Section 4(a)(2) of the Securities Act and Rule 506(b) of Regulation D promulgated thereunder.

Lincoln Park has represented to us that at no time prior to our execution of the Securities Purchase Agreement and the Private Placement Registration Rights Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our Common Stock or any hedging transaction, which establishes a net short position with respect to our Common Stock.

There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Securities Purchase Agreement or the Private Placement Registration Rights Agreement, except that we (i) are prohibited (with certain specified exceptions) from, among other things, until the earlier of (1) the first business day following the date a registration statement registering the shares of Common Stock sold in the Private Placement for resale is declared effective and (2) the six-month anniversary of the closing of the Private Placement, effecting or entering into an agreement to effect a “variable rate transaction” whereby we issue and sell Common Stock or securities exercisable or convertible into Common Stock at a conversion price, exercise price, exchange rate or other price that is based on and/or varies with the trading price of Common Stock at any time after the initial issuance of such securities, that includes any reset to such prices after the initial date of issuance, or that includes any put, call, redemption, back-back, price reset or other similar provision, subject to certain exceptions, and (ii) will be required to pay certain liquidated damages to Lincoln Park if (A) for so long as Lincoln Park owns any shares of Common Stock, warrants or shares of Common Stock issued or issuable upon exercise of the warrants acquired by Lincoln Park in the Private Placement (or until such earlier date as none of the warrants remain outstanding), we fail for any reason to satisfy the current public information requirement under Rule 144(c) under the Securities Act, until such time as such requirement is no longer required in order for Lincoln Park to resell such securities pursuant to Rule 144 under the Securities Act, or (B) we fail to deliver to Lincoln Park the shares of Common Stock, including shares of Common Stock issuable upon exercise of the warrants, purchased by Lincoln Park in the Private Placement free of restrictive legends or any other restrictions on transfer thereof within a specified period set forth in the Securities Purchase Agreement.

The Securities Purchase Agreement and the Private Placement Registration Rights Agreement contain customary representations, warranties, conditions and indemnification obligations of the parties. Copies of the Securities Purchase Agreement and the Private Placement Registration Rights Agreement have been filed as exhibits to the registration statement that includes this prospectus and are available electronically on the SEC’s website at www.sec.gov.

The Committed Equity Financing

General

On February 3, 2023, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has agreed to purchase from us up to an aggregate of \$10.0 million of our Common Stock (subject to certain limitations), from time to time and at our sole discretion over the term of the Purchase Agreement. Also on February 3, 2023, we entered into the CEF Registration Rights Agreement, pursuant to which we filed with the SEC the registration statement that includes this prospectus to register under the Securities Act for resale by Lincoln Park the shares of our Common Stock that we may elect to issue and sell to Lincoln Park from time to time from and after the date of this

prospectus in connection with the Committed Equity Financing under the Purchase Agreement.

This prospectus relates to the offer and resale by Lincoln Park of up to 1,052,798 shares of our Common Stock, consisting of: (i) 52,798 shares of Common Stock that we have issued and sold to Lincoln in the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023, in which we issued and sold to Lincoln Park 52,798 shares of Common Stock and warrants to purchase up to an aggregate of 105,596 shares of Common Stock, at a purchase price per unit consisting of one share of Common Stock and two warrants of \$3.788, and for a total purchase price of \$200,000 (none of the warrants or the 105,596 shares of Common Stock underlying such warrants are being registered for resale in the registration statement that includes this prospectus), and (ii) up to 1,000,000 shares of Common Stock that we have reserved for issuance and sale to Lincoln Park in the Committed Equity Financing under the Purchase Agreement from time to time from and after the Commencement Date, if and when we determine to sell shares of our Common Stock to Lincoln Park in the Committed Equity Financing under the Purchase Agreement.

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We do not have the right to commence any sales of Purchase Shares to Lincoln Park under the Purchase Agreement until all of the conditions set forth in the Purchase Agreement have been satisfied on the Commencement Date, including that the registration statement that includes this prospectus is declared effective by the SEC and a final prospectus relating thereto is filed with the SEC. From and after the Commencement Date, on any business day selected by us as the purchase date therefor, we may, from time to time and at our sole discretion for a period of up to 36-months after the Commencement Date, by written notice delivered by us to Lincoln Park, direct Lincoln Park to purchase up to 35,000 shares of Common Stock (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement) in a Regular Purchase, at a purchase price per share that will be determined and fixed in accordance with the Purchase Agreement at the time we deliver such written notice to Lincoln Park on the purchase date for such Regular Purchase. The maximum share limit for a Regular Purchase shall be increased to higher share threshold amounts in the Purchase Agreement, up to a maximum share limit of 50,000 shares of Common Stock (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement), with the applicable maximum share limit determined by whether the closing price for our Common Stock on the applicable purchase date exceeds certain price thresholds set forth in the Purchase Agreement. In any case, however, Lincoln Park's maximum purchase commitment in any single Regular Purchase may not exceed \$1,000,000. The per share purchase price for the shares of Common Stock sold in each such Regular Purchase, if any, will be based on prevailing market prices of our Common Stock immediately preceding the time of sale as computed under the Purchase Agreement. We may direct Lincoln Park to purchase shares of our Common Stock in a Regular Purchase on any business day we select as the purchase date for such Regular Purchase and as often as every business day, provided that all shares of Common Stock subject to all prior Regular Purchases that we have effected under the Purchase Agreement, if any, have been received by Lincoln Park before we deliver notice to Lincoln Park for such Regular Purchase in accordance with the Purchase Agreement.

In addition to Regular Purchases described above, provided that (i) we have directed Lincoln Park to purchase the maximum amount of Common Stock that we are then able to sell to Lincoln Park in a Regular Purchase on the applicable purchase date therefor and (ii) the closing sale price of our Common Stock on such applicable purchase date for such Regular Purchase is not below \$1.00 per share (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement), we may, in our sole discretion, also direct Lincoln Park to purchase additional shares of Common Stock in "accelerated purchases" and "additional accelerated purchases" as set forth in the Purchase Agreement, provided further that all shares of Common Stock purchased by Lincoln Park pursuant to all prior Regular Purchases, accelerated purchases and additional accelerated purchases (as applicable) that we have effected under the Purchase Agreement have been received by Lincoln Park before we deliver notice to Lincoln Park for the applicable accelerated purchase (and with respect to an additional accelerated purchase, before we deliver notice to Lincoln Park for such applicable additional accelerated purchase) in accordance with the Purchase Agreement. The purchase price per share of Common Stock to be paid by Lincoln Park for shares of Common Stock that we elect to sell to Lincoln Park in any accelerated purchase (or in any additional accelerated purchase, as applicable) will be based on prevailing market prices of our Common Stock at the time of sale as computed under the Purchase Agreement.

Under the applicable Nasdaq rules, in no event may we issue to Lincoln Park in connection with the Committed Equity Financing under the Purchase Agreement more than the Exchange Cap of 359,114 shares of our Common Stock, which number of shares is equal to 19.99% of the shares of Common Stock outstanding immediately prior to the execution of the Purchase Agreement, unless (i) we obtain stockholder approval to issue shares of Common Stock in excess of the Exchange Cap in accordance with applicable Nasdaq rules, or (ii) the average price per share paid by Lincoln Park for all of the shares of Common Stock that we direct Lincoln Park to purchase from us pursuant to the Purchase Agreement, if any, equals or exceeds \$3.538 per share (representing the lower of the official closing price of our Common Stock on Nasdaq on the trading day immediately preceding the date of the Purchase Agreement and the average official closing price of our Common Stock on Nasdaq for the five consecutive trading days ending on the trading day immediately preceding the date of the Purchase Agreement) so that the Exchange Cap limitation would not apply to issuances and sales of Common Stock in the Committed Equity Financing under applicable Nasdaq rules. In any event, the Purchase Agreement specifically provides that we may not issue or sell any shares of our Common Stock under the Purchase Agreement if such issuance or sale would breach any applicable Nasdaq rules or regulations.

