

PROSPECTUS SUPPLEMENT
(To Prospectus dated December 1, 2025)



5,000,000 Shares of Common Stock

We are offering 5,000,000 shares of our common stock pursuant to this prospectus supplement and accompanying prospectus.

Our common stock is listed on The Nasdaq Global Market under the symbol "CAMP." On December 17, 2025, the last reported sale price per share of our common stock was \$7.13.

An investment in our common stock involves significant risks. You should carefully consider the risks and uncertainties described under the heading "[Risk Factors](#)" beginning on page [S-10](#) of this prospectus supplement and in the accompanying prospectus, as well as those contained in the other documents that are incorporated by reference into this prospectus supplement, the accompanying prospectus and any related free writing prospectus. You should carefully read this entire prospectus supplement and the accompanying prospectus, including any information incorporated by reference hereto and thereto, before deciding whether to purchase shares of our common stock.

	<u>Per Share</u>	<u>Total</u>
Offering price	\$ 6.00	\$ 30,000,000
Underwriting discounts and commissions ⁽¹⁾	\$ 0.36	\$ 1,800,000
Proceeds to CAMP4 Therapeutics Corporation, before expenses	\$ 5.64	\$ 28,200,000

(1) See "Underwriting" beginning on page [S-21](#) of this prospectus supplement for additional information regarding underwriting compensation.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The shares of common stock will be ready for delivery against payment therefor on or about December 19, 2025.

Leerink Partners

Prospectus Supplement dated December 18, 2025

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a registration statement that we filed with the Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration process and consists of two parts. The first part is this prospectus supplement, which describes the specific terms of this common stock offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

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

Neither we nor the underwriter has authorized anyone to provide any information other than that contained or incorporated by reference into this prospectus supplement, the accompanying prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriter take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell, or a solicitation of an offer to purchase, the common stock offered by this prospectus supplement and the accompanying prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein or therein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Documents By Reference” in this prospectus supplement and in the accompanying prospectus.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any shares of common stock offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

References in this prospectus supplement to “CAMP4,” “the Company,” “we,” “us” and “our” refer to CAMP4 Therapeutics Corporation and our subsidiary on a consolidated basis, as appropriate, unless we state otherwise or the context otherwise requires. “CAMP4,” “RAP Platform,” “RNA Actuator” and our other registered or common law trademarks, trade names or service marks appearing in this prospectus supplement are the property of CAMP4 Therapeutics Corporation and are registered as trademarks in the United States and other countries. This prospectus supplement and the other documents incorporated by reference contain references to our trademarks and to

trademarks belonging to other entities. Each of the other trademarks, trade names and service marks included in this prospectus supplement belongs to its respective holder. Solely for convenience, trademarks, trade names and service marks referred to in this prospectus supplement, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to those trademarks, trade names and service marks. We do not intend our use or display of other entities' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus supplement, any free writing prospectus, the accompanying base prospectus and the documents we have filed with the SEC that are incorporated herein by reference contain forward-looking statements that involve substantial risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. All statements other than statements of historical fact contained in this prospectus supplement, including statements regarding our strategy, future operations, future financial position, prospects, plans, objectives of management and expected growth, are forward-looking statements. These statements are based on our current beliefs, expectations and assumptions regarding our intentions, beliefs or current expectations concerning, among other things, the future of our business, future plans and strategies, our operational results and other future conditions. Forward-looking statements 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.

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,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions intended to identify statements about the future, although not all forward-looking statements contain these identifying words. These forward-looking statements include, without limitation, statements about the following:

- the initiation, timing, progress, results and costs of our research and development programs and of our current and future preclinical studies and clinical trials of our product candidates, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, as well as the period during which the results of the trials are expected become available;
- the timing of our planned good laboratory practices toxicology studies and regulatory submissions, initiation of planned clinical trials and timing of expected clinical results for our current and future product candidates;
- the timing of any submissions of filings for regulatory approval of, and our ability to obtain and maintain regulatory approvals for, any product candidates we may develop;
- our ability to identify patients with the diseases treated by our product candidates, and to enroll patients in trials;
- our expectations regarding the size of the patient populations, market acceptance and opportunity for and clinical utility of our product candidates, if approved for commercial use;
- our reliance on third party manufacturing partners to comply with significant regulations with respect to manufacturing our products;
- our expectations regarding the scope of any approved indication for any product candidates we may develop;
- our ability to successfully commercialize our product candidates, if approved;
- our ability to leverage our RAP Platform to identify and develop future product candidates;
- our estimates of our expenses, ongoing losses, future revenue, capital requirements and our need for or ability to obtain additional funding before we can expect to generate any revenue from product sales;
- our ability to establish or maintain strategic collaborations or arrangements, including potential business development opportunities and potential licensing partnerships, and our ability to attract collaborators with development, regulatory and commercialization expertise;
- our ability to identify, recruit and retain key personnel;

- our reliance upon intellectual property licensed from third parties and our ability to obtain such licenses on commercially reasonable terms or at all;
- our ability to protect and enforce our intellectual property position for our product candidates, and the scope of such protection;
- our financial performance;
- the sufficiency of our existing cash and cash equivalents to fund our future operating expenses and capital expenditure requirements;
- our competitive position and the development of and projections relating to our competitors or our industry;
- our estimates regarding future expenses and needs for additional financing;
- the impact of laws and regulations;
- the effect of changes in international trade policies and general economic, industry, geopolitical and market conditions, such as uncertainties related to military conflict or war, tariffs (including tariffs that have been or may in the future be imposed by the United States or other countries), sanctions, trade protection measures or other trade barriers, inflation and financial institution instability, or pandemic or epidemic disease outbreaks, or the impact of the recent United States government shutdown, many of which are beyond our control, as well as the value of our common stock and our ability to access capital markets; and
- our expectations regarding the time during which we will be an emerging growth company under the Jumpstart Our Business Startups Act of 2012, as amended (the “JOBS Act”) and a smaller reporting company, as defined in the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

Although we base these forward-looking statements on assumptions that we believe are reasonable when made, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from those made in or suggested by the forward-looking statements contained in this prospectus supplement. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this prospectus supplement, those results or developments may not be indicative of results or developments in subsequent periods.

