

## 1,500,000 Shares of Common Stock



## Cingulate Inc.

This prospectus relates to the offer and resale of up to 1,500,000 shares of our common stock, par value \$0.0001 per share, by Lincoln Park Capital Fund, LLC, which we refer to in this prospectus as “Lincoln Park” or the “selling stockholder.” We may, from time to time in our discretion, issue and sell to Lincoln Park the shares of common stock to which this prospectus relates, which we refer to as “Purchase Shares,” upon the terms and subject to satisfaction of the conditions in the purchase agreement, dated as of April 24, 2023, that we entered into with Lincoln Park, which we refer to as the “Purchase Agreement.”

See “The Lincoln Park Transaction” for descriptions of the Purchase Agreement and “Selling Stockholder” for additional information regarding Lincoln Park.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the resale by the selling stockholder of shares of common stock under this prospectus. However, we may receive proceeds of up to \$4,713,220.68 from our sale of Purchase Shares, if any, to Lincoln Park under the Purchase Agreement, from time to time in our discretion after the date the registration statement of which this prospectus is a part is declared effective and the other conditions in the Purchase Agreement have been satisfied.

Lincoln Park may sell the shares of our common stock described in this prospectus in a number of different ways and at varying prices. The price that Lincoln Park will pay for the shares to be resold pursuant to this prospectus will depend upon the timing of sales and will fluctuate based on the trading price of our common stock. Lincoln Park is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended (the “Securities Act”).

The purchase price for the Purchase Shares will be based upon formulas set forth in the Purchase Agreement and described in this prospectus depending on the type of purchase notice we submit to Lincoln Park from time to time. We will pay the expenses incurred in registering the shares of our common stock, including legal and accounting fees. See “Plan of Distribution” beginning on page 22 for more information about how Lincoln Park may sell the shares of common stock being registered pursuant to this prospectus.

Our common stock and warrants are listed on the Nasdaq Capital Market LLC (“Nasdaq”) under the symbols “CING” and “CINGW,” respectively. The last reported sale price of our common stock on Nasdaq on October 4, 2024 was \$4.81 per share. The last reported sale price of our warrants on Nasdaq on October 4, 2024 was \$0.0707 per warrant.

We are an “emerging growth company” under applicable Securities and Exchange Commission rules and will be subject to reduced public company reporting requirements.

**On August 9, 2024, we effected a 1-for-12 reverse stock split pursuant to which every 12 shares of our issued and outstanding common stock were reclassified as one share of common stock (the “2024 Reverse Stock Split”). The 2024 Reverse Stock Split had no impact on the par value of our common stock or the authorized number of shares of our common stock. Unless otherwise indicated, all share and per share information in this prospectus is adjusted to reflect the 2024 Reverse Stock Split. However, our annual report on Form 10-K for the year ended December 31, 2023, filed on April 1, 2024, and all other documents incorporated by reference into this prospectus that were filed prior to August 9, 2024, do not give effect to the 2024 Reverse Stock Split.**

**Investing in our securities is highly speculative and involves a high degree of risk. See “Risk Factors” beginning on page 7 of this prospectus and in the documents 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 Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is October 7, 2024.

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## ABOUT THIS PROSPECTUS

This prospectus forms part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, and that includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus and the related exhibits filed with the SEC, together with the additional information described under the headings “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” before making your investment decision.

You should rely only on the information provided in this prospectus or in a prospectus supplement or any free writing prospectuses or amendments thereto. Neither we, nor the selling stockholder, have authorized anyone else to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information in this prospectus is accurate only as of the date hereof. Our business, financial condition, results of operations and prospects may have changed since that date.

Neither we, nor the selling stockholder, are offering to sell or seeking offers to purchase these securities in any jurisdiction where the offer or sale is not permitted. We have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities as to distribution of the prospectus outside of the United States.

## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider before making your investment decision. Before investing in our securities, you should carefully read this entire prospectus and the documents incorporated by reference herein, including the “Risk Factors” section in this prospectus and under similar captions in the documents incorporated by reference into this prospectus. If any of the risks materialize, our business, financial condition, operating results, and prospects could be materially and adversely affected. In that event, the price of our securities could decline, and you could lose part or all of your investment. Unless we state otherwise or the context otherwise requires, the terms “we,” “us,” “our,” “our business,” “the Company” and “Cingulate” refer to and similar references refer: (1) on or following the consummation of the Reorganization Merger (as defined below), including our initial public offering, to Cingulate Inc. and its consolidated subsidiaries, including Cingulate Therapeutics LLC, or CTx, and (2) prior to the consummation of the Reorganization Merger, including our initial public offering, to CTx and its consolidated subsidiaries.*

### Overview

We are a biopharmaceutical company using our proprietary Precision Timed Release™ (“PTRTM”) drug delivery platform technology to build and advance a pipeline of next-generation pharmaceutical products designed to improve the lives of patients suffering from frequently diagnosed conditions characterized by burdensome daily dosing regimens and suboptimal treatment outcomes. With an initial focus on the treatment of Attention Deficit/Hyperactivity Disorder (“ADHD”) and anxiety, we are identifying and evaluating additional therapeutic areas where our PTR technology may be employed to develop future product candidates. Our PTR platform incorporates a proprietary Erosion Barrier Layer (“EBL”) designed to allow for the release of drug substance at specific, pre-defined time intervals, unlocking the potential for once-daily, multi-dose tablets.

We are targeting the ADHD treatment market, with an estimated US market size of over \$23 billion as of November 2023, of which \$18.6 billion is attributable to stimulants. Stimulants are the most commonly prescribed class of medications for ADHD and account for approximately 88% of all ADHD medication prescriptions in the United States. By contrast, non-stimulant medications are typically employed only in the second-line or adjunctive therapy setting and accounting for approximately 12% of all ADHD medication prescriptions. Extended-release, or long-acting, dosage forms of stimulant medications are most frequently deployed as the first-line treatment for ADHD and constitute approximately \$16 billion of the overall ADHD market spend and accounting for 54% of all stimulant prescriptions. Most of these extended-release dosage forms are approved for once-daily dosing in the morning and were designed to eliminate the need for re-dosing during the day. However, with the current ‘once-daily’ extended-release dosage forms, most patients still receive a second or “booster” dose for administration later in the day (typically in the early afternoon) to achieve active-day coverage and suffer from a multitude of unwanted side effects as a result. We believe there is a significant, unmet need within the current treatment paradigm for true once-daily ADHD stimulant medications with a duration that provides entire active-day coverage combined with an improved side effect profile to better serve the numerous unmet needs of patients.