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The Purchase Agreement also provides that we may not under any circumstances issue or sell any shares of Common Stock to Lincoln Park under the Purchase Agreement which, when aggregated with all other shares of Common Stock then beneficially owned by Lincoln Park and its affiliates (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 thereunder), would result in Lincoln Park beneficially owning more than the Beneficial Ownership Cap of 9.99% of our outstanding Common Stock.

We will control the timing and amount of any sales of our Common Stock to Lincoln Park pursuant to the Purchase Agreement. Lincoln Park has no right to require us to sell any shares of Common Stock to them under the Purchase Agreement, however Lincoln Park is obligated to make purchases of our Common Stock as we may properly direct Lincoln Park to purchase under the Purchase Agreement, upon the terms and subject to the satisfaction of the conditions set forth therein. Neither we nor Lincoln Park may assign or transfer our respective rights and obligations under the Purchase Agreement, and no provision of the Purchase Agreement or the CEF Registration Rights Agreement may be modified or waived by us or Lincoln Park. Actual sales of shares of Common Stock to Lincoln Park will depend on a variety of factors to be determined by us from time to time, including, among others, market conditions, the trading price of the Common Stock and determinations by us as to the appropriate sources of funding for us and our operations.

The Purchase Agreement and the CEF Registration Rights Agreement contain customary representations, warranties, conditions and indemnification obligations of the parties. Copies of the agreements have been filed as exhibits to the registration statement that includes this prospectus and are available electronically on the SEC's website at www.sec.gov.

Purchase of Shares of our Common Stock under the Purchase Agreement

Regular Purchases

From and after the Commencement Date, on any business day selected by us (and provided all shares of Common Stock subject to all prior Regular Purchases have been properly delivered to Lincoln Park in accordance with the Purchase Agreement), we may, by written notice delivered by us to Lincoln Park, direct Lincoln Park to purchase up to 35,000 shares of our Common Stock on such business day in a Regular Purchase, provided, however, that the maximum number of shares we may sell to Lincoln Park in a Regular Purchase may be increased to up to (i) 40,000 shares of our Common Stock, provided that the closing sale price of our Common Stock is not below \$6.00 on the

purchase date, (ii) 45,000 shares of our Common Stock, provided that the closing sale price of our Common Stock is not below \$8.00 on the purchase date, and (iii) 50,000 shares of our Common Stock, provided that the closing sale price of our Common Stock is not below \$10.00 on the purchase date (such share amount limitation, the “Regular Purchase Share Limit”). In each case, Lincoln Park’s maximum commitment in any single Regular Purchase may not exceed \$1,000,000.

The purchase price per share for each such Regular Purchase will be equal to 98.5% of the lower of:

- the lowest sale price for our Common Stock on the purchase date for such shares of our Common Stock; and
- the average of the three lowest closing sale prices for our Common Stock during the 10 consecutive business days ending on the business day immediately preceding the purchase date of such shares of our Common Stock.

Accelerated Purchases

In addition to Regular Purchases described above, on any purchase date for a Regular Purchase on which we have properly submitted a Regular Purchase notice directing Lincoln Park to purchase the maximum number of shares of our Common Stock that we are then permitted to include in a single Regular Purchase notice, and provided that (i) the closing price of our Common Stock on such purchase date is not below \$1.00 per share (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement) and (ii) all shares of Common Stock subject to all prior purchases effected prior to such purchase date have been properly delivered to Lincoln Park in accordance with the Purchase Agreement, we may also direct Lincoln Park to purchase an additional amount of our Common Stock, which we refer to as an Accelerated Purchase, on the next business day following such purchase date for such corresponding Regular Purchase, which we refer to as the Accelerated Purchase Date, not to exceed the lesser of:

- 20% of the aggregate number of shares of our Common Stock traded during all or, if certain trading volume or market price thresholds specified in the Purchase Agreement are crossed on the applicable Accelerated Purchase Date, the portion of the normal trading hours on the applicable Accelerated Purchase Date prior to such time that any one of such thresholds is crossed, which period of time on the applicable Accelerated Purchase Date we refer to as the Accelerated Purchase Measurement Period; and
- 200% of the number of purchase shares purchased pursuant to the corresponding Regular Purchase.

The purchase price per share for the shares subject to an Accelerated Purchase will be equal to 97% of the lower of:

- the volume weighted average price of our Common Stock during the Accelerated Purchase Measurement Period on the applicable Accelerated Purchase Date; and
- the closing sale price of our Common Stock on the applicable Accelerated Purchase Date.

Additional Accelerated Purchases

We may also direct Lincoln Park, not later than 1:00 p.m., Eastern time, on the same Accelerated Purchase Date on which an Accelerated Purchase Measurement Period for an Accelerated Purchase has ended prior to such time, and provided that (i) the closing price of our Common Stock on the business day immediately preceding such Accelerated Purchase Date is not below \$1.00 per share (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the Purchase Agreement) and (ii) all shares of Common Stock subject to all prior Regular Purchases, Accelerated Purchases and Additional Accelerated Purchases, including those prior Accelerated Purchases and Additional Accelerated Purchases effected on the same Accelerated Purchase Date as the applicable Additional Accelerated Purchase, have been properly delivered to Lincoln Park in accordance with the Purchase Agreement prior to such time), to purchase an additional amount of our Common Stock on such same Accelerated Purchase Date, which we refer to as an Additional Accelerated Purchase, of up to the lesser of:

- 20% of the aggregate number of shares of our Common Stock traded during the portion of the normal trading hours on the applicable Accelerated Purchase Date determined in accordance with the Purchase Agreement, which period of time on the applicable Accelerated Purchase Date we refer to as the Additional Accelerated Purchase Measurement Period; and
- 200% of the number of purchase shares purchased pursuant to the Regular Purchase corresponding to the Accelerated Purchase effected on such same Accelerated Purchase Date.

The purchase price per share for the shares subject to an Additional Accelerated Purchase will be equal to 97% of the lower of:

- the volume weighted average price of our Common Stock during the applicable Additional Accelerated Purchase Measurement Period for such Additional Accelerated Purchase; and
- the closing sale price of our Common Stock on the applicable same Accelerated Purchase Date.

We may, in our sole discretion, submit multiple Additional Accelerated Purchase notices to Lincoln Park prior to 1:00 p.m., Eastern time, on a single Accelerated Purchase Date, again provided all shares of Common Stock subject to all prior Regular Purchases, Accelerated Purchases and Additional Accelerated Purchases, including those prior Accelerated Purchases and Additional Accelerated Purchases effected on the same Accelerated Purchase Date as the applicable Additional Accelerated Purchase, have been properly delivered to Lincoln Park in accordance with the Purchase Agreement prior to such time.

In the case of Regular Purchases, Accelerated Purchases and Additional Accelerated Purchases, the purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring during the business days used to compute the purchase price.

Other than as described above, there are no trading volume requirements or restrictions under the Purchase Agreement, and we will control the timing and amount of any sales of our Common Stock to Lincoln Park.

Events of Default

Events of default under the Purchase Agreement include the following:

- the effectiveness of the registration statement of which this prospectus forms a part lapses for any reason (including, without limitation, the issuance of a stop order), or any required prospectus supplement and accompanying prospectus are unavailable for the resale by Lincoln Park of our Common Stock offered hereby, and such lapse or unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period;
- suspension by our principal market of our Common Stock from trading for a period of one business day;
- the de-listing of our Common Stock from the Nasdaq Capital Market, our principal market, provided our Common Stock is not immediately thereafter trading on the New York Stock Exchange, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the NYSE American, the NYSE Arca, or the OTCQX Best Market or the OTCQB Venture Market operated by OTC Markets Group Inc. (or nationally recognized successor thereto);
- any breach of the representations or warranties or covenants contained in the Purchase Agreement or Registration Rights Agreement that has or could have a material adverse effect on us and, in the case of a breach of a covenant that is reasonably curable, that is not cured within five business days;
- any voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us;
- if at any time we are not eligible to transfer our Common Stock electronically; or
- if at any time the Exchange Cap (to the extent applicable under the terms of the Purchase Agreement) is reached and our stockholders have not approved the issuance of Common Stock in excess of the Exchange Cap in accordance with applicable Nasdaq rules.