Given these risks and uncertainties, you are cautioned not to place undue reliance on these forward-looking statements. Any forward-looking statement that we make in this prospectus supplement speaks only as of the date of such statement. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless specifically expressed as such, and should only be viewed as historical data. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus supplement.

Unless otherwise indicated, market and industry data contained in this prospectus supplement, including potential market opportunities, is based on our management’s estimates and research, as well as industry and general publications and research and studies conducted by third parties. Although we believe that the information from these third-party publications, research and studies included in this prospectus supplement is reliable, and we are responsible for the accuracy of such information, we have not independently verified the accuracy or completeness of this information. Management’s estimates are derived from publicly available information, their knowledge of our industry and their assumptions based on such information and knowledge, which we believe to be reasonable. This data involves a number of assumptions and limitations and the industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section “Risk Factors” in this prospectus supplement, in our Annual Report on Form 10-K for the year ended December 31, 2024, in our

Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, June 30, 2025, and September 30, 2025, and in our subsequent filings with the SEC. These and other factors could cause our future performance to differ materially from our assumptions and estimates.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in this prospectus supplement, the accompanying base prospectus and in the documents we incorporate by reference. This summary is not complete and does not contain all of the information that you should consider before making an investment decision. You should read this entire prospectus carefully, especially the risks of investing in our common stock discussed under “Risk Factors” beginning on page S-10 of this prospectus supplement and page 6 of the accompanying base prospectus, along with our consolidated financial statements and notes to those consolidated financial statements and the other documents incorporated by reference in this prospectus supplement, along with any free writing prospectus that we have authorized for use in connection with this offering.

Company Information

We are a clinical-stage biopharmaceutical company pioneering the discovery and development of a new class of RNA-targeting therapeutics with the goal of upregulating gene expression and restoring healthy protein levels to treat a broad range of genetic diseases. Regulatory RNAs (“regRNAs”) play a central role in the regulation of every protein-coding gene by contributing to gene activation and suppression. Our approach is designed to amplify messenger RNA (“mRNA”) expression by harnessing the power of regRNAs that form localized complexes with transcription factors and regulate gene expression. Our proprietary RNA Actuating Platform (“RAP Platform”) allows us to rapidly and systematically identify and characterize the active regulatory elements controlling every expressed gene and tens of thousands of druggable enhancer and promoter regRNA sequences that control protein-coding genes. Once a disease-associated target gene is identified, we apply our RAP Platform to identify the controlling regRNA and rapidly generate novel antisense oligonucleotide (“ASO”) candidates, which we refer to as RNA Actuators. These ASOs are designed to bind to the identified regRNA and amplify the expression of the target gene in a specific and controllable way. We are primarily focused on diseases of the central nervous system with validated disease biology, and we believe our RAP Platform allows us to address a broad range of rare and prevalent genetic diseases in which a modest increase in protein expression has the potential to be clinically meaningful.

We are leveraging our RAP Platform to advance a preclinical program for the treatment of synaptic Ras GTPase activating protein 1 (“SYNGAP1”)-related disorders, a group of neurodevelopmental conditions caused by pathogenic variants in the SYNGAP1 gene that result in a haploinsufficient state, reducing SYNGAP protein levels by up to 50%. SYNGAP plays a critical role in cognitive development and synaptic function. Epilepsy is a common characteristic of these disorders and nearly all patients experience some degree of developmental delay and cognitive impairment. Incidence estimates vary significantly, ranging from one to 40 per 100,000 individuals. While we believe that SYNGAP1-related disorders remain underdiagnosed, we estimate that there are more than 10,000 individuals living with these disorders in the United States. SYNGAP1-related disorders are reported to represent 0.5% to 1.0% of all intellectual disability cases, making them among the most common causes of intellectual disability in patients with epilepsy, and indicating that the patient population may be significantly larger than incidence estimates suggest. There are no FDA-approved, disease-modifying therapies for SYNGAP1-related disorders. Treatment is often limited to supportive physical, occupational and speech therapy. A combination of non-specific anti-seizure medications may be prescribed, though SYNGAP1-related disorders have proven difficult to control with available therapeutics. Up to 50% of patients do not adequately respond to medication, in which case implantable devices, such as those for vagus nerve stimulation, may offer incremental therapeutic benefit. We are advancing our SYNGAP program to address the significant unmet need by targeting the direct cause of SYNGAP1-related disorders, haploinsufficiency, which we believe is amenable to targeting through regRNAs. Our novel approach targets the SYNGAP1 gene at the transcriptional level to restore SYNGAP function and improve symptoms by utilizing an intrathecally delivered ASO. Upregulation of SYNGAP1 gene expression may increase SYNGAP protein levels in amounts sufficient to yield therapeutic benefit. Our preclinical studies demonstrated a dose-dependent increase in SYNGAP mRNA levels accompanied by an increase in SYNGAP protein expression. On May 16, 2025, we presented preclinical data from our SYNGAP program in an oral presentation at the 28th American Society of Gene and Cell Therapy Annual Meeting. We observed that intracerebroventricular injection of our lead development candidate, CMP-002 (formerly known as CMP-SYNGAP-01), restored SYNGAP protein levels to near normal range in haploinsufficient mice carrying a single copy of the human SYNGAP1 gene after a single dose and rescued motor defects and spatial learning defects following two doses. Additionally, we observed

that biweekly intrathecal injections of CMP-002 were well tolerated in cynomolgus monkeys and resulted in a significant increase in SYNGAP protein levels across multiple brain regions clinically relevant to the disease, with dose-linear increases of CMP-002 in disease-relevant brain regions. We have initiated GLP toxicology studies for CMP-002 to enable the filing of a clinical trial application. Pending successful completion of GLP toxicology studies and regulatory clearance, we intend to initiate a global Phase 1/2 clinical trial in individuals with SYNGAP1-related disorders as early as the second half of 2026.