Our two proprietary, first-line stimulant medications: CTx-1301 (dexamethylphenidate) and CTx-1302 (dextroamphetamine), are being developed for the treatment of ADHD across all three patient segments: children (ages 6 -12), adolescents (ages 13-17), and adults (ages 18+). Both CTx-1301 and CTx-1302 are designed to address the key shortcomings of currently approved stimulant therapies by: providing an immediate onset of action (within 30 minutes); offering entire ‘active-day’ duration; eliminating the need for ‘booster/recovery’ doses of additional stimulant medications; minimizing or eliminating the rebound/crash symptoms associated with early medication ‘wear-off;’ and providing favorable tolerability with a controlled descent of drug blood levels. Furthermore, by eliminating the ‘booster’ dose used by up to 60% of ADHD patients in conjunction with their primary medication, we believe our product candidates will provide important societal and economic benefits: reducing the abuse and diversion associated with short-acting stimulant medications; allowing physicians to prescribe one medication versus two; allowing patients to pay for one medication versus two; and allowing payers to reimburse one medication versus two.

## The Lincoln Park Transaction

On April 24, 2023, we entered into the Purchase Agreement with Lincoln Park, pursuant to which, subject to the terms and conditions set forth therein, we may sell to Lincoln Park up to an aggregate of \$12.0 million of our common stock from time to time over the term of the Purchase Agreement (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus). Pursuant to the Purchase Agreement we issued 1,535 shares of common stock to Lincoln Park as a fee for making its irrevocable commitment to purchase our common stock under the Purchase Agreement (the “Commitment Shares”).

On April 24, 2023, we entered into a registration rights agreement with Lincoln Park, which we refer to in this prospectus as the Registration Rights Agreement.

On April 26, 2023, May 17, 2024 and August 19, 2024, pursuant to the terms of the Purchase Agreement and the Registration Rights Agreement, we filed registration statement (the “Prior Registration Statements”) on Form S-1 (Registration Nos. 333-271455, 333-279515 and 333-281628) with the SEC to register up to 1,185,417 shares of common stock that have subsequently been issued and sold by us to Lincoln Park, consisting of (i) 1,183,882 shares of common stock that we issued and sold to Lincoln Park as Purchase Shares, during the period from the Commencement Date (as defined below) through the date of this prospectus, for aggregate gross proceeds of \$7,286,779.32, and (ii) 1,535 shares Commitment Shares that we issued to Lincoln Park on April 24, 2023 in consideration for Lincoln Park’s commitment to purchase shares of common stock at our direction under the Purchase Agreement.

The purpose of this registration statement on Form S-1 is to register an additional 1,500,000 Purchase Shares for resale by Lincoln Park, pursuant to the terms of the Purchase Agreement and the Registration Rights Agreement

Under the applicable rules of Nasdaq, on June 15, 2023, we obtained shareholder approval to issue to Lincoln Park, pursuant to the Purchase Agreement, shares of our common stock, including the Commitment Shares, which exceed 9,443 shares, which was equal to 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement.

Sales of common stock by the Company pursuant to the Purchase Agreement, if any, are subject to certain limitations set forth in the Purchase Agreement, and may occur from time to time, at the Company’s sole discretion, over the 36-month period commencing on the date that the conditions to Lincoln Park’s purchase obligation set forth in the Purchase Agreement are satisfied, 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 (the date on which all of such conditions were satisfied, which occurred on May 2, 2023, the “Commencement Date”). From and after the Commencement Date, we may, from time to time and at our sole discretion for a period of 36-months, on any business day that we select, direct Lincoln Park to purchase up to 125 shares of our common stock, which amount may be increased depending on the market price of our common stock at the time of sale, subject to a maximum commitment of \$500,000 per purchase, which we refer to in this prospectus as “Regular Purchases.”

In addition to Regular Purchases, provided that we have directed Lincoln Park to purchase the maximum amount of shares that we are then able to sell to Lincoln Park in a Regular Purchase, 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 that all shares of common stock subject 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 or additional accelerated purchase in accordance with the Purchase Agreement.

We will control the timing and amount of any sales of our common stock to Lincoln Park. The purchase price of the shares of our common stock that may be sold to Lincoln Park in Regular Purchases, accelerated purchases, and additional accelerated purchases under the Purchase Agreement will be based on the market price of our common stock immediately preceding the time of sale as computed under the Purchase Agreement. The purchase price per share will be equitably adjusted as provided in the Purchase Agreement for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction as set forth in the Purchase Agreement. We may at any time in our sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business day notice. 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.

There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement or Registration Rights Agreement, except the Company is prohibited (with certain specified exceptions set forth in the Purchase Agreement) from effecting or entering into an agreement to effect an “equity line of credit” or other continuous offering or similar offering in which the Company may issue and sell common stock, from time to time over a certain period of time, at future determined prices based on the market prices of the common stock at the time of each such issuance and sale. Lincoln Park has represented to us that at no time prior to the time of execution 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 under 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.

As of the date of this prospectus we have (i) issued and sold to Lincoln Park 1,183,882 shares of common stock as Purchase Shares, for aggregate gross proceeds of \$7,286,779.32, and (ii) issued to Lincoln Park 1,535 Commitment Shares on April 24, 2023 in consideration for Lincoln Park’s commitment to purchase shares of common stock at our direction under the Purchase Agreement. The purpose of this registration statement on Form S-1 is to register an additional 1,500,000 Purchase Shares for resale by Lincoln Park, pursuant to the terms of the Purchase Agreement and the Registration Rights Agreement. Although the Purchase Agreement provides that we may sell up to \$12.0 million of shares of our common stock to Lincoln Park (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), only 1,500,000 additional Purchase Shares that we may issue to Lincoln Park as Purchase Shares from and after the date of this prospectus, if and when we elect to sell such Purchase Shares to Lincoln Park under the Purchase Agreement, are being registered under the Securities Act for resale by Lincoln Park under the registration statement that includes this prospectus. 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 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 \$4,713,220.68 remaining available to us under the Purchase Agreement.

As of September 24, 2024, there were 3,044,165 shares of common stock issued and outstanding, of which 2,937,688 shares of common stock are held by non-affiliates of our company. If all of the 1,500,000 Purchase Shares that may be offered and resold by Lincoln Park under this prospectus were also issued and outstanding as of August 16, 2024, such 1,500,000 Purchase Shares would represent approximately 33% of the total number of shares of our common stock outstanding, and approximately 33.8% of the total number of outstanding shares of our common stock held by non-affiliates of our company, in each case as September 24, 2024. 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 ultimately decide to sell to Lincoln Park under the Purchase Agreement. If we elect to issue and sell to Lincoln Park under the Purchase Agreement more than the additional 1,500,000 Purchase Shares being registered for resale by Lincoln Park under this prospectus, which we have the right, but not the obligation, to do, we must first register for resale under the Securities Act any such additional shares of our common stock, which could cause additional substantial dilution to our stockholders.