Lincoln Park does not have the right to terminate the Purchase Agreement upon any of the events of default set forth above, although the Purchase Agreement would automatically terminate in the event of any voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us that are not discharged within 90 days. During an event of default, all of which are outside of Lincoln Park's control, we may not direct Lincoln Park to purchase any shares of our Common Stock under the Purchase Agreement.

Our Termination Rights

We have the unconditional right, at any time, for any reason and without any payment or liability to us, to terminate the Purchase Agreement upon one business day's prior written notice to Lincoln Park. In the event of bankruptcy proceedings by or against us that are not discharged within 90 days, the Purchase Agreement will automatically terminate without action of any party. No termination of the Purchase Agreement will be effective during the pendency of any Regular Purchase, Accelerated Purchase or Additional Accelerated Purchase that has not then fully settled in accordance with the Purchase Agreement.

No Short-Selling or Hedging by Lincoln Park

Lincoln Park has represented to us that at no time prior to the Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our Common Stock or any hedging transaction, which establishes a net short position with respect to our Common Stock. Lincoln Park agreed that during the term of the Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

Prohibitions on Certain Transactions

There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement or the CEF Registration Rights Agreement, except that we are prohibited (with certain specified exceptions) from, among other things, until the earlier of (1) the later of (A) the 36-month anniversary of the date of the Purchase Agreement and (B) the 36-month anniversary of the Commencement Date (if the Commencement shall have occurred), and (2) the six-month anniversary of the effective date of termination of the Purchase Agreement in accordance with its terms, effecting or entering into an agreement to effect a "variable rate transaction" whereby we issue and sell Common Stock or securities exercisable or convertible into Common Stock at a conversion price, exercise price, exchange rate or other price that is based on and/or varies with the trading price of Common Stock at any time after the initial issuance of such securities, that includes any reset to such prices after the initial date of issuance, or that includes any put, call, redemption, back-back, price reset or other similar provision, subject to certain exceptions.

Effect of Performance of the Purchase Agreement on Our Stockholders

All 1,000,000 shares of our Common Stock being registered for resale hereunder which have been or may be issued or sold by us to Lincoln Park under the Purchase Agreement are expected to be freely tradable. It is anticipated that shares registered in this offering will be sold from time to time over a period of up to 36 months commencing on the date that the registration statement including this prospectus becomes effective. The sale by Lincoln Park of a significant amount of shares of our Common Stock registered in this offering at any given time could cause the market price of our Common Stock to decline and to be highly volatile. Sales of our Common Stock to Lincoln Park, if any, will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some or none of the additional shares of our Common Stock that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell additional shares of our Common Stock to Lincoln Park, after Lincoln Park has acquired the shares of our Common Stock, Lincoln Park may resell all, some or none of those shares of our Common Stock at any time or from time to time in its discretion. Therefore, sales to Lincoln Park by us under the Purchase Agreement may result in substantial dilution to the interests of other holders of our Common Stock. In addition, if we sell a substantial number of shares of our Common Stock to Lincoln Park under the Purchase Agreement, or if investors expect that we will do so, the actual sales of shares of our Common Stock or the mere existence of our arrangement with Lincoln Park may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales. However, we have the right to control the timing and amount of any additional sales of our Common Stock to Lincoln Park and the Purchase Agreement may be terminated by us at any time at our discretion without any cost to us.

Although the Purchase Agreement provides that we may sell up to an aggregate of \$10.0 million of our Common Stock to Lincoln Park, only 1,052,798 shares of our Common Stock are being registered for resale under this prospectus, which represents the 52,798 shares that we issued to Lincoln Park in the Private Placement and an additional 1,000,000 shares of our Common Stock that we may issue and sell to Lincoln Park in the future in the Committed Equity Financing under the Purchase Agreement, if and when we sell shares of our Common Stock to Lincoln Park under the Purchase Agreement. If it becomes necessary for us to issue and sell to Lincoln Park shares of Common Stock in excess of the Exchange Cap under the Purchase Agreement in order to receive aggregate gross proceeds equal to \$10,000,000 in the Committed Equity Financing under the Purchase Agreement, then for so long as the Exchange Cap continues to apply to the Committed Equity Financing, we must first obtain stockholder approval to issue shares of Common Stock in excess of the Exchange Cap under the Purchase Agreement in accordance with applicable Nasdaq rules. Furthermore, if we elect to issue and sell to Lincoln Park more than the 1,000,000 shares of our Common Stock that we may elect to issue and sell to Lincoln Park in the Committed Equity Financing under the Purchase Agreement that are being registered for resale by Lincoln Park hereunder, which we have the right, but not the obligation, to do, we must first file with the SEC one or more additional registration statements to register under the Securities Act for resale by Lincoln Park such additional shares of our Common Stock we wish to sell from time to time under the Purchase Agreement, which the SEC must declare effective, in each case before we may elect to sell any additional shares of our Common Stock to Lincoln Park in the Committed Equity Financing under the Purchase Agreement. Any issuance and sale by us under the Purchase Agreement of a substantial amount of shares of Common Stock in addition to the 1,000,000 shares of Common Stock being registered for resale by Lincoln Park under this prospectus could cause additional substantial dilution to our stockholders. The number of shares of our Common Stock ultimately offered for resale by Lincoln Park is dependent upon the number of shares of our Common Stock we

The number of shares of Common Stock relating to the Committed Equity Financing ultimately resold by Lincoln Park through this prospectus is dependent upon the total number of shares of Common Stock, if any, we elect to issue and sell to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement from and after Commencement and during the term of the Purchase Agreement. The issuance by us of our Common Stock to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted. Although the number of shares of Common Stock that our existing stockholders own will not decrease, the shares of Common Stock owned by our existing stockholders will represent a smaller percentage of our total outstanding Common Stock after any such issuance.

The following table sets forth the amount of gross proceeds we would receive from Lincoln Park from our sale of up to 1,000,000 shares of our Common Stock that we are registering hereby that we may issue and sell to Lincoln Park in the future under the Purchase Agreement at varying purchase prices from and after commencement:

Assumed Average Purchase Price Per Share	Number of Registered Shares of our Common Stock to be Issued if Full Purchase(1)		Percentage of Outstanding Shares of our Common Stock After Giving Effect to the Issuance to Lincoln Park(2)	Gross Proceeds from the Sale of Shares of our Common Stock to Lincoln Park Under the Purchase Agreement(1)
	Number	Percent		
\$ 2.00	1,000,000	35.1%		2,000,000
\$ 3.00	1,000,000	35.1%	\$	3,000,000
\$ 3.56(3)	1,000,000	35.1%	\$	3,560,000
\$ 4.00	1,000,000	35.1%	\$	4,000,000
\$ 5.00	1,000,000	35.1%	\$	5,000,000

- (1) Although the Purchase Agreement provides that we may sell up to \$10.0 million of our Common Stock to Lincoln Park, we are only registering 1,052,798 shares of our Common Stock for resale under this prospectus, including 52,798 shares issued to Lincoln Park in the Private Placement, which may or may not cover all the shares of our Common Stock we ultimately sell to Lincoln Park under the Purchase Agreement, depending on the purchase price per share.
- (2) The denominator is based on 1,849,270 shares of our Common Stock outstanding as of February 3, 2023 (including the 52,798 shares we issued to Lincoln Park in the Private Placement), adjusted to include the number of shares of our Common Stock set forth in the adjacent column which we would have sold to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement, assuming the purchase price in the adjacent column. The numerator is based on the number of shares of our Common Stock issuable under the Purchase Agreement at the corresponding assumed purchase price set forth in the adjacent column, without giving effect to the Exchange Cap, or the Beneficial Ownership Cap, and excludes the shares issued to Lincoln Park in the Private Placement.
- (3) The closing sale price per share of our Common Stock on February 2, 2023.