Our principal executive offices are located at One Kendall Square, Building 1400 West, 3rd Floor, Cambridge, Massachusetts 02139 and our telephone number is (617) 651-8867. Our website address is www.camp4tx.com. The information contained on, or accessible through, our website is not incorporated by reference into this prospectus. We have included our website in this prospectus solely as an inactive textual reference, and investors should not rely on any such information in deciding whether to purchase our common stock.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We are an emerging growth company, as defined in the JOBS Act, and we may remain an emerging growth company until December 31, 2029 or until such earlier time that we are no longer an emerging growth company. For so long as we remain an emerging growth company, we are permitted and intend to rely on certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved and an exemption from compliance with the requirements regarding the communication of critical audit matters in the auditor's report on financial statements.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have elected to avail ourselves of this extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we will adopt the new or revised standard at the time private companies adopt the new or revised standard and will do so until such time that we either (i) irrevocably elect to "opt out" of such extended transition period or (ii) no longer qualify as an emerging growth company. We may choose to early adopt any new or revised accounting standards whenever such early adoption is permitted for private companies. As a result of this election, our financial statements may not be comparable to those of companies that are not emerging growth companies.

We will remain an emerging growth company until the earliest to occur of: (i) the last day of the fiscal year in which we have at least \$1.235 billion in annual revenue; (ii) the last day of the fiscal year in which we are deemed to be a "large accelerated filer," as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded \$700.0 million as of the last business day of the second fiscal quarter of such year; (iii) the date on which we have issued more than \$1.0 billion in nonconvertible debt securities during the prior three-year period; and (iv) December 31, 2029.

We are also a "smaller reporting company," as defined in the Exchange Act, meaning that the market value of our shares held by non-affiliates is less than \$700.0 million and our annual revenue was less than \$100.0 million during the most recently completed fiscal year. We may continue to be a smaller reporting company if either: (i) the market value of our shares held by non-affiliates is less than \$250.0 million; or (ii) our annual revenue was less than \$100.0 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than \$700.0 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

THE OFFERING

Common stock offered by us pursuant to the prospectus supplement

5,000,000 shares of common stock

Common stock to be outstanding immediately after this offering

51,880,185 shares of common stock.

Use of proceeds

We estimate that the net proceeds to us from this offering will be approximately \$28.0 million after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We currently intend to use the net proceeds from the sale of common stock offered under this prospectus supplement primarily to support continued development activities for our product candidates, as well as general corporate purposes. See "[Use of Proceeds](#)" in this prospectus supplement for more information.

Risk factors

You should read the "[Risk Factors](#)" in this prospectus supplement, the accompanying base prospectus, and under similar headings in the other documents incorporated by reference into this prospectus supplement for a discussion of factors to consider carefully before deciding to purchase shares of our common stock.

Nasdaq Global Market Symbol

"CAMP".

The number of shares of our common stock that will be outstanding immediately after this offering as shown above is based on 46,880,185 shares of common stock outstanding as of September 30, 2025, which number excludes:

- 2,885,206 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2025, at a weighted average exercise price of \$6.52 per share;
- 32,721,172 shares of common stock (or, for certain investors, pre-funded warrants in lieu of common stock), which may be issuable upon the occurrence or waiver by investors of certain pre-specified milestones in connection with the second closing of a private placement described in the Securities Purchase Agreement (the "Securities Purchase Agreement"), dated September 9, 2025, by and between the Company and certain investors named therein;
- 1,818,223 shares of common stock reserved for future issuance under our 2024 Equity Incentive Plan as of September 30, 2025;
- 415,913 shares of common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan as of September 30, 2025;
- 142 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2025, at a weighted-average exercise price equal to \$11.21 per share; and
- 6,003,758 shares of our common stock issuable upon the exercise of pre-funded warrants outstanding as of September 30, 2025, at an exercise price equal to \$0.0001 per share.

Unless otherwise noted, the information in this prospectus supplement:

- assumes no exercise of the outstanding stock options, outstanding warrants or outstanding pre-funded warrants described above; and
- does not reflect the potential issuance of shares of our common stock that remain available for sale as of the date of this prospectus supplement under our "at-the-market" offering program, pursuant to which we may

sell common stock for remaining gross proceeds of up to \$100 million from time to time under our Sales Agreement with Leerink Partners LLC.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below together with all of the other information contained in this prospectus supplement and the accompanying base prospectus and the risk factors in our most recent Annual Report on Form 10-K, our most recent Quarterly Reports on Form 10-Q, together with other information in this prospectus supplement, the accompanying base prospectus and the information and documents incorporated by reference in this prospectus supplement and the accompanying base prospectus, and in any prospectus supplement or free writing prospectus that we authorize for use in connection with this offering. If any of the following risks actually occur, our business, prospects, operating results and financial condition could suffer materially. In such event, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to This Offering

Sale of a substantial number of shares of our common stock, including by us, could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. All of our outstanding shares of common stock are, and the shares of common stock sold in this offering will be, freely tradeable without restriction or further registration under the Securities Act, unless owned or purchased by our “affiliates” as that term is defined in Rule 144 under the Securities Act.

In addition, we have filed or intend to file registration statements registering all shares of common stock that we may issue under our equity compensation plans or pursuant to equity awards made to newly hired employees outside of equity compensation plans. These shares can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates.