On June 15, 2023, we obtained shareholder approval to issue to Lincoln Park, pursuant to the Purchase Agreement, shares of our common stock, including the Commitment Shares, which exceed 9,443 shares, which was equal to 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement.

The Purchase Agreement prohibits us from directing Lincoln Park to purchase any shares of our common stock if those shares of our common stock, when aggregated with all other shares of our common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park having beneficial ownership, at any single point in time, of more than 4.99% of the then total outstanding shares of our common stock, 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, which limitation we refer to as the Beneficial Ownership Cap.

Issuances of our common stock to Lincoln Park under 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 as a result of any such issuance. Although the number of shares of our common stock that our existing stockholders own will not decrease, the shares of our common stock owned by our existing stockholders will represent a smaller percentage of our total outstanding shares of our common stock after any such issuance of shares of our common stock to Lincoln Park under the Purchase Agreement. There are substantial risks to our stockholders as a result of the sale and issuance of common stock to Lincoln Park under the Purchase Agreement. See “Risk Factors.”

**We effected a 1-for-20 reverse stock split on November 30, 2023 (the “2023 Reverse Stock Split”), pursuant to which every 20 shares of our issued and outstanding common stock were reclassified as one share of common stock. We effected a 1-for-12 reverse stock split on August 9, 2024 (the “2024 Reverse Stock Split” and together with the 2023 Reverse Stock Split, the “Reverse Stock Splits”), pursuant to which every 12 shares of our issued and outstanding common stock were reclassified as one share of common stock. The Reverse Stock Splits had no impact on the par value of our common stock or the authorized number of shares of our common stock. Unless otherwise indicated, all share and per share information in this prospectus is adjusted to reflect the Reverse Stock Splits.**

## **Our Organizational Structure**

Cingulate Inc. is a Delaware corporation that was formed to serve as a holding company. In connection with our initial public offering, we effected certain organizational transactions. On September 29, 2021, Cingulate acquired Cingulate Therapeutics LLC, or CTx, through the merger of a wholly-owned acquisition subsidiary of Cingulate with and into CTx (the “Reorganization Merger”). As a result of the Reorganization Merger, CTx became a wholly-owned subsidiary of Cingulate. Unless otherwise stated or the context otherwise requires, all information in this prospectus reflects the consummation of the Reorganization Merger.

## **Corporate Information**

Our primary executive offices are located at 1901 West 47<sup>th</sup> Place, Kansas City, Kansas 66205 and our telephone number is (913) 942-2300. Our website address is [www.cingulate.com](http://www.cingulate.com). The information contained on, or that can be accessed through, our website is not part of this prospectus and should not be considered as part of this prospectus or in deciding whether to purchase our securities.

Cingulate, PTR, Cingulate Therapeutics, Enfoqis, Enfoqus, Trodesca, Ivoqus, Taylerza, Tymprezi, Accomplish, Mastery and our logo are some of our trademarks used in this prospectus. This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, our trademarks and tradenames referred to in this prospectus may appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks and tradenames.

## **Implications of Being an Emerging Growth Company**

As a company with less than \$1.235 billion in revenue during our most recently completed fiscal year, we qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of relief from certain reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- reduced obligations with respect to financial data, including presenting only two years of audited financial statements and only two years of selected financial data in this prospectus;
- an exception from compliance with the auditor attestation requirement of Section 404 of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act;
- reduced disclosure about our executive compensation arrangements in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding non-binding advisory votes on executive compensation or golden parachute arrangements.

We may take advantage of exemptions for up to five years or such earlier time that we are no longer an emerging growth company. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock. We would cease to be an emerging growth company upon the earliest to occur of: (1) the last day of the fiscal year in which we have more than \$1.235 billion in annual gross revenue, (2) December 31, 2026, (3) the date we are deemed to be a “large accelerated filer” as defined in the Securities Exchange Act of 1934, as amended, or the Exchange Act, and (4) the date on which we have during the previous three-year period issued more than \$1.0 billion in non-convertible debt securities.

The JOBS Act also permits us, as an emerging growth company, to take advantage of an extended transition period to comply with the new or revised accounting standards applicable to public companies and thereby allow us to delay the adoption of those standards until those standards would apply to private companies. We have irrevocably elected to avail ourselves of this exemption and therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

## THE OFFERING

<b>Shares of our common stock offered by the selling stockholder</b>	Up to 1,500,000 Purchase Shares that we may issue and sell to Lincoln Park from time to time under the Purchase Agreement from and after the commencement.
<b>Selling stockholder</b>	Lincoln Park Capital Fund, LLC. See “Selling Stockholder” beginning on page 18 of this prospectus.
<b>Common stock outstanding prior to this offering</b>	3,044,165 shares.
<b>Common stock outstanding immediately after this offering</b>	4,544,165 shares, assuming the sale of 1,500,000 shares. The actual number of shares issued will vary depending on the sales prices in this offering.
<b>Use of Proceeds</b>	We will receive no proceeds from the sale of shares of our common stock by Lincoln Park pursuant to this prospectus. We may receive up to \$4,713,220.68 aggregate gross proceeds under the Purchase Agreement from any sales of shares of our common stock we make to Lincoln Park pursuant to the Purchase Agreement after the commencement, assuming that we sell the full amount of our common stock remaining available to us 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 under the Purchase Agreement will be used for continued research and development and commercialization activities of CTx-1301, and for working capital, capital expenditures and general corporate purposes, including investing further in research and development efforts. See “Use of Proceeds.”
<b>Nasdaq Capital Markets Symbols</b>	Our common stock and warrants are listed on Nasdaq under the symbols “CING” and “CINGW,” respectively.
<b>Risk Factors</b>	Investment in our securities involves a high degree of risk and could result in a loss of your entire investment. See “Risk Factors” beginning on page 7, and the other information included and incorporated by reference in this prospectus for a discussion of the factors you should consider carefully before deciding to invest in our securities.