SELLING STOCKHOLDER

This prospectus relates to the possible resale by the selling stockholder, Lincoln Park, of up to 1,052,798 shares of our Common Stock, consisting of: (i) 52,798 shares of Common Stock that we have issued and sold to Lincoln in the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023, and (ii) up to 1,000,000 shares of Common Stock that we have reserved for issuance and sale to Lincoln Park in the Committed Equity Financing under the Purchase Agreement from time to time from and after the Commencement Date, if and when we determine to sell shares of our Common Stock to Lincoln Park in the Committed Equity Financing under the Purchase Agreement.

We are filing the registration statement of which this prospectus is a part pursuant to the provisions of the CEF Registration Rights Agreement, which we entered into with Lincoln Park on February 3, 2023 concurrently with our execution of the Purchase Agreement, in which we agreed to provide certain registration rights with respect to sales by Lincoln Park of the shares of our Common Stock that may be issued to Lincoln Park in the Committed Equity Financing under the Purchase Agreement. Pursuant to the Private Placement Registration Rights Agreement, we are also registering the shares of Common Stock that we have issued and sold to Lincoln in the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023; however, the Private Placement Registration Rights Agreement does not afford any registration rights with respect to the warrants that were issued and sold by us to Lincoln Park in the Private Placement, or with respect to the 105,596 shares of Common Stock underlying such warrants. Therefore, none of the warrants or the 105,596 shares of Common Stock underlying such warrants that were issued and sold by us to Lincoln Park in the Private Placement on February 3, 2023 are being registered for resale in the registration statement that includes this prospectus, or any other registration statement of ours that has been filed with the SEC as of the date of this prospectus.

The selling stockholder may sell some, all or none of the shares of Common Stock. We do not know how long the selling stockholder will hold the shares of our Common Stock before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholder regarding the sale of any of the shares of Common Stock. See "Plan of Distribution."

The table below sets forth, to our knowledge, information concerning the beneficial ownership of shares of our Common Stock by the selling stockholder as of February 3, 2023. The percentages of shares owned before and after the offering are based on 1,849,270 shares of Common Stock outstanding as of February 3, 2023, which includes the 52,798 shares that we issued to Lincoln Park in the Private Placement. The information in the table below with respect to the selling stockholder has been obtained from the selling stockholder.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to shares. Unless otherwise indicated below, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares of Common Stock. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for the person named below.

Name of Selling Stockholder	Number of Shares of Common Stock Owned Prior to Offering(2)		Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus(3)	Number of Shares of Common Stock Owned After Offering	
	Number	Percent		Number (4)	Percent

Lincoln Park Capital Fund, LLC ⁽¹⁾	186,000	9.99%	1,052,798	284,642	9.99%
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* Represents less than 1.0%.

(1) Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, the manager of Lincoln Park Capital Fund, LLC, are deemed to be beneficial owners of all of the shares of Common Stock owned directly by Lincoln Park Capital Fund, LLC. Messrs. Cope and Scheinfeld have shared voting and investment power over the shares of Common Stock being offered under the registration statement filed with the SEC in connection with the transactions contemplated under the Purchase Agreement and the Registration Rights Agreement. Neither Lincoln Park Capital, LLC nor Lincoln Park Capital Fund, LLC is a licensed broker dealer or an affiliate of a licensed broker dealer.

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(2) Includes (i) the 52,798 shares of Common Stock issued to Lincoln Park in the Private Placement on February 3, 2023, (ii) 120,375 shares of Common Stock acquired by Lincoln Park from the Company in connection with the Company's public offering of its Common Stock, Series E Preferred Stock and Class A and Class B warrants to purchase common stock (each of which Class A and Class B warrants contain a 9.99% beneficial ownership limitation provision) on July 26, 2022 (the "July 2022 Public Offering"), and (iii) up to 12,827 shares of Common Stock issuable upon exercise of currently exercisable Class A and Class B warrants to purchase Common Stock acquired by Lincoln Park in the July 2022 Public Offering, subject to a 9.99% beneficial ownership limitation provision contained in each of such warrants. Excludes (i) up to 230,923 shares of Common Stock underlying Class A and Class B warrants to purchase Common Stock acquired by Lincoln Park in the July 2022 Public Offering pursuant to a 9.99% beneficial ownership limitation provision contained in each of such warrants, and (ii) up to 105,596 shares of Common Stock underlying the warrants purchased by Lincoln Park in the Private Placement on February 3, 2023, which warrants and 105,596 shares of Common Stock issuable upon exercise thereof are not being registered in the registration statement that includes this prospectus, because such warrants are not exercisable until August 3, 2023 and therefore, are not deemed to be "beneficially owned" by Lincoln Park as of the date of this prospectus under Rule 13d-3 of the Exchange Act. Furthermore, in accordance with Rule 13d-3(d) under the Exchange Act, we have excluded from the number of shares of our Common Stock beneficially owned prior to the offering all of the 1,000,000 shares of our Common Stock that we may issue and sell to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement, from time to time at our discretion, from and after the Commencement Date that are being registered for resale under the registration statement that includes this prospectus, because the issuance and sale of such shares to Lincoln Park under the Purchase Agreement is solely at our discretion and is subject to certain conditions, the satisfaction of all of which are outside of Lincoln Park's control, including the registration statement that includes this prospectus becoming and remaining effective under the Securities Act. Furthermore, under the terms of the Purchase Agreement, issuances and sales of shares of our Common Stock to Lincoln Park under the Purchase Agreement are subject to certain limitations on the amounts we may sell to Lincoln Park at any time, including the Exchange Cap and the Beneficial Ownership Cap.

(3) Although the Purchase Agreement provides that we may sell up to \$10.0 million of our Common Stock to Lincoln Park, we are only registering 1,052,798 shares of our common stock for resale under this prospectus, including the 52,798 shares issued to Lincoln Park in the Private Placement. Therefore, only 1,000,000 of such shares represent shares that we may issue and sell to Lincoln Park in the future in the Committed Equity Financing under the Purchase Agreement from time to time, at our sole discretion, during the 36-month period commencing on the Commencement Date. Depending on the price per share at which we sell our Common Stock to Lincoln Park in the Committed Equity Financing pursuant to the Purchase Agreement, we may need to sell to Lincoln Park under the Purchase Agreement more than the 1,000,000 shares of our Common Stock relating to the Committed Equity Financing that are being registered for resale by Lincoln Park hereunder in order to receive aggregate gross proceeds equal to the full \$10.0 million available to us under the Purchase Agreement. If we elect to issue and sell to Lincoln Park more than the 1,000,000 shares of our Common Stock relating to the Committed Equity Financing that are being registered for resale by Lincoln Park hereunder, we must first register for resale under the Securities Act any such additional shares of our Common Stock. The number of shares relating to the Committed Equity Financing ultimately offered for resale by Lincoln Park through this prospectus is dependent upon the number of shares of Common Stock we sell to Lincoln Park in the Committed Equity Financing under the Purchase Agreement.

(4) Includes (i) 120,375 shares of Common Stock acquired by Lincoln Park from the Company in connection with the July 2022 Public Offering, and (ii) up to 164,267 shares of Common Stock issuable upon exercise of currently exercisable Class A and Class B warrants to purchase Common Stock acquired by Lincoln Park in the July 2022 Public Offering, subject to a 9.99% beneficial ownership limitation provision contained in each of such warrants. Excludes (i) up to 79,483 shares of Common Stock underlying Class A and Class B warrants to purchase Common Stock acquired by Lincoln Park in the July 2022 Public Offering pursuant to a 9.99% beneficial ownership limitation provision contained in each of such warrants, and (ii) up to 105,596 shares of Common Stock underlying the warrants purchased by Lincoln Park in the Private Placement on February 3, 2023, which warrants and 105,596 shares of Common Stock issuable upon exercise thereof are not being registered in the registration statement that includes this prospectus, because such warrants are not exercisable until August 3, 2023 and therefore, are not deemed to be "beneficially owned" by Lincoln Park as of the date of this prospectus under Rule 13d-3 of the Exchange Act.