Our management may invest or spend the proceeds of this offering in ways with which you may not agree or in ways that may not yield a return.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

In addition, the issuance from time to time of shares of our common stock in this offering, or our ability to issue these shares of common stock, could result in resales of our common stock by our current stockholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our common stock.

Purchasers will experience immediate dilution in the book value per share of the common stock purchased in the offering.

The price of our common stock to be sold in this offering is substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. After giving effect to the sale of shares of our common stock in the aggregate amount of 5,000,000 shares of our common stock at the offering price of \$6.00 per share of common stock, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2025 would have been approximately \$86.7 million, or approximately \$1.67 per share. This represents an immediate increase in as adjusted net tangible book value of approximately \$0.42 per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately \$4.33 per share to purchasers of our common stock in this offering. See “Dilution” in this prospectus supplement for more information.

The price of our common stock may be volatile and fluctuate substantially, which could result in substantial losses for our stockholders.

The trading price of our common stock has been, and is likely to continue to be, volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. Since shares of our common stock were sold in our initial public offering in October 2024 at a price of \$11.00 per share and through December 17, 2025, the closing price per share of our common stock ranged from a high of \$11.74 per share to a low of \$1.35 per share. The stock market in general and the market for smaller biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by any investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by any investors in this offering.

We do not anticipate paying any cash dividends on our common stock in the foreseeable future. Accordingly, stockholders must rely on capital appreciation, if any, for any return on their investment.

We have never declared or paid cash dividends on our common stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. As a result, capital appreciation, if any, of our common stock will be our stockholders' sole source of gain for the foreseeable future.

USE OF PROCEEDS

We estimate that the net proceeds to us from the issuance and sale of shares of common stock in this offering will be approximately \$28.0 million after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We currently anticipate that we will use the net proceeds from this offering, together with our existing cash, cash equivalents and marketable securities, primarily to support continued development activities for our product candidates, as well as general corporate purposes.

This expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual use of the net proceeds may vary significantly depending on numerous factors, including the progress of our preclinical studies and clinical trials, pre-commercialization efforts and other product development activities. In addition, expenditures may also depend on the establishment of new collaborative arrangements with other partners, the availability of other financing and other factors. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Pending the use of proceeds described above, we intend to invest the net proceeds in treasury bills, corporate bonds, commercial paper, term deposits, bankers acceptances or deposit-based investments including, but not limited to, interest savings accounts. The goal with respect to the investment of these net proceeds is capital preservation and liquidity so that such funds are readily available to fund our operations.

We anticipate that we will be required to raise substantial additional capital to continue to fund the clinical development of our product candidates. If we are able to gain marketing approval for product candidates that we develop, we will require significant additional amounts of capital in order to launch and commercialize such product candidates to the extent that such launch and commercialization are not the responsibility of a collaborator. We expect to finance our future cash needs through public or private equity offerings, debt financings, royalty-based financing, collaborations, licensing arrangements or other sources, or any combination of the foregoing.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the offering price per share of our common stock you will pay in this offering and the as adjusted net tangible book value per share of our common stock immediately after this offering. Net tangible book value per share of common stock represents our total tangible assets less total liabilities, divided by the number of shares of common stock outstanding.

As of September 30, 2025, our historical net tangible book value was \$58.7 million, or \$1.25 per share of common stock. Historical net tangible book value per share represents historical net tangible book value divided by the 46,880,185 shares of our common stock outstanding as of September 30, 2025. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the issuance and sale of 5,000,000 shares of our common stock that we are offering at the offering price of \$6.00 per share, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2025 would have been approximately \$86.7 million, or approximately \$1.67 per share. This represents an immediate increase in the as adjusted net tangible book value of \$0.42 per share to existing stockholders and an immediate dilution of \$4.33 per share to new investors in this offering. Dilution per share to new investors is determined by subtracting as adjusted net tangible book value per share after this offering from the offering price per share paid by new investors. The following table illustrates this per share dilution.

Offering price per share	\$	6.00
Historical net tangible book value per share as of September 30, 2025	\$	1.25
Increase in net tangible book value per share attributable to this offering		0.42
As adjusted net tangible book value per share after giving effect to this offering		1.67
Dilution per share to new investors participating in this offering	\$	4.33

The table and discussion above are based on 46,880,185 shares of our common stock outstanding as of September 30, 2025, which number excludes:

- 2,885,206 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2025, at a weighted average exercise price of \$6.52 per share;
- 32,721,172 shares of common stock (or, for certain investors, pre-funded warrants in lieu of common stock), which may be issuable upon the occurrence or waiver by investors of certain pre-specified milestones in connection with the second closing of a private placement described in the Securities Purchase Agreement;
- 1,818,223 shares of common stock reserved for future issuance under our 2024 Equity Incentive Plan as of September 30, 2025;
- 415,913 shares of common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan as of September 30, 2025;
- 142 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2025, at a weighted-average exercise price equal to \$11.21 per share; and
- 6,003,758 shares of our common stock issuable upon the exercise of pre-funded warrants outstanding as of September 30, 2025, at an exercise price equal to \$0.0001 per share.

To the extent that outstanding stock options are exercised, outstanding warrants are exercised, outstanding pre-funded warrants are exercised, new stock options are issued, or we issue additional shares of common stock in the

future, including pursuant to our Sales Agreement with Leerink Partners LLC, there will be further dilution to investors purchasing shares of common stock in this offering.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR INVESTORS IN COMMON STOCK

The following discussion is a summary of the material U.S. federal income tax consequences to U.S. Holders and Non-U.S. Holders (each, as defined below, and together, “Holders”) of the purchase, ownership, and disposition of our common stock but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local, or non-U.S. tax laws are not discussed. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended (the “Code”), Treasury regulations (including temporary Treasury regulations) promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the “IRS”), in each case as in effect as of the date hereof.

These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Holder. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance that the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership, and disposition of our common stock.