## RISK FACTORS

*An investment in our securities involves a high degree of risk. Before deciding whether to purchase our securities, including the shares of common stock offered by this prospectus, you should carefully consider the risks and uncertainties described under “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, any subsequent Quarterly Report on Form 10-Q and our other filings with the SEC, all of which are incorporated by reference herein. If any of these risks actually occur, our business, financial condition and results of operations could be materially and adversely affected and we may not be able to achieve our goals, the value of our securities could decline, and you could lose some or all of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. If any of these risks occur, our business, results of operations or financial condition and prospects could be harmed. In that event, the market price of our common stock, and you could lose all or part of your investment.*

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

On April 24, 2023, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has committed to purchase up to \$12.0 million shares of our common stock (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), subject to certain limitations and conditions set forth in the Purchase Agreement, at our direction in our sole discretion from time to time during the period from the Commencement Date through May 2, 2026, unless the Purchase Agreement is terminated prior to such date. We may only receive additional proceeds of up to \$4,713,220.68 from our sale of Purchase Shares 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.

Lincoln Park may sell the shares of our common stock described in this prospectus in a number of different ways and at varying prices. 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, if any, we ultimately sell to Lincoln Park under the Purchase Agreement.

***The terms of the Purchase Agreement limit the amount of shares of common stock we may issue to Lincoln Park, which may limit our ability to utilize the arrangement to enhance our cash resources.***

The Purchase Agreement includes restrictions on our ability to sell shares of common stock to Lincoln Park, including, subject to specified limitations, if a sale would cause Lincoln Park and its affiliates to exceed the Beneficial Ownership Cap. Accordingly, we cannot guarantee that we will be able to sell all 1,500,000 Purchase Shares in this offering. If we cannot sell the full amount of the shares of common stock remaining available to us that Lincoln Park has committed to purchase because of these limitations, we may be required to utilize more costly and time-consuming means of accessing the capital markets, which could materially adversely affect our liquidity and cash position. If we choose to sell more shares of common stock than are offered under this prospectus, we must first register for resale under the Securities Act such additional shares of common stock.

***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. If and when we do elect to sell shares of our common stock to Lincoln Park 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.

***The sale or issuance of our common stock to Lincoln Park may cause dilution and the sale of the shares of common stock by Lincoln Park that it acquires pursuant to the Purchase Agreement, or the perception that such sales may occur, could cause the price of our common stock to decrease.***

On April 24, 2023, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has committed to purchase up to \$12.0 million shares of our common stock (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), subject to certain limitations and conditions set forth in the Purchase Agreement, at our direction in our sole discretion from time to time during the period from the Commencement Date through May 2, 2026, unless the Purchase Agreement is terminated prior to such date. We may only receive additional proceeds of up to \$4,713,220.68 from our sale of Purchase Shares pursuant to 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 sole discretion from time to time over a 36-month period commencing after the satisfaction of certain conditions set forth in the Purchase Agreement. The purchase price for the shares that we may sell to Lincoln Park under the Purchase Agreement will fluctuate based on the trading price of our common stock. Depending on market liquidity at the time, sales of such shares may cause the trading price of our common stock to decrease. We generally have the right to control the timing and amount of any future sales of our shares to Lincoln Park. Additional sales of our common stock, if any, to Lincoln Park 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 shares to Lincoln Park, after Lincoln Park has acquired the shares, Lincoln Park may resell all, some or none of those shares at any time or from time to time in its discretion. Therefore, sales to Lincoln Park by us could result in substantial dilution to the interests of other holders of our common stock. Additionally, the sale of a substantial number of shares of our common stock to Lincoln Park, or the anticipation of such sales, could 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 sales. Under the applicable rules of Nasdaq, on June 15, 2023, we obtained shareholder approval to issue to Lincoln Park, pursuant to the Purchase Agreement, shares of our common stock, including the Commitment Shares, which exceed 9,443 shares, which was equal to 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement.

***Our management will have broad discretion over the use of the net proceeds from our sale of shares of common stock to Lincoln Park, 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, 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.

## CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This prospectus and any documents we incorporate by reference contain forward-looking statements that involve substantial risks and uncertainties. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “estimate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions intended to identify statements about the future. These statements speak only as of the date of this prospectus and involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements include, without limitation, statements about the following:

- our ability to maintain compliance with the continued listing requirements of Nasdaq;
- our lack of operating history and need for additional capital;
- our plans to develop and commercialize our product candidates;
- the timing of our planned clinical trials for CTx-1301, CTx-1302, and CTx-2103;
- the timing of our New Drug Application (“NDA”) submissions for CTx-1301, CTx-1302, and CTx-2103;
- the timing of and our ability to obtain and maintain regulatory approvals for CTx-1301, CTx-1302, CTx-2103, or any other future product candidate;
- the clinical utility of our product candidates;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our ability to identify strategic partnerships;
- our expected use of cash;
- our competitive position and projections relating to our competitors or our industry;
- our ability to identify, recruit, and retain key personnel;
- the impact of laws and regulations;
- our expectations regarding the time during which we will be an emerging growth company under the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”);
- our plans to identify additional product candidates with significant commercial potential that are consistent with our commercial objectives; and
- our estimates regarding future revenue and expenses.

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. You should refer to the “Risk Factors” section of this prospectus and the documents we incorporate by reference for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our 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. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus and the documents we incorporate by reference will prove to be accurate. 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, however, review the factors and risks and other information we describe in the reports we will file from time to time with the SEC after the date of this prospectus.

You should read this prospectus and the documents that we incorporate by 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.

## THE LINCOLN PARK TRANSACTION

### General

On April 24, 2023, we entered into the Purchase Agreement with Lincoln Park, pursuant to which Lincoln Park has committed to purchase up to \$12.0 million shares of our common stock (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), subject to certain limitations and conditions set forth in the Purchase Agreement, at our direction in our sole discretion from time to time during the period from the Commencement Date through May 2, 2026, unless the Purchase Agreement is terminated prior to such date. Pursuant to the Purchase Agreement we issued 1,535 Commitment Shares to Lincoln Park as a fee for making its irrevocable commitment to purchase our common stock under the Purchase Agreement. We may only receive additional proceeds of up to \$4,713,220.68 from our sale of Purchase Shares pursuant to the Purchase Agreement.

On April 24, 2023, we entered into the Registration Rights Agreement, pursuant to which we filed with the SEC the registration statement that includes this prospectus to register for resale under the Securities Act, the shares of our common stock that have been or may be issued to Lincoln Park under the Purchase Agreement.

On April 26, 2023, May 17, 2024 and August 19, 2024, pursuant to the terms of the Purchase Agreement and the Registration Rights Agreement, we filed the Prior Registration Statements with the SEC to register up to 1,185,417 shares of common stock that have subsequently been issued and sold by us to Lincoln Park, consisting of (i) 1,183,882 shares of common stock that we issued and sold to Lincoln Park as Purchase Shares, during the period from the Commencement Date through the date of this prospectus, for aggregate gross proceeds of \$7,286,779.32, and (ii) 1,535 shares Commitment Shares that we issued to Lincoln Park on April 24, 2023 in consideration for Lincoln Park's commitment to purchase shares of common stock at our direction under the Purchase Agreement.