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PLAN OF DISTRIBUTION

General

The shares of our Common Stock offered for resale by this prospectus are being offered for resale by the selling stockholder, Lincoln Park Capital Fund, LLC. The shares may be sold or distributed from time to time by the selling stockholder directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of our Common Stock offered by this prospectus could be effected in one or more of the following methods:

- ordinary brokers' transactions;
- transactions involving cross or block trades;
- through brokers, dealers, or underwriters who may act solely as agents;
- "at the market" into an existing market for the shares of our Common Stock;
- in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;
- in privately negotiated transactions; or
- any combination of the foregoing.

In order to comply with the securities laws of certain states, if applicable, the shares of our Common Stock offered for resale by this prospectus may be sold only through registered or licensed brokers or dealers. In addition, in certain states, the shares of our Common Stock offered by this prospectus may not be sold unless they have been

registered or qualified for sale in the state or an exemption from the state's registration or qualification requirement is available and complied with.

Brokers, dealers, underwriters or agents participating in the distribution of the shares of our Common Stock being offered for resale by Lincoln Park by this prospectus may receive compensation in the form of commissions, discounts, or concessions from the purchasers, for whom the broker-dealers may act as agent, of shares of our Common Stock sold by Lincoln Park through this prospectus. The compensation paid to any such particular broker-dealer by any such purchasers of shares of our Common Stock sold by Lincoln Park may be less than or in excess of customary commissions. Neither we nor Lincoln Park can presently estimate the amount of compensation that any agent will receive from any purchasers of shares of our common stock sold by Lincoln Park.

We know of no existing arrangements between Lincoln Park or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares of our Common Stock offered for resale by this prospectus.

We may from time to time file with the SEC one or more supplements to this prospectus or amendments to the registration statement that includes this prospectus to amend, supplement or update information contained in this prospectus, including, if and when required under the Securities Act, to disclose certain information relating to a particular sale of shares of our Common Stock offered for resale by this prospectus by the selling stockholder, including the names of any brokers, dealers, underwriters or agents participating in the distribution of such shares of our Common Stock by the selling stockholder, any compensation paid by the selling stockholder to any such brokers, dealers, underwriters or agents, and any other required information.

We will pay the expenses incident to the registration under the Securities Act of the offer and resale of the shares of our Common Stock included in this prospectus by Lincoln Park. We have agreed to indemnify Lincoln Park and certain other persons against certain liabilities in connection with the offering of shares of our Common Stock offered for resale by this prospectus, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. Lincoln Park has agreed to indemnify us against liabilities under the Securities Act that may arise from certain written information furnished to us by Lincoln Park specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

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Lincoln Park has represented to us that at no time prior to the date of the Securities Purchase Agreement or prior to the date of the Purchase Agreement has Lincoln Park or its agents, representatives or affiliates engaged in or effected, in any manner whatsoever, directly or indirectly, any short sale (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of our Common Stock or any hedging transaction, which establishes a net short position with respect to our Common Stock. Lincoln Park agreed that during the term of the Purchase Agreement, it, its agents, representatives or affiliates will not enter into or effect, directly or indirectly, any of the foregoing transactions.

We have advised Lincoln Park that it is required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes the selling stockholder, any affiliated purchasers, and any broker-dealer or other person who participates in the distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete. Regulation M also prohibits any bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of the securities offered by this prospectus.

This offering will terminate on the date that all shares of our Common Stock offered for resale by this prospectus have been resold by Lincoln Park.

Our Common Stock is currently listed on The Nasdaq Capital Market under the symbol "KPRX".

The Private Placement

The selling stockholder may offer and sell, from time to time, the 52,798 shares of Common Stock that we have issued and sold to Lincoln the Private Placement pursuant to the Securities Purchase Agreement on February 3, 2023 that are covered by this prospectus (the "Private Placement Shares"). The following disclosure relates to the offer and sale of the Private Placement Shares by the selling stockholder.

With respect to the offer and resale of the Private Placement Shares through this prospectus, the selling stockholder and any underwriters, dealers or agents participating in a distribution of the Private Placement Shares may be deemed to be "underwriters" within the meaning of the Securities Act, and any profit on the sale of the Private Placement Shares by the selling stockholder and any commissions received by broker-dealers may be deemed to be underwriting commissions under the Securities Act.

The selling stockholder may agree to indemnify an underwriter, broker-dealer or agent against certain liabilities related to the sale of the securities, including liabilities under the Securities Act.

Instead of selling the Private Placement Shares under this prospectus, the selling stockholder may sell the Private Placement Shares in compliance with the provisions of Rule 144 under the Securities Act, if available, or pursuant to other available exemptions from the registration requirements of the Securities Act.

The Committed Equity Financing

Lincoln Park may offer and sell up to 1,000,000 shares of Common Stock that are covered by this prospectus (the "CEF Shares"), which we have reserved for issuance and sale to Lincoln Park in the Committed Equity Financing under the Purchase Agreement, from time to time from and after the Commencement Date, if and when we determine to sell shares of our Common Stock to Lincoln Park in the Committed Equity Financing under the Purchase Agreement.

Lincoln Park is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act with respect to the offer and resale by Lincoln Park of up to 1,000,000 CEF Shares through this prospectus.

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Lincoln Park has informed us that it intends to use an unaffiliated broker-dealer to effectuate all resales, if any, of the CEF Shares that it may in the future acquire from us in the Committed Equity Financing pursuant to the Purchase Agreement. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act with respect to the offer and resale by Lincoln Park of up to 1,000,000 CEF Shares through this prospectus. Lincoln Park has informed us that, with respect to the offer and resale by Lincoln Park of up to 1,000,000 CEF Shares through this prospectus, each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions.

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DESCRIPTION OF OUR 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, and 1,280 are designated as Series E Convertible Preferred Stock. The following description summarizes some of the terms of our restated certificate of incorporation and second 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 second 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 1,849,270 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 Preferred Stock, and 7 shares of our Series D Convertible Preferred Stock (convertible into an aggregate of 52 shares of common stock) outstanding as of February 3, 2023, assuming no exercise of outstanding options or warrants. There were approximately 53 holders of record of our common stock as of February 3, 2023. This number does not include beneficial owners whose shares are held in street name.

As of February 3, 2023, there were 119,326 shares of common stock subject to outstanding options and restricted stock awards and 1,703,202 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 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.

The provisions of Delaware law, our restated certificate of incorporation and our 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 listed on The Nasdaq Capital Market under the symbol “KPRX.”

LEGAL MATTERS

Certain legal matters with respect to the validity of the securities offered by this prospectus 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, 2021 and 2020, 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, which is incorporated herein by reference, which report includes an emphasis of matter paragraph regarding the correction of a misstatement and 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-1 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

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).

We post on our public website (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 INFORMATION 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, 2021 filed with the SEC on April 15, 2022\(as amended by Amendment No. 1 filed with the SEC on July 7, 2022\);](#)
- [Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 filed with the SEC on July 8, 2022;](#)
- [Our Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 filed with the SEC on August 12, 2022;](#)
- [Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2022 filed with the SEC on November 9, 2022;](#)
- Our Current Reports on Form 8-K filed with the SEC on [January 11, 2022](#), [February 1, 2022](#), [February 14, 2022](#), [February 28, 2022](#), [March 23, 2022](#), [April 26, 2022](#), [May 23, 2022](#), [May 31, 2022](#), [June 21, 2022](#), [July 26, 2022](#), [August 4, 2022](#), [August 25, 2022](#), [September 16, 2022](#), [September 23, 2022](#), [September 26, 2022](#), [October 13, 2022](#), [November 21, 2022](#), [January 3, 2023](#), and [February 3, 2023](#) (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](#); and
- All future documents filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, including all filings made after the date of the filing of this registration statement and prior to the effectiveness of this registration statement, prior to the termination of the offering of the underlying securities; provided, however, that we are not incorporating by reference any additional documents or information furnished and not filed with the SEC.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus is modified or superseded for purposes of the prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus is delivered a copy of the documents incorporated by reference into this prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following address:

Kiora Pharmaceuticals, Inc.
332 Encinitas Boulevard, Suite 102
Encinitas, California 92024
Telephone: (781) 788-8869

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This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

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1,052,798 Shares of Common Stock

PROSPECTUS

, 2023

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

We are paying all expenses of the offering. No portion of these expenses will be borne by the selling stockholder. The selling stockholder, however, will pay any other expenses incurred in selling their 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	\$	413
Legal Fees and Expenses		50,000
Accounting Fees and Expenses		25,000
Miscellaneous Fees and Expenses		30,000
Total	\$	<u>105,413</u>

Item 14. 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.