This discussion is limited to Holders that hold our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Holder’s particular circumstances, including the impact of the Medicare contribution tax on net investment income and the U.S. federal alternative minimum tax. In addition, it does not address consequences relevant to Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons holding our common stock as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers, or traders in common stock;
- “controlled foreign corporations,” (including “specified foreign corporations”), “passive foreign investment companies,” and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- other pass-through entities such as partnerships, S corporations, disregarded entities for federal income tax purposes and limited liability companies that are treated as a pass-through entities for U.S. federal income tax purposes (and investors therein);
- real estate investment trusts or regulated investment companies;
- persons for whom our stock constitutes “qualified small business stock” within the meaning of Section 1202 of the Code or as “Section 1244 stock” for purposes of Section 1244 of the Code;
- persons required for U.S. federal income tax purposes to conform the timing of income accruals to their financial statements under Section 451(b) of the Code;
- foreign governments, integral parts or controlled entities of foreign sovereigns, and international organizations;
- tax-exempt organizations (including private foundations) or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;

- persons that own, or are deemed to constructively own, more than 5% of our common stock (by vote or value), except to the extent specifically set forth below;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to the stock being taken into account in an “applicable financial statement” (as defined in the Code);
- tax-qualified retirement plans;
- pension plans, including “qualified foreign pension funds” as defined in Section 897(l)(2) of the Code and entities, all of the interests of which are held by qualified foreign pension funds; and
- persons whose functional currency for U.S. tax purposes is not the U.S. dollar.

Such investors are urged to consult their own tax advisors to determine the U.S. federal, state and local and other tax consequences that may be relevant to them.

If a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership, and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

PERSONS CONSIDERING THE PURCHASE OF OUR COMMON STOCK PURSUANT TO THIS OFFERING SHOULD NOTE THAT THE FOLLOWING DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT CONSTITUTE TAX ADVICE. SUCH PERSONS SHOULD CONSULT THEIR OWN TAX ADVISORS CONCERNING THE U.S. FEDERAL INCOME TAX CONSEQUENCES OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK IN LIGHT OF THEIR PARTICULAR SITUATIONS, AS WELL AS ANY CONSEQUENCES ARISING UNDER THE LAWS OF ANY OTHER TAXING JURISDICTION, INCLUDING ANY STATE, LOCAL OR NON-U.S. TAX CONSEQUENCES, ANY U.S. FEDERAL NON-INCOME TAX CONSEQUENCES (INCLUDING U.S. FEDERAL ESTATE OR GIFT TAX CONSEQUENCES), AND THE POSSIBLE APPLICATION OF TAX TREATIES.

Definitions of U.S. Holder and Non-U.S. Holder

For purposes of this discussion, a “U.S. Holder” means a beneficial owner of our common stock, other than a partnership or other pass-through entity, that is, for U.S. federal income tax purposes, (a) an individual who is a citizen or resident of the United States, (b) a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes), created or organized in or under the laws of the United States, any state thereof, or the District of Columbia, (c) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (d) a trust if it (1) is subject to the primary supervision of a court within the United States and one or more “United States persons” (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of the trust or (2) has a valid election in effect to be treated as a United States person for U.S. federal income tax purposes.

For purposes of this discussion, a “Non-U.S. Holder” is any beneficial owner of our common stock that is neither a U.S. Holder nor an entity or arrangement treated as a partnership for U.S. federal income tax purposes.

Tax Consequences to U.S. Holders

Distributions with Respect to Common Stock

We do not currently expect to make distributions with respect to our common stock. If we make a distribution of cash or property with respect to our common stock, any such distribution generally will constitute a dividend for U.S. federal income tax purposes to the extent of our current and accumulated earnings and profits, if any, as

determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will constitute a return of capital and will first reduce the U.S. Holder's adjusted tax basis in our common stock, but not below zero. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "—Sale or Other Disposition of Common Stock." Any such distributions will also be subject to the discussions below in "—Information Reporting and Backup Withholding."

Sale or Other Disposition of Common Stock

For U.S. federal income tax purposes, gain or loss realized on the sale or other disposition of common stock will be capital gain or loss and will be long-term capital gain or loss if you have held the common stock for more than one year; otherwise, such gain or loss will be short-term. Long-term capital gains recognized by non-corporate U.S. Holders are eligible for reduced U.S. federal income tax rates. The amount of gain or loss will equal the difference between the adjusted tax basis in the common stock disposed of and the amount realized on such disposition. The deductibility of capital losses is subject to limitations under the Code.

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to any payments of dividends (including constructive dividends) on our common stock and gross proceeds on the sale or other taxable disposition of our common stock by a U.S. Holder unless such U.S. Holder is an exempt recipient, such as a corporation. Backup withholding will apply to such payments if (a) the U.S. Holder fails to provide its correct taxpayer identification number or certification of exempt status, (b) the IRS notifies us that the U.S. Holder has provided an incorrect taxpayer identification number, (c) the IRS notifies the U.S. Holder that it has failed to report all its interest and dividend income on its tax return, or (d) the U.S. Holder fails to certify that it is not subject to backup withholding. Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a U.S. Holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Tax Consequences to Non-U.S. Holders

Distributions with Respect to Common Stock

We do not currently expect to make distributions with respect to our common stock. If we make a distribution of cash or property with respect to our common stock, any such distribution generally will constitute a dividend for U.S. federal income tax purposes to the extent of our current and accumulated earnings and profits, if any, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will constitute a return of capital and will first reduce the Non-U.S. Holder's adjusted tax basis in our common stock, but not below zero. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "—Sale or Other Disposition of Common Stock." Any such distribution would also be subject to the discussion below under the section titled "—Additional Withholding and Reporting Requirements."