The purpose of this registration statement on Form S-1 is to register an additional 1,500,000 shares of common stock for resale by Lincoln Park, pursuant to the terms of the Purchase Agreement and the Registration Rights 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 set forth in the Purchase Agreement have been satisfied, including that the SEC has declared effective the registration statement that includes this prospectus registering the shares of our common stock that have been and may be issued and sold to Lincoln Park under the Purchase Agreement, which we refer to in this prospectus as the commencement, or Commencement Date. From and after the commencement, we may, from time to time and at our sole discretion for a period of 36-months, on any business day that we select, direct Lincoln Park to purchase up to 125 shares of our common stock, which amount may be increased depending on the market price of our common stock at the time of sale, subject to a maximum commitment of \$500,000 per purchase, which we refer to in this prospectus as "Regular Purchases." Such maximum commitment of \$500,000 is subject to adjustment in certain circumstances after a reorganization, recapitalization, non-cash dividend, stock split or other similar transaction. In addition, at our discretion, Lincoln Park has committed to purchase other "accelerated amounts" and/or "additional accelerated amounts" under certain circumstances. See "Purchase of Shares of our Common Stock Under the Purchase Agreement – *Regular Purchases*" below.

We will control the timing and amount of any sales of our common stock to Lincoln Park. The purchase price of the shares of our common stock that may be sold to Lincoln Park in Regular Purchases, accelerated purchases, and additional accelerated purchases under the Purchase Agreement will be based on the market price of our common stock immediately preceding the time of sale as computed under the Purchase Agreement. The purchase price per share will be equitably adjusted as provided in the Purchase Agreement for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction as set forth in the Purchase Agreement. We may at any time in our sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business day notice. Actual sales of shares of common stock by the Company to Lincoln Park under the Purchase Agreement will depend on a variety of factors to be determined by the Company from time to time, including, among others, market conditions, the trading price of the common stock and determinations by the Company as to the appropriate sources of funding for the Company and its operations.

As of the date of this prospectus we have (i) issued and sold to Lincoln Park 1,183,882 shares of common stock as Purchase Shares, for aggregate gross proceeds of \$7,286,779.32, and (ii) issued to Lincoln Park 1,535 Commitment Shares on April 24, 2023 in consideration for Lincoln Park's commitment to purchase shares of common stock at our direction under the Purchase Agreement. The purpose of this registration statement on Form S-1 is to register an additional 1,500,000 Purchase Shares for resale by Lincoln Park, pursuant to the terms of the Purchase Agreement and the Registration Rights Agreement. Although the Purchase Agreement provides that we may sell up to \$12.0 million of shares of our common stock to Lincoln Park (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), only 1,500,000 additional Purchase Shares that we may issue to Lincoln Park as Purchase Shares from and after the date of this prospectus, if and when we elect to sell such Purchase Shares to Lincoln Park under the Purchase Agreement, are being registered under the Securities Act for resale by Lincoln Park under the registration statement that includes this prospectus. 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 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 \$4,713,220.68 remaining available to us under the Purchase Agreement.

As of September 24, 2024, there were 3,044,165 shares of common stock issued and outstanding, of which 2,937,688 shares of common stock are held by non-affiliates of our company. If all of the 1,500,000 Purchase Shares that may be offered and resold by Lincoln Park under this prospectus were also issued and outstanding as of May 14, 2024, such 1,500,000 Purchase Shares would represent approximately 33% of the total number of shares of our common stock outstanding, and approximately 33.8% of the total number of outstanding shares of our common stock held by non-affiliates of our company, in each case as of September 24, 2024. 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 ultimately decide to sell to Lincoln Park under the Purchase Agreement. If we elect to issue and sell to Lincoln Park under the Purchase Agreement more than the additional 1,500,000 Purchase Shares being registered for resale by Lincoln Park under this prospectus, which we have the right, but not the obligation, to do, we must first register for resale under the Securities Act any such additional shares of our common stock, which could cause additional substantial dilution to our stockholders.

On June 15, 2023, we obtained shareholder approval to issue to Lincoln Park, pursuant to the Purchase Agreement, shares of our common stock, including the Commitment Shares, which exceed 9,443 shares, which was equal to 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement.

The Purchase Agreement prohibits us from directing Lincoln Park to purchase any shares of our common stock if those shares of our common stock, when aggregated with all other shares of our common stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park having beneficial ownership, at any single point in time, of more than 4.99% of the then total outstanding shares of our common stock, 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, which limitation we refer to as the Beneficial Ownership Cap.

Issuances of our common stock to Lincoln Park under 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 as a result of any such issuance. Although the number of shares of our common stock that our existing stockholders own will not decrease, the shares of our common stock owned by our existing stockholders will represent a smaller percentage of our total outstanding shares of our common stock after any such issuance of shares of our common stock to Lincoln Park under the Purchase Agreement. There are substantial risks to our stockholders as a result of the sale and issuance of common stock to Lincoln Park under the Purchase Agreement. See "Risk Factors."

## 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 the Company (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), the Company may, by written notice delivered by us to Lincoln Park, direct Lincoln Park to purchase up to 125 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) 167 shares of our common stock, provided that the closing sale price of our common stock is not below \$240.00 on the purchase date, (ii) 250 shares of our common stock, provided that the closing sale price of our common stock is not below \$360.00 on the purchase date and (iii) 334 shares of our common stock, provided that the closing sale price of our common stock is not below \$480.00 on the purchase date (such share amount limitation, the "Regular Purchase Share Limit"). All share and dollar amounts in the previous sentence are subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction, provided that if, after giving effect to the full proportionate adjustment to the Regular Purchase Share Limit, the adjusted Regular Purchase Share Limit then in effect would preclude us from selling to Lincoln Park at least \$150,000 worth of shares of our common stock in a Regular Purchase (calculated by multiplying (X) the number of Purchase Shares equal to the adjusted Regular Purchase Share Limit, by (Y) the purchase price per Purchase Share covered by such purchase on such date), the Regular Purchase Share Limit for such purchase shall not be fully adjusted proportionally. In such case, the Regular Purchase Share Limit for such purchase will be adjusted to equal the maximum number of Purchase Shares, which taking into account the applicable per share purchase price therefor calculated in accordance with the Purchase Agreement, would enable us to sell to Lincoln Park, an amount of common stock equal to, or as closely approximating without exceeding, \$150,000 (the "Alternate Adjusted Purchase Share Limit"). All share and dollar amounts disclosed in this paragraph relating to the Regular Purchase have been adjusted to reflect the Reverse Stock Splits.