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Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding the shares of common stock and preferred stock and the warrants issued, and options granted, by us in the three years preceding the filing of this registration statement that were not registered under the Securities Act.

- (1) On September 29, 2019, we entered into a Securities Purchase Agreement with Armistice Capital Master Fund, Ltd. (the "Investor"), pursuant to which we issued to the Investor in a private placement 15,000 shares of common stock and warrants to purchase 15,000 shares of common stock for an aggregate purchase price of \$1.875 million. The private placement closed on October 2, 2019. The warrants have an exercise price of \$125 per share, subject to adjustments as provided under the terms of the warrants, and became exercisable on the six month anniversary of their issuance date. The warrants are exercisable for five years from the issuance date.
- (2) On December 31, 2019, we entered into a Securities Purchase Agreement with certain institutional investors providing for the issuance of 12,500 shares of common stock with total gross proceeds of \$5.0 million. The closing of the offering occurred on January 3, 2020. H.C. Wainwright & Co., LLC acted as the placement agent in connection with the offering. We agreed to pay the placement agent an aggregate fee equal to 7% of the aggregate gross proceeds received by from the sale of the securities in the transaction plus a management fee equal to 1% of the aggregate gross proceeds received from the sale of the securities in the transaction. In addition, we also agreed to issue to the placement agent or its designees warrants to purchase up to 625 shares of common stock. The warrants have an exercise price of \$500 per share of common stock, and will be exercisable for five years from the effective date of the offering.
- (3) On December 18, 2020, we entered into a Share Purchase Agreement with the shareholders of Panoptes Pharma Ges.m.b.H ("Panoptes"). Pursuant to the agreement, we acquired all of the outstanding equity interests of Panoptes, and Panoptes became a wholly-owned subsidiary of the Company. The consideration paid by us to the former shareholders of Panoptes at closing in connection with the acquisition, after adjustment as provided in the Share Purchase Agreement and including consideration paid to the sellers' financial advisor, was comprised of (i) 22,106 shares of the common stock, (ii) 45,8923 shares of Series D Convertible Preferred convertible into an aggregate of 325 shares of common stock, and (iii) cash payments in an aggregate amount of approximately \$220,577. Additionally, 1,500 shares of Series D Preferred Stock convertible into an aggregate of approximately 10,617 shares of common stock may be issued after a period of 18 months subject to adjustments for potential post-closing working capital and/or indemnification claims relating to breaches of representations, warranties and covenants contained in the Share Purchase Agreement. The Series D Convertible Preferred Stock has a stated value of \$1,000 per share and a conversion price of \$141.284 per share. The Series D Convertible Preferred Stock is only entitled to dividends in the event dividends are paid on shares of common stock and will not have any preferences over shares of common stock or any voting rights, except in limited circumstances.
- (4) On January 5, 2021, we entered into a Securities Purchase Agreement with the Investor, pursuant to which we agreed to issue to the Investor in a private placement 1,531,101 shares of its common stock and warrants to purchase 38,278 shares of common stock for an aggregate purchase price of approximately \$8.0 million. The private placement closed on January 6, 2021. The warrants have an exercise price of \$209 per share and became exercisable on the six month anniversary of their issuance date. The warrants are exercisable for five years from the issuance date.
- (5) On August 9, 2021, we entered into a Securities Purchase Agreement with several institutional and accredited investors for the sale of 116,721 shares common stock in a registered direct offering. Concurrently with the sale of the shares, we also sold to the investors unregistered warrants to purchase up to an aggregate of 58,361 shares of common stock. The gross proceeds to us from the offerings were approximately \$10.75 million, before deducting the placement agent's fees and other offering expenses, and excluding the proceeds, if any, from the exercise of the warrants. Subject to certain ownership limitations, the warrants were immediately exercisable upon issuance at an exercise price equal to \$89.60 per share of common stock, subject to adjustments as provided under the terms of the warrants. The warrants are exercisable for five and one-half years from the initial exercise date. The closing occurred on August 11, 2021. We agreed to pay H.C. Wainwright & Co., LLC, the placement agent for the offerings, an aggregate cash fee equal to 7% of the aggregate gross proceeds received from the offerings plus a management fee equal to 1% of the aggregate gross proceeds received from the sale of the securities in the offerings. In addition, we also agreed to issue to the placement agent or its designees warrants to purchase up to 5,836 shares of common stock. The warrants have an exercise price of \$115.124 per share of common stock, and will be exercisable for five years from the commencement of the sales pursuant to the offering.

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- (6) On October 21, 2021, we entered into a Stock Purchase Agreement with the former stockholders of Bayon Therapeutics, Inc. (“Bayon”). Pursuant to the agreement, we acquired all of the outstanding equity interests of Bayon, and Bayon became our wholly-owned subsidiary of the Company. The consideration paid by us to the former Bayon stockholders at closing in connection with the acquisition, after adjustment as provided in the agreement, was comprised of 845 shares of common stock. In addition to the consideration set forth above, the former Bayon stockholders are eligible to receive up to \$7.1 million in additional payments based on clinical trial and FDA approval milestones for Bayon’s product candidates, as set forth in the agreement. In each case, we may elect to pay the applicable milestone payment either (i) in cash, or (ii) by issuing shares of common stock, provided that we may not issue shares of common stock under the agreement that, in the aggregate, exceed 5% of the number of shares of common stock outstanding immediately prior to the consummation of the acquisition unless approval of the Company’s stockholders is obtained.
- (7) On November 17, 2022, we entered into Inducement Letters with certain investors from our August 2022 public offering pursuant to which such investors agreed to exercise for cash all of their Class A Warrants to purchase 654,609 shares of our Common Stock originally issued in the Public Offering in exchange for our agreement to issue new Inducement Warrants on substantially the same terms as the Class A Warrants, except as described below, to purchase up to 654,609 shares of Common Stock, in the Private Placement. Each Inducement Warrant is exercisable at a price per share of common stock of \$5.97. Each Inducement Warrant will initially be exercisable six months following its date of issuance, and will expire on the 18 month anniversary of their initial exercise date.
- (8) On February 2, 2023, we entered into a securities purchase agreement with Lincoln Park whereby we issued 52,798 shares of Common Stock and warrants to purchase 105,596 shares of Common Stock to Lincoln Park in the Private Placement. The combined purchase price in the Private Placement was \$3.788 per share and two warrants. Each warrant is exercisable at a price per share of common stock of \$3.538, will initially be exercisable six months following its date of issuance, and will expire on the five year anniversary of its initial exercise date.
- (9) On February 3, 2023, we entered into the Purchase Agreement with Lincoln Park, pursuant to which we have the right to sell to Lincoln Park up to \$10.0 million in shares of Common Stock, subject to certain limitations, from time to time over the 36 month period commencing on the date that a registration statement covering the resale of the shares is declared effective by the SEC.

The offers, sales and issuances of the securities described in this Item 15 were deemed to be exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act and Rule 506 promulgated under Regulation D promulgated thereunder as transactions by an issuer not involving a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the securities issued in these transactions.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

See the Exhibit Index immediately before the Signature Pages.

(b) Financial Statement Schedules.

All schedules have been omitted because they are either inapplicable or the required information has been given in the financial statements or notes thereto.

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) If the registrant is relying on Rule 430B:
 - (i) 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

- (ii) 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.