Dividends paid to a Non-U.S. Holder generally will be subject to a 30% U.S. federal withholding tax unless such Non-U.S. Holder provides us or our agent, as the case may be, with the appropriate IRS Form W-8, such as:

- IRS Form W-8BEN or W-8BEN-E (or successor form) certifying, under penalties of perjury, a reduction in withholding under an applicable income tax treaty, or
- IRS Form W-8ECI (or successor form) certifying that a dividend paid on our common stock is not subject to withholding tax because it is effectively connected with a trade or business in the United States of the Non-U.S. Holder (in which case such dividend generally will be subject to regular graduated U.S. tax rates as described below).

The certification requirement described above must be provided to us or our agent, as applicable, prior to the payment of dividends and must be updated periodically. The certification also may require a Non-U.S. Holder that provides an IRS form or that claims treaty benefits to provide its U.S. taxpayer identification number. Special

certification and other requirements apply in the case of certain Non-U.S. Holders that hold shares of our common stock through intermediaries or are pass-through entities for U.S. federal income tax purposes.

Each Non-U.S. Holder is urged to consult its own tax advisor about the specific methods for satisfying these requirements. A claim for exemption will not be valid if the person receiving the applicable form has actual knowledge or reason to know that the statements on the form are false.

If dividends are effectively connected with a trade or business in the United States of a Non-U.S. Holder (and, if required by an applicable income tax treaty, are attributable to a permanent establishment maintained by such Non-U.S. Holder in the United States), the Non-U.S. Holder, although exempt from the withholding tax described above (provided that the certifications described above are satisfied), generally will be subject to U.S. federal income tax on such dividends on a net income basis in the same manner as if it were a resident of the United States. In addition, if a Non-U.S. Holder is treated as a corporation for U.S. federal income tax purposes, the Non-U.S. Holder may be subject to an additional “branch profits tax” equal to 30% (unless reduced by an applicable income tax treaty, if any) of its earnings and profits in respect of such effectively connected dividend income.

Non-U.S. Holders that do not timely provide us or our agent with the required certification, but which are eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty, may obtain a refund or credit of any excess amount withheld by timely filing an appropriate claim for refund with the IRS.

See also the section below titled “—Additional Withholding and Reporting Requirements” for additional withholding rules that may apply to dividends paid to certain foreign financial institutions or non-financial foreign entities.

Sale or Other Disposition of Common Stock

Subject to the discussion below under the section titled “—Additional Withholding and Reporting Requirements,” in general, a Non-U.S. Holder will not be subject to U.S. federal income or withholding tax on gain realized upon sale, exchange or other taxable disposition of shares of our common stock unless (1) such Non-U.S. Holder is an individual who is present in the United States for 183 days or more in the taxable year of disposition, as calculated pursuant to Section 7701(b) of the Code, and certain other conditions are met, (2) we are or have been a “United States real property holding corporation,” as defined in the Code (a “USRPHC”), at any time within the shorter of the five-year period preceding the disposition and the Non-U.S. Holder’s holding period in our common stock, and certain other requirements are met, or (3) such gain is effectively connected with the conduct by such Non-U.S. Holder of a trade or business in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment maintained by such Non-U.S. Holder in the United States).

If the first exception applies, the Non-U.S. Holder generally will be subject to U.S. federal income tax at a rate of 30% (or at a reduced rate under an applicable income tax treaty, if any) on the amount by which such Non-U.S. Holder’s capital gains allocable to U.S. sources exceed capital losses allocable to U.S. sources during the taxable year of the disposition. If the third exception applies, the Non-U.S. Holder generally will be subject to U.S. federal income tax with respect to such gain on a net income basis in the same manner as if it were a resident of the United States and a Non-U.S. Holder that is a corporation for U.S. federal income tax purposes may also be subject to a branch profits tax with respect to any earnings and profits attributable to such gain at a rate of 30% (or at a reduced rate under an applicable income tax treaty, if any).

With respect to the second exception, generally, a corporation is a USRPHC only if the fair market value of its U.S. real property interests (as defined in the Code) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not, and do not anticipate becoming, a USRPHC. However, since the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we became a USRPHC, a Non-U.S. Holder would not be subject to U.S. federal income tax on a sale, exchange or other taxable disposition of our common stock by reason of our status as a USRPHC so long as our securities are regularly traded on an established securities market at any time during the calendar year in which the disposition occurs and such Non-U.S. Holder does not own and is not deemed

to own (directly, indirectly or constructively) more than 5% of our common stock at any time during the shorter of the five-year period ending on the date of disposition and the Non-U.S. Holder's holding period.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each Non-U.S. Holder the gross amount of the distributions (including constructive distributions) paid to the Non-U.S. Holder with respect to our common stock and the tax withheld, if any, with respect to such distributions. Non-U.S. Holders may have to comply with specific certification procedures (such as the provision of a properly completed IRS Form W-8BEN or W-8BEN-E) to establish that the Non-U.S. Holder is not a United States person (as defined in the Code) to avoid backup withholding at the applicable rate, currently 24%, with respect to dividends on our common stock. Dividends paid to Non-U.S. Holders subject to U.S. withholding tax, as described above under the section titled “—Distributions with Respect to Common Stock,” generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a Non-U.S. Holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the Non-U.S. Holder certifies its status as a Non-U.S. Holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Prospective investors should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them, including the availability of and procedure for obtaining an exemption from backup withholding.