Lincoln Park's maximum commitment in any single Regular Purchase, other than any Regular Purchase with respect to which an Alternate Adjusted Purchase Share Limit shall apply, may not exceed \$500,000.

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

- the lowest sale price for our common stock on the purchase date for such shares of our common stock; and
- the arithmetic 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, we may also direct Lincoln Park, 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 all shares of common stock subject to all prior Regular Purchases, Accelerated Purchases and Additional Accelerated Purchases effected prior to such Purchase Date have been properly delivered to Lincoln Park in accordance with the Purchase Agreement), 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:

- 30% 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
- 300% 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 95% 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, by written notice delivered to 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 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:

- 30% 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
- 300% 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 95% 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.

#### **Suspension Events**

Suspension events 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 delisting of our common stock from Nasdaq, our principal market, provided our common stock is not immediately thereafter trading on the New York Stock Exchange, Nasdaq, 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 any nationally recognized successor thereto);
- the failure of our transfer agent to issue to Lincoln Park shares of our common stock within two business days after the applicable date on which Lincoln Park is entitled to receive such shares of our common stock;
- 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; or
- if at any time we are not eligible to transfer our common stock electronically.

Following the Commencement Date, Lincoln Park does not have the right to terminate the Purchase Agreement upon any of the suspension events 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. So long as a suspension event has occurred and is continuing, or if any event which, after notice and/or lapse of time, would reasonably be expected to become a suspension event has occurred and is continuing, 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 any voluntary or involuntary bankruptcy proceedings by or against the Company that are not discharged within 90 days, the Purchase Agreement would automatically terminate without any action of the Company or Lincoln Park. 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 time of execution 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 under 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 Registration Rights Agreement, except the Company is prohibited (with certain specified exceptions set forth in the Purchase Agreement) from effecting or entering into an agreement to effect an "equity line of credit" or other continuous offering or similar offering in which the Company may issue and sell common stock, from time to time over a certain period of time, at future determined prices based on the market prices of the common stock at the time of each such issuance and sale.



## Effect of Performance of the Purchase Agreement on Our Stockholders

All of the 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.

Pursuant to the terms of the Purchase Agreement, from and after commencement, we have the right, but not the obligation, from time to time to direct Lincoln Park to purchase up to \$12.0 million of our common stock (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus, and we may only receive proceeds of up to \$4,713,220.68 from our sale of Purchase Shares). Depending on the price per share at which we sell our common stock to Lincoln Park pursuant to the Purchase Agreement, we may need to sell to Lincoln Park under the Purchase Agreement more shares of our common stock than are being offered under this prospectus in order to receive aggregate gross proceeds equal to the \$4,713,220.68 remaining available to us under the Purchase Agreement. If we choose to do so, we must first register for resale under the Securities Act such additional shares of our common stock, which could cause additional substantial dilution to our stockholders. The number of shares of our common stock ultimately offered for resale by Lincoln Park under this prospectus is dependent upon the number of shares of our common stock we direct Lincoln Park to purchase under the Purchase Agreement.

The following table sets forth the amount of gross proceeds we would receive from Lincoln Park from our sale of common stock to Lincoln Park under the Purchase Agreement at varying purchase prices:

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)
\$ 1.00	1,500,000	33.0%	\$ 1,500,000
\$ 2.00	1,500,000	33.0%	\$ 3,000,000
\$ 5.01(3)	940,763	23.6%	\$ 4,713,220.68
\$ 10.00	471,322	13.4%	\$ 4,713,220.68

(1) Although the Purchase Agreement provides that we may sell up to \$12.0 million of shares of our common stock to Lincoln Park (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), only 1,500,000 Purchase Shares that we may issue to Lincoln Park as Purchase Shares from and after the date of this additional prospectus, if and when we elect to sell such Purchase Shares to Lincoln under the Purchase Agreement, are being registered under the Securities Act for resale by Lincoln Park under the registration statement that includes this prospectus, which may or may not cover all the additional shares of our common stock we ultimately sell to Lincoln Park under the Purchase Agreement, depending on the purchase price per share of our common stock. We may only receive additional proceeds of up to \$4,713,220.68 from our sale of Purchase Shares pursuant to the Purchase Agreement. On June 15, 2023, we obtained shareholder approval to issue to Lincoln Park, pursuant to the Purchase Agreement, shares of our common stock, including the Commitment Shares, which exceed 9,443 shares, which was equal to 19.99% of the shares of our common stock outstanding immediately prior to the execution of the Purchase Agreement. The number of shares issued in this column does not give effect to the Beneficial Ownership Cap.

(2) The denominator is based on 3,044,165 shares of our common stock outstanding as of September 24, 2024, 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, 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 Beneficial Ownership Cap.

(3) The closing sale price per share of our common stock on September 24, 2024.

## 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 may receive up to \$4,713,220.68 in gross proceeds under the Purchase Agreement from any sales we make to Lincoln Park pursuant to the Purchase Agreement after the date of this prospectus. We estimate that the net proceeds to us from the sale of our common stock to Lincoln Park pursuant to the Purchase Agreement would be up to approximately \$4.57 million assuming that we sell the full amount of our common stock remaining available to us that we have the right, but not the obligation, to sell to Lincoln Park 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 the selling stockholder that we receive under the Purchase Agreement are expected to be used for continued research and development and commercialization activities of CTx-1301, and for working capital, capital expenditures and general corporate purposes, including investing further in research and development efforts. 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 actions affecting our product candidates and our business, technological advances 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 net proceeds as described above, we expect to invest the net proceeds in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government. It is possible that no additional shares will be issued under the Purchase Agreement.

## DILUTION

The sale of common stock to Lincoln Park pursuant to the Purchase Agreement will have a dilutive impact on our stockholders. In addition, the lower the price of our common stock is at the time we exercise our right to sell shares to Lincoln Park, the more shares of our common stock we will issue to raise our desired amount of proceeds from the sale, and the greater the dilution to our existing shareholders.

The price that Lincoln Park will pay for our common stock to be resold pursuant to this prospectus will depend upon the timing of sales and will fluctuate based on the trading price of common stock.

As of June 30, 2024, we had a net tangible book value of \$3.1 million, or \$3.95 per share of common stock. Our net tangible book value per share represents total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding as of June 30, 2024.