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- (b) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be a part of and included in the registration statement as of the date it is first used after effectiveness. *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 first use, 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 date of first use.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the registrant undertakes that in a primary offering of securities of the registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (a) Any preliminary prospectus or prospectus of the registrant relating to the offering required to be filed pursuant to Rule 424;
- (b) Any free writing prospectus relating to the offering prepared by or on behalf of the registrant or used or referred to by the registrant;
- (c) The portion of any other free writing prospectus relating to the offering containing material information about registrant or its securities provided by or on behalf of the registrant; and
- (d) Any other communication that is an offer in the offering made by an registrant to the purchaser.
- (6) 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.
- (7) 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.

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EXHIBIT INDEX

Exhibit Number	Description of Exhibit
2.1**	Stock Purchase Agreement, dated as of March 7, 2016, by and among the Registrant and the Sellers named therein (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on March 7, 2016 and incorporated by reference thereto).
2.2**	Share Purchase Agreement, dated as of December 18, 2020, by and among the Registrant and the Sellers named therein (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on December 21, 2020 and incorporated by reference thereto).
2.3**	Stock Purchase Agreement, dated as of October 21, 2021, by and among the Registrant and the Sellers named therein (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on October 26, 2021 and incorporated by reference thereto).
3.1	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).
3.2	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).
3.3	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).
3.4	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).
3.5	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).
3.6	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).
3.7	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).
3.8	Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on June 27, 2016 and incorporated by reference thereto).
3.9	Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock (previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on June 14, 2017 and incorporated by reference thereto).

- 3.10 [Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible Preferred Stock \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on April 17, 2018 and incorporated by reference thereto\).](#)
- 3.11 [Certificate of Designation of Preferences, Rights and Limitations of Series D Convertible Preferred Stock \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on December 21, 2020 and incorporated by reference thereto\).](#)
- 3.12 [Form of Certificate of Designation of Preferences, Rights and Limitations of Series E Convertible Preferred Stock \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on July 26, 2022 and incorporated by reference thereto\).](#)
- 4.1 [Specimen Stock Certificate evidencing the shares of common stock \(previously filed as an exhibit to the Registrant's Registration Statement on Form S-1 filed on July 30, 2014 and incorporated by reference thereto\).](#)

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- 4.2 [Form of Common Stock Purchase Warrant, dated June 14, 2017 \(previously filed as an exhibit to the Registrant's Registration Statement on Form S-1 filed on June 5, 2017 and incorporated by reference thereto\).](#)
- 4.3 [Form of Common Stock Purchase Warrant, dated April 17, 2018 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on April 13, 2018 and incorporated by reference thereto\).](#)
- 4.4 [Form of Common Stock Purchase Warrant, dated October 2, 2019 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on September 30, 2019 and incorporated by reference thereto\).](#)
- 4.5 [Form of Common Stock Purchase Warrant, dated January 3, 2020 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on December 31, 2019 and incorporated by reference thereto\).](#)
- 4.6 [Form of Common Stock Purchase Warrant, dated January 6, 2021 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on January 6, 2021 and incorporated by reference thereto\).](#)
- 4.7 [Form of Common Stock Purchase Warrant, dated August 11, 2021 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on August 10, 2021 and incorporated by reference thereto\).](#)
- 4.8 [Form of Placement Agent Warrant, dated August 11, 2021 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on August 10, 2021 and incorporated by reference thereto\).](#)
- 4.9 [Form of Class A Warrant \(previously filed as an exhibit to Amendment No.3 to the Registrant's Registration Statement on Form S-1/A filed on July 21, 2022 and incorporated by reference thereto\).](#)
- 4.10 [Form of Class B Warrant \(previously filed as an exhibit to Amendment No. 3 to the Registrant's Registration Statement on Form S-1/A filed on July 21, 2022 and incorporated by reference thereto\).](#)
- 4.11 [Form of Warrant Agency Agreement by and between the Registrant and VStock Transfer, LLC \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on July 26, 2022 and incorporated by reference thereto\).](#)
- 4.12 [Form of Common Stock Purchase Warrant, dated November 22, 2022 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on November 21, 2022 and incorporated by reference thereto\).](#)
- 4.13 [Form of Common Stock Purchase Warrant, dated February 3, 2023 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 3, 2023 and incorporated by reference thereto\).](#)
- 5.1* [Opinion of Burns & Levinson LLP.](#)
- 10.1# [2005 Equity Incentive Plan, as amended \(previously filed as an exhibit to the Registrant's Registration Statement on Form S-1 filed on July 30, 2014 and incorporated by reference thereto\).](#)
- 10.2# [2014 Equity Incentive Plan, as amended \(previously filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q filed on August 12, 2021 and incorporated by reference thereto\).](#)
- 10.3# [Employee Stock Purchase Plan \(previously filed as an exhibit to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 filed on September 12, 2014 and incorporated by reference thereto\).](#)
- 10.4 [Form of Indemnification Agreement \(previously filed as an exhibit to the Registrant's Registration Statement on Form S-1 filed on July 30, 2014 and incorporated by reference thereto\).](#)
- 10.5# [Form of Notice of Stock Option Grant pertaining to the 2014 Equity Incentive Plan \(previously filed as an exhibit to the Registrant's Registration Statement on Form S-1 filed on July 30, 2014 and incorporated by reference thereto\).](#)

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- 10.6# [Form of Notice of Stock Unit Award pertaining to the 2014 Equity Incentive Plan \(previously filed as an exhibit to the Registrant's Registration Statement on Form S-1 filed on July 30, 2014 and incorporated by reference thereto\).](#)
- 10.7† [Intellectual Property License Agreement, dated as of September 26, 2018, by and between the Registrant and SentrX Animal Care, Inc. \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on October 2, 2018 and incorporated by reference thereto\).](#)
- 10.8 [Kiora Pharmaceuticals, Inc. Amended and Restated Change in Control Severance Plan \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on December 3, 2019 and incorporated by reference thereto\).](#)
- 10.9†† [Exclusive Sub-License Agreement, dated as of September 12, 2013, by and between Jade Therapeutics, Inc. and Biotime, Inc. \(previously filed as an exhibit to the Registrant's Annual Report on Form 10-K filed on March 4, 2020 and incorporated by reference thereto\).](#)
- 10.10†† [Amendment No. 1 to Sub-License Agreement, dated as of September 18, 2015, by and between Jade Therapeutics, Inc. and Biotime, Inc. \(previously filed as an exhibit to the Registrant's Annual Report on Form 10-K filed on March 4, 2020 and incorporated by reference thereto\).](#)
- 10.11†† [Amendment No. 2 to Sub-License Agreement, dated as of February 17, 2016, by and between Jade Therapeutics, Inc. and Biotime, Inc. \(previously filed as an exhibit to the Registrant's Annual Report on Form 10-K filed on March 4, 2020 and incorporated by reference thereto\).](#)
- 10.12 [Registration Rights Agreement, dated as of December 18, 2020, by and among the Registrant and the Sellers listed therein \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on December 21, 2020 and incorporated by reference thereto\).](#)
- 10.13 [Registration Rights Agreement, dated as of January 5, 2021, by and among the Registrant and the Purchasers listed therein \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on January 6, 2021 and incorporated by reference herein\).](#)
- 10.14# [Separation Agreement, dated as of January 31, 2022, by and between the Registrant and Stephen From. \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 1, 2022 and incorporated by reference thereto\).](#)
- 10.15†† [Patent and Know How Assignment Agreement, dated as of July 2, 2013, by and between Panoptes Pharma Ges.m.b.H and 4SC Discovery GmbH \(previously filed as an exhibit to the Registrant's Annual Report on Form 10-K filed on March 25, 2021 and incorporated by reference thereto\).](#)
- 10.16†† [Patent License Agreement, dated as of July 2, 2013, by and between Panoptes Pharma Ges.m.b.H. and 4SC Discovery GmbH \(previously filed as an exhibit to the Registrant's Annual Report on Form 10-K filed on March 25, 2021 and incorporated by reference thereto\).](#)
- 10.17# [Employment Agreement, dated as of July 22, 2021, by and between the Registrant and Brian M. Strem \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on July 26, 2021 and incorporated by reference thereto\).](#)
- 10.18# [Employment Agreement, dated as of October 21, 2021, by and between the Registrant and Eric J. Daniels \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on October 26, 2021 and incorporated by reference thereto\).](#)