Copies of information returns may be made available to the tax authorities of the country in which the Non-U.S. Holder resides or, in which the Non-U.S. Holder is incorporated, under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-U.S. Holder can be refunded or credited against the Non-U.S. Holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

Additional Withholding and Reporting Requirements

Sections 1471 through 1474 of the Code, and related Treasury regulations, together with other Treasury Department and IRS guidance issued thereunder, and intergovernmental agreements, legislation, rules and other official guidance adopted pursuant to such intergovernmental agreements, commonly referred to as FATCA, impose a U.S. federal withholding tax of 30% on certain payments, including dividends paid on our common stock, paid to (1) a “foreign financial institution” (as defined under FATCA) unless such institution furnishes proper documentation, typically on IRS Form W-8BEN-E, evidencing either (i) an exemption from FATCA withholding, (ii) its compliance (or deemed compliance) with specified due diligence, reporting, withholding and certification obligations under FATCA or (iii) residence in a jurisdiction that has entered into an intergovernmental agreement with the United States relating to FATCA and compliance with the diligence and reporting requirements of the intergovernmental agreement and local implementing rules; or (2) a “non-financial foreign entity” (as defined under FATCA) that does not furnish proper documentation, typically on IRS Form W-8BEN-E, evidencing either (i) an exemption from FATCA or (ii) adequate information regarding substantial U.S. beneficial owners of such entity (if any). An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements.

The IRS and the U.S. Department of the Treasury have issued proposed regulations on which taxpayers may rely providing that these withholding rules will not apply to the gross proceeds of a sale or other disposition of shares of our common stock. Prospective investors should consult their own tax advisors regarding the effect of FATCA on their ownership and disposition of our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAW, AS WELL AS TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, NON-U.S. OR U.S. FEDERAL NON-INCOME TAX LAWS SUCH AS ESTATE AND GIFT TAX.

UNDERWRITING

We are offering the shares of common stock described in this prospectus supplement through Leerink Partners LLC, acting as the sole underwriter. We have entered into an underwriting agreement with the underwriter. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriter, and the underwriter has agreed to purchase from us, at the offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, 5,000,000 shares of common stock.

The underwriter is committed to purchase all the shares of common stock offered by us if it purchases any shares of common stock.

The underwriter proposes to offer the shares of common stock at the offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$0.216 per share of common stock. After the offering of the shares of common stock, if all of the shares of common stock are not sold at the offering price, the underwriter may change the offering price and the other selling terms. Sales of any shares of common stock made outside of the United States may be made by affiliates of the underwriter.

We have agreed to indemnify the underwriter against certain liabilities, including liabilities under the Securities Act.

Commissions and Expenses

The underwriter has advised us that it proposes to offer the shares of common stock to the purchasers at the offering price set forth on the cover page of this prospectus supplement. After the offering, the offering price may be reduced by the underwriter. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement.

The following table shows the offering price, the underwriting discounts and commissions that we are to pay the underwriter and the proceeds, before expenses, to us in connection with this offering.

	Per Share	Total
Offering price	\$ 6.00	\$ 30,000,000
Underwriting discounts and commissions	\$ 0.36	\$ 1,800,000
Proceeds to CAMP4 Therapeutics Corporation, before expenses	\$ 5.64	\$ 28,200,000

We estimate that the total expenses of this offering, including listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$200,000. We also have agreed to reimburse the underwriter for up to \$10,000 for its FINRA counsel fee. In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering. The underwriter has also agreed to reimburse us for certain expenses in connection with the offering.

Electronic Distribution

A prospectus supplement and accompanying prospectus in electronic format may be made available on the web sites maintained by the underwriter, or selling group members, if any, participating in the offering. The underwriter may agree to allocate a number of shares to the underwriter and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriter and selling group members that may make Internet distributions on the same basis as other allocations.

No Sales of Similar Securities

We have agreed that we will not (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, or submit to, or file with, the Securities and Exchange Commission (the "SEC"), a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible

into or exercisable or exchangeable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, loan, disposition or filing, or (ii) enter into any hedging, swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any shares of common stock or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), without the prior written consent of Leerink Partners LLC for a period of 60 days after the date of this prospectus, other than the shares of our common stock to be sold in this offering.

The restrictions described above do not apply to: (i) the issuance of shares of common stock or securities convertible into or exercisable for shares of our common stock pursuant to the conversion or exchange of convertible or exchangeable securities or the exercise of warrants or options (including net exercise) or the settlement of RSUs (including net settlement), in each case outstanding on the date of the underwriting agreement and described in this prospectus; (ii) grants of stock options, stock awards, restricted stock, RSUs, or other equity awards and the issuance of shares of our common stock or securities convertible into or exercisable or exchangeable for shares of our common stock (whether upon the exercise of stock options or otherwise) to our employees, officers, directors, advisors, or consultants pursuant to the terms of an equity compensation plan in effect as of the closing of this offering and described in this prospectus, provided that such recipients enter into a lock-up agreement with the underwriters; (iii) the issuance of up to 5% of the shares of our common stock, or securities convertible into, exercisable for, or which are otherwise exchangeable for, our common stock, outstanding immediately following the closing of this offering, in acquisitions or other similar strategic transactions, provided that such recipients enter into a lock-up agreement with the underwriters; (iv) our filing of any registration statement on Form S-8 relating to securities granted or to be granted pursuant to any plan in effect on the date of the underwriting agreement and described in this prospectus or any assumed benefit plan pursuant to an acquisition or similar strategic transaction; or (v) sales of our common stock pursuant to our Sales Agreement with Leerink Partners LLC, provided in the case of this clause (v), no such sales are made until after 30 days following the date of this prospectus supplement.

Our directors and executive officers, and certain of our shareholders (such persons, the “lock-up parties”) have entered into lock-up agreements with the underwriter pursuant to which each lock-up party, with limited exceptions, for a period of 60 days after the date of this prospectus supplement (such period, the “restricted period”), may not (and may not cause any of their direct or indirect affiliates to), without the prior written consent of Leerink Partners LLC, (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such lock-up parties in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant (collectively with the common stock, the “lock-up securities”)), (2) enter into any hedging, swap or other agreement or transaction that transfers, in whole or in part, any of the economic consequences of ownership of the lock-up securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of lock-up securities, in cash or otherwise, (3) make any demand for, or exercise any right with respect to, the registration of any lock-up securities, or (4) publicly disclose the intention to do any of the foregoing. Such persons or entities have further acknowledged that these undertakings preclude them from engaging, during the restricted period, in any hedging or other transactions or arrangements (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) designed or intended, or which could reasonably be expected to lead to or result in, a sale or disposition or transfer (whether by the lock-up party or by any other person) of any economic consequences of ownership, in whole or in part, directly or indirectly, of any lock-up securities, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of lock-up securities, in cash or otherwise.