After giving effect to the sale of 902,300 shares of common stock pursuant to our At The Market Offering Agreement with H.C. Wainwright & Co., LLC, for net proceeds of \$5,804,393.40 after June 30, 2024 (the "ATM Sales") and the sale of 1,092,337 shares of common stock pursuant to our Purchase Agreement for net proceeds of \$6,081,849.05 after June 30, 2024 (the "Purchase Agreement Sales" and together with the ATM Sales, the "Sales"), our pro forma tangible net book value as of June 30, 2024 would have been approximately \$14.9 million, or approximately \$5.39 per share of common stock, an increase of approximately \$1.44 per share of common stock.

After giving effect to the sale of 1,500,000 Purchase Shares to Lincoln Park pursuant to the Purchase Agreement at an assumed price of \$5.01 per share, the closing price of our common stock on Nasdaq on September 24, 2024, without giving effect to the Beneficial Ownership Cap under the Purchase Agreement, our pro forma adjusted net tangible book value as of June 30, 2024, would have been approximately \$19.6 million, or \$4.57 per share. This represents an immediate decrease in pro forma net tangible book value of \$0.82 per share to existing stockholders and an immediate dilution of \$0.44 per share to new investors.

The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		\$	5.01
Historical net tangible book value per share of common stock as of June 30, 2024	\$	3.95	
Increase in net tangible book value attributable to the Sales	\$	1.44	
Pro forma net tangible book value after giving effect to the Sales	\$	5.39	
Increase in pro forma net tangible book value per share attributable to this offering	\$	(0.82)	
Pro forma adjusted net tangible book value per share after this offering		\$	4.57
Dilution per share to new investors purchasing shares in this offering		\$	0.44

The table and discussion above are based on 780,762 shares of our common stock outstanding as June 30, 2024 (2,775,399) shares of common stock outstanding on a pro forma basis after giving effect to the ATM Sales), and excludes, as of such date, the following:

- 89,161 shares of our common stock issuable upon exercise of outstanding stock options issued under the 2021 Plan with a weighted average exercise price of \$45.61 per share;
- 35,144 shares of our common stock that are available for future issuance under the 2021 Plan;
- 833,689 shares of common stock issuable upon the exercise of outstanding warrants with a weighted average exercise price of \$48.36 per share; and
- 16,500 shares of common stock issuable upon the exercise of outstanding pre-funded with a weighted average exercise price of \$0.0012 per share.

## SELLING STOCKHOLDER

This prospectus relates to the possible resale by the selling stockholder, Lincoln Park, of additional shares of our common stock that may be issued to Lincoln Park pursuant to the Securities Purchase Agreement and the Purchase Agreement. We are filing the registration statement of which this prospectus is a part pursuant to the provisions of the Registration Rights Agreements, which we entered into with Lincoln Park on April 24, 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 under the Purchase Agreement.

Lincoln Park, as the selling stockholder, may, from time to time, offer and sell pursuant to this prospectus up to 1,500,000 Purchase Shares that we have issued or may issue to Lincoln Park. 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 September 24, 2024. The percentages of shares owned before and after the offering are based on 3,044,165 shares of common stock outstanding as of September 24, 2024. 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.

Throughout this prospectus, when we refer to the shares of common stock being offered for resale by the selling stockholder through this prospectus, we are referring to the shares of common stock that have been and may be issued and sold by us to Lincoln Park pursuant to the Purchase Agreement, unless otherwise indicated.

<u>Name of Selling Stockholder</u>	<u>Number of Shares of Common Stock Owned Prior to Offering<sup>(2)</sup></u>		<b>Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus<sup>(3)</sup></b>	<u>Number of Shares of Common Stock Owned After Offering<sup>(4)</sup></u>	
	<u>Number</u>	<u>Percent</u>		<u>Number</u>	<u>Percent</u>
	Lincoln Park Capital Fund, LLC <sup>(1)</sup>	0		-	1,500,000

(1) Josh Scheinfeld and Jonathan Cope, the Managing Members of Lincoln Park Capital, LLC, the manager of Lincoln Park, are deemed to be beneficial owners of all of the shares of Class A common stock owned directly by Lincoln Park. 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 Registration Rights Agreement. Neither Lincoln Park Capital, LLC nor Lincoln Park is a licensed broker dealer or an affiliate of a licensed broker dealer.

(2) We have excluded from the number of shares of our common stock beneficially owned prior to the offering all of the 1,500,000 Purchase Shares that we may issue and sell to Lincoln Park pursuant to the Purchase Agreement from and after commencement 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 Beneficial Ownership Cap.

(3) Although the Purchase Agreement provides that we may sell up to \$12.0 million of our common shares to Lincoln Park (of which an aggregate of \$7,286,779.32 of shares of common stock have already been issued and sold to Lincoln Park as of the date of this prospectus), only 1,500,000 Purchase Shares that we may issue to Lincoln Park as Purchase Shares from and after the date of this prospectus, if and when we elect to sell such Purchase Shares to Lincoln under the Purchase Agreement, are being registered under the Securities Act for resale by Lincoln Park under the registration statement that includes this prospectus.

(4) Assumes the sale of all shares of our common stock registered for resale by the selling stockholder pursuant to the registration statement that includes this prospectus, although the selling stockholder is under no obligation known to us to sell any shares of common stock at any particular time.

## DESCRIPTION OF SECURITIES

*The following description summarizes the most important terms of our securities. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation and restated bylaws, copies of which are filed as exhibits to the registration statement of which this prospectus forms a part, which are incorporated by reference herein.*

### Authorized Capitalization

We have 250,000,000 shares of capital stock authorized under our amended and restated certificate of incorporation, consisting of 240,000,000 shares of common stock with a par value of \$0.0001 per share and 10,000,000 shares of preferred stock with a par value of \$0.0001 per share.

As of September 24, 2024, there were 3,044,165 shares of common stock outstanding, and no shares of preferred stock outstanding.

### Common Stock

Holders of our common stock are entitled to such dividends as may be declared by our board of directors out of funds legally available for such purpose. The shares of common stock are neither redeemable nor convertible. Holders of common stock have no preemptive or subscription rights to purchase any of our securities.

Each holder of our common stock is entitled to one vote for each such share outstanding in the holder's name. No holder of common stock is entitled to cumulate votes in voting for directors.

In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to receive a pro rata share of our assets, which are legally available for distribution, after payments of all debts and other liabilities. All of the outstanding shares of our common stock are fully paid and non-assessable.

### Preferred Stock

Our board of directors has the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more classes or series and to fix the designations, rights, preferences, privileges and restrictions thereof, without further vote or action by the stockholders. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such class or series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action. No shares of preferred stock are outstanding, and we have no present plan to issue any shares of preferred stock.