- 10.19# [Consulting Agreement, dated as of March 9, 2022, by and between the Registrant and Danforth Consulting, LLC \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on April 26, 2022 and incorporated by reference thereto\).](#)
- 10.20# [Offer Letter, dated as of August 17, 2022, by and between the Registrant and Melissa Tosca \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on September 16, 2022 and incorporated by reference thereto\).](#)
- 10.21 [Form of Inducement Letter, dated as of November 22, 2022 \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on November 21, 2022 and incorporated by reference thereto\).](#)

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- 10.22** [Purchase Agreement dated February 3, 2023 by and between the Registrant and Lincoln Park Capital, LLC \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 3, 2023 and incorporated herein by reference thereto\).](#)
- 10.23 [Securities Purchase Agreement dated February 2, 2023 by and between the Registrant and Lincoln Park Capital, LLC \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 3, 2023 and incorporated herein by reference thereto\).](#)
- 10.24 [Registration Rights Agreement dated February 2, 2023 by and between the Registrant and Lincoln Park Capital, LLC \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 2, 2023 and incorporated herein by reference thereto\).](#)
- 10.25** [Registration Rights Agreement dated February 3, 2023 by and between the Registrant and Lincoln Park Capital, LLC \(previously filed as an exhibit to the Registrant's Current Report on Form 8-K filed on February 3, 2023 and incorporated herein by reference thereto\).](#)
- 21.1 [Subsidiaries of the Registrant \(previously filed as an exhibit to the Registrant's Annual Report on Form 10-K filed on April 15, 2022 and incorporated by reference thereto\).](#)
- 23.1* [Consent of EisnerAmper LLP.](#)
- 23.2* [Consent of Burns & Levinson LLP \(included in Exhibit 5.1\).](#)
- 24.1* [Power of Attorney \(see signature page hereto\).](#)
- 107* [Calculation of Registration Fee](#)

* Filed herewith.

** Schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The registrant hereby undertakes to furnish copies of any of the omitted schedules and exhibits upon request by the U.S. Securities and Exchange Commission.

† Confidential treatment requested as to portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.

†† Certain confidential portions of this exhibit were omitted because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed.

Management contract or compensatory plan or arrangement.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant 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 this 3rd day of February, 2023.

KIORA PHARMACEUTICALS, INC.

By: /s/ Brian M. Strem, Ph.D.

Brian M. Strem, Ph.D.

President and Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Brian M. Strem, Ph.D. and Melissa Tosca, and each of them singly (with full power to each of them to act alone), 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.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<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 (principal executive officer)	February 3, 2023
<u>/s/ Melissa Tosca</u> Melissa Tosca	Executive Vice President of Finance (principal financial and accounting officer)	February 3, 2023
<u>/s/ Paul Chaney</u> Paul Chaney	Chairman	February 3, 2023
<u>/s/ Kenneth Gayron</u> Kenneth Gayron	Director	February 3, 2023
<u>/s/ Praveen Tyle</u> Praveen Tyle	Director	February 3, 2023

/s/ David Hollander Director
David Hollander

February 3, 2023

/s/ Aron Shapiro Director
Aron Shapiro

February 3, 2023

/s/ Erin Parsons Director
Erin Parsons

February 3, 2023

[Letterhead of Burns & Levinson LLP]

February 3, 2023

Kiora Pharmaceuticals, Inc.
 1371 East 2100 South, Suite 200
 Salt Lake City, Utah 84105

Re: Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as counsel for Kiora Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the preparation of the Registration Statement on Form S-1 (the "Registration Statement"), filed with the Securities and Exchange Commission (the "Commission") on February 3, 2023 under the Securities Act of 1933, as amended (the "Securities Act"), covering the offering for resale, on a delayed or continuous basis, of 1,052,798 shares of the Company's common stock, par value \$0.01 per share (the "Common Stock"), of which (i) 52,798 shares (the "Private Placement Shares") have been issued to Lincoln Park Capital Fund, LLC ("Lincoln Park") pursuant to a securities purchase agreement between the Company and Lincoln Park dated as of February 2, 2023 and (ii) 1,000,000 (the "Purchase Shares" and, together with the Private Placement Shares, the "Shares") are reserved for issuance pursuant to a purchase agreement between the Company and Lincoln Park dated as of February 3, 2023 (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 Company's Third Amended and Restated By-Laws, the Purchase Agreement, the Securities 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.

Based upon the foregoing, and subject to the additional qualifications set forth below, we are of the opinion that (i) the Private Placement Shares are duly authorized and validly issued, fully paid and non-assessable and (ii) the Purchase Shares have been duly authorized and, when issued and delivered by the Company in the manner described in the Registration Statement and the related Prospectus, will be validly issued, fully paid and non-assessable.

The opinions expressed above are subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other similar laws of general application affecting the rights and remedies of creditors and to general principles of equity.

We express no opinion herein as to the effect or applicability of the laws of any jurisdiction other than the federal laws of the United States of America and the General Corporation Law of the State of Delaware (including all applicable provisions of the Delaware constitution and reported judicial decisions interpreting the General Corporation Law of the State of Delaware or the Delaware constitution). This opinion is limited to the laws referred to above as in effect on the date hereof. We undertake no obligation to advise you as a result of developments occurring after the date hereof or as a result of facts or circumstances brought to our attention after the date hereof.

Kiora Pharmaceuticals, Inc.
 February 3, 2023
 Page 2

We hereby consent to the filing of this opinion as an exhibit to the above-referenced Registration Statement and to the use of our name under the caption "Legal Matters" in the Registration Statement and the prospectus that forms a part thereof. In giving such consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder or Item 509 of Regulation S-K.

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-1 to be filed on or about February 3, 2023 of our report dated April 15, 2022, except for the effects of the restatement discussed in Note 2 to the financial statements, as to which the date is July 6, 2022, on our audit of the financial statements as of December 31, 2021 and 2020 and for each of the years then ended, which report was included in the Annual Report on Form 10-K/A filed July 7, 2022. Our report includes an emphasis of matter paragraph regarding correction of a misstatement and 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 on Form S-1.

/s/ EisnerAmper LLP

EISNERAMPER LLP
Iselin, New Jersey
February 3, 2023

Calculation of Filing Fee Tables

Form S-1
(Form Type)Kiora Pharmaceuticals, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, \$0.01 par value per share	457(c) 457(h)	1,052,798	\$ 3.56(2)	\$ 3,747,960.88(2)	\$110.20 per million	\$ 413.03
	Total Offering Amounts				\$ 3,747,960.88		—
	Total Fees Previously Paid						—
	Total Fee Offsets						—
	Net Fee Due						\$ 413.03

- (1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall also cover any additional shares of common stock that become issuable pursuant to that certain securities purchase agreement by and between Kiora Pharmaceuticals, Inc. (the “Registrant”) and Lincoln Park Capital Fund, LLC (the “Selling Stockholder”) dated as of February 2, 2023 (the “Securities Purchase Agreement”) and that certain purchase agreement by and between the Registrant and the Selling Stockholder dated as of February 3, 2023 (the “Purchase Agreement”) by reason of any stock dividend, stock split, recapitalization, or other similar transaction effected that results in an increase to the number of outstanding shares of the common stock, as applicable. Includes 52,798 shares of common stock previously issued by the Registrant to the Selling Stockholder pursuant to the Securities Purchase Agreement and 1,000,000 shares of Common Stock that are available to be issued and sold by the Registrant to the Selling Stockholder from time to time at the Registrant’s election pursuant to the Purchase Agreement, subject to satisfaction of the conditions set forth therein.
- (2) Estimated pursuant to Rules 457(c) and 457(h) under the Securities Act, solely for the purposes of calculating the registration fee and based on the average of the high and low prices of the Registrant’s common stock as reported on The Nasdaq Capital Market on February 2, 2023, which date is within five business days prior to the filing of this Registration Statement.