The restrictions described in the immediately preceding paragraph and contained in the lock-up agreements between the underwriters and the lock-up parties do not apply, subject in certain cases to various conditions, to certain transactions, including (a) transfers of lock-up securities: (i) as a bona fide gift or gifts, or for bona fide estate planning purposes, or as a charitable contribution; (ii) by will, other testamentary document or intestacy; (iii) to any

immediate family member of the lock-up party or any trust for the direct or indirect benefit of the lock-up party or any immediate family member, or if the lock-up party is a trust, to a trust or, trustee (or co-trustee) or beneficiary of the trust or to the estate of a beneficiary of the trust; (iv) to a corporation, partnership, limited liability company or other entity of which the lock-up party and/or its immediate family members are the legal and beneficial owner of all of the outstanding equity securities or similar interests; (v) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (i) through (iv); (vi) in the case of a corporation, partnership, limited liability company, trust or other business entity, (A) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate (as defined in Rule 405 promulgated under the Securities Act of 1933) of the lock-up party, or to any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the lock-up party or its affiliates (including, for the avoidance of doubt, where the lock-up party is a partnership, to its general partner or a successor partnership or fund, or any other funds managed by such general partnership, partnership or fund) or (B) as part of a distribution, transfer or disposition without consideration to direct or indirect members, retired members, shareholders, partners, former partners, beneficiaries or other equity holders of the lock-up party; (vii) by operation of law or pursuant to an order of a court or regulatory agency (including a qualified domestic order, divorce settlement, divorce decree or separation agreement); (viii) to us from an employee or other service provider of ours upon death, disability or termination of employment or service relationship, in each case, of such employee or service provider, including without limitation, pursuant to a right of first refusal or an option to repurchase that we have with respect to transfers of such lock-up securities or other securities of ours; (ix) as part of a sale or transfer of lock-up securities acquired in this offering or in open market transactions after the completion of this offering; (x) to us in connection with the vesting, settlement or exercise of restricted stock units, options, warrants or other rights to purchase shares of our common stock (including, in each case, and without limitation, by way of “net” or “cashless” exercise), including, without limitation, for the payment of exercise price and tax and remittance payments due as a result of the vesting, settlement, or exercise of such restricted stock units, options, warrants or rights; or (xi) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction approved by our board of directors and made to all shareholders involving a change in control, provided that if such transaction is not completed, all such lock-up securities would remain subject to the restrictions in the immediately preceding paragraph; (b) exercise of outstanding options, settlement of restricted stock units or other equity awards, or exercise of warrants pursuant to plans or other equity compensation arrangements described in this prospectus, provided that any lock-up securities received upon such exercise, vesting or settlement would be subject to restrictions similar to those in the immediately preceding paragraph; (c) conversion of outstanding preferred stock, warrants to acquire preferred stock, or convertible securities into shares of our common stock or warrants to acquire shares of our common stock, provided that any common stock or warrant received upon such conversion would be subject to restrictions similar to those in the immediately preceding paragraph; and (d) the establishment or modification of trading plans under Rule 10b5-1 under the Exchange Act for the transfer of lock-up securities, provided that (1) such plans do not provide for the transfer of lock-up securities during the restricted period and (2) any public announcement or filing under the Exchange Act regarding such plan includes the restrictions set forth in the immediately preceding paragraph.

Leerink Partners LLC, in its sole discretion, may release the securities subject to any of the lock-up agreements with the underwriter described above, in whole or in part at any time.

Listing

Our common stock is listed on the Nasdaq Global Market under the symbol “CAMP.”

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of our common stock is completed, SEC rules may limit the underwriter and selling group members from bidding for and purchasing our common stock. However, the underwriter may engage in transactions that stabilize the price of our common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with this offering, the underwriter may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriter of a greater number of shares than it is

required to purchase in this offering. Because we have not granted the underwriter an option to purchase additional shares, the underwriter must close out any short position by purchasing shares in the open market. Stabilizing transactions consist of various bids for or purchases of our common stock made by the underwriter in the open market prior to the closing of this offering.

The underwriter may also impose a penalty bid. This occurs when the underwriter repays a portion of the underwriting discount received by it because the underwriter has repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriter's purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriter may conduct these transactions on the Nasdaq Global Market, in the over-the-counter market or otherwise.

Neither we nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor the underwriter make any representation that the underwriter will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Other Activities and Relationships

The underwriter and its affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, the underwriter and its affiliates may effect transactions for its own account or the account of customers, and hold on behalf of itself or its customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Selling Restrictions

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area (each, a "Relevant State"), no securities have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that securities may be offered to the public in that Relevant State at any time:

- A. to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;
- B. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- C. in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of securities shall require us or any of the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to any securities in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129, as amended.

Notice to Prospective Investors in the United Kingdom

No securities have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the common stock which has been approved by the Financial Conduct Authority, except that the securities may be offered to the public in the United Kingdom at any time:

- A. to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- B. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- C. in any other circumstances falling within Section 86 of the Financial Services and Markets Act 2000 (the “FSMA”),

provided that no such offer of the securities shall require us or any representative to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an “offer to the public” in relation to the securities in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

Notice to Prospective Investors in the Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority (“DFSA”). This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The securities to which this prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

Notice to Prospective Investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the “Corporations Act”) and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the securities may only be made to persons (the “Exempt Investors”) who are “sophisticated investors” (within the meaning of section 708(8) of the Corporations