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

The provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

#### *Section 203 of the Delaware General Corporation Law*

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

***Certificate of Incorporation and Bylaws***

Our amended and restated certificate of incorporation and amended and restated bylaws provide for:

- classifying our board of directors into three classes;
- authorizing the issuance of “blank check” preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- limiting the removal of directors by the stockholders;
- requiring a supermajority vote of stockholders to amend our bylaws or certain provisions our certificate of incorporation;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;
- eliminating the ability of stockholders to call a special meeting of stockholders;
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings; and
- establishing Delaware as the exclusive jurisdiction for certain stockholder litigation against us.

### ***Potential Effects of Authorized but Unissued Stock***

Pursuant to our amended and restated certificate of incorporation, we have shares of common stock and preferred stock available for future issuance without stockholder approval. We may utilize these additional shares for a variety of corporate purposes, including future public offerings to raise additional capital, to facilitate corporate acquisitions or payment as a dividend on the capital stock.

The existence of unissued and unreserved common stock and preferred stock may enable our board of directors to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, the board of directors has the discretion to determine designations, rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock, all to the fullest extent permissible under the Delaware General Corporation Law and subject to any limitations set forth in our certificate of incorporation. The purpose of authorizing the board of directors to issue preferred stock and to determine the rights and preferences applicable to such preferred stock is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible financings, acquisitions and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from acquiring, a majority of our outstanding voting stock.

### ***Choice of Forum***

Unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any stockholder to bring (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Company or the Company's stockholders, (iii) any action asserting a claim against the Company or any director or officer of the Company arising pursuant to, or a claim against the Company or any director or officer of the Company, with respect to the interpretation or application of any provision of the DGCL, our certificate of incorporation or bylaws, or (iv) any action asserting a claim governed by the internal affairs doctrine, except for, in each of the aforementioned actions, any claims to which the Court of Chancery of the State of Delaware determines it lacks jurisdiction. This provision will not apply to claims arising under the Exchange Act, or for any other federal securities laws which provide for exclusive federal jurisdiction. However, the exclusive forum provision provides that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America will be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. Therefore, this provision could apply to a suit that falls within one or more of the categories enumerated in the exclusive forum provision and that asserts claims under the Securities Act, inasmuch as Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. There is uncertainty as to whether a court would enforce such an exclusive forum provision with respect to claims under the Securities Act.

We note that there is uncertainty as to whether a court would enforce the provision and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

### ***Transfer Agent***

The transfer agent of our common stock is Computershare Trust Company, N.A.

## PLAN OF DISTRIBUTION

The shares of our common stock offered by this prospectus are being offered 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 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.

Lincoln Park is an "underwriter" within the meaning of Section 2(a)(11) of the Securities Act.

Lincoln Park has informed us that it intends to use an unaffiliated broker-dealer to effectuate all sales, if any, of our common stock that it has acquired and may in the future acquire from us pursuant to the Purchase Agreement. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions.

Brokers, dealers, underwriters or agents participating in the distribution of the shares of our common stock offered by this prospectus may receive compensation in the form of commissions, discounts, or concessions from the selling stockholder and/or the purchasers, for whom the broker-dealers may act as agent. The compensation paid to any such particular broker-dealer 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 the selling stockholder or 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 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 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 Lincoln Park 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 sale of the shares of our common stock included in this prospectus by Lincoln Park. We estimate that the total expenses for the offering will be approximately \$135,000. 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 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.

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.

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 by this prospectus have been sold by Lincoln Park.

Our common stock and warrants are listed on Nasdaq under the symbols "CING" and "CINGW," respectively.

## LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Lowenstein Sandler LLP, New York, New York.

## EXPERTS

Our consolidated financial statements as of December 31, 2023 and 2022, and for each of the years in the two-year period ended December 31, 2023, have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2023 and 2022 consolidated financial statements contains an explanatory paragraph that states that our losses and negative cash flows from operations raise substantial doubt about the entity's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of that uncertainty.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The following documents filed with the SEC are incorporated by reference into this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2023, filed on April 1, 2024;
- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2024](#) and [June 30, 2024](#), filed on May 8, 2024 and August 13, 2024;
- our Current Reports on Form 8-K, filed [January 29, 2024](#), [February 7, 2024](#), [February 13, 2024](#), [February 26, 2024](#), [March 18, 2024](#), [May 13, 2024](#), [May 28, 2024](#), [June 12, 2024](#), [June 18, 2024](#), [July 1, 2024](#), [July 30, 2024](#), [August 7, 2024](#), [August 19, 2024](#), [August 28, 2024](#), [August 29, 2024](#), [September 3, 2024](#), [September 10, 2024](#), [September 12, 2024](#), [October 4, 2024](#) and October 7, 2024 (other than any portions deemed furnished and not filed);
- our Definitive Proxy Statements on Schedule 14A filed with the SEC on [April 26, 2024](#), [June 28, 2024](#) and [July 22, 2024](#); and
- the description of our common stock contained in our Registration Statement on [Form 8-A](#), filed with the SEC on December 3, 2021, including any amendments thereto or reports filed for the purposes of updating this description, including [Exhibit 4.5](#) to our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on April 1, 2024.

We also incorporate by reference all documents we file pursuant to Section 13(a), 13(c), 14 or 15 of the Exchange Act (other than any portions of filings that are furnished rather than filed pursuant to Items 2.02 and 7.01 of a Current Report on Form 8-K) after the date of the initial registration statement of which this prospectus is a part and prior to effectiveness of such registration statement. All documents we file in the future pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of the offering are also incorporated by reference and are an important part of this prospectus.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document which also is or deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

## WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference into this prospectus. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any jurisdiction where the offer is not permitted. You should assume that the information contained in this prospectus, or any document incorporated by reference in this prospectus, is accurate only as of the date of those respective documents, regardless of the time of delivery of this prospectus or any sale of our securities.

We are subject to the informational requirements of the Exchange Act and in accordance therewith we file annual, quarterly, and other reports, proxy statements and other information with the Commission under the Exchange Act. Such reports, proxy statements and other information, including the Registration Statement, and exhibits and schedules thereto, are available to the public through the Commission's website at [www.sec.gov](http://www.sec.gov).

We make available free of charge on or through our website our Annual Reports 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 Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after we electronically file such material with or otherwise furnish it to the Commission. The registration statement and the documents referred to under "*Incorporation of Certain Information by Reference*" are also available on our website [cingulate.com](http://cingulate.com).

We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

1,500,000 Shares of Common Stock



PROSPECTUS

October 7, 2024

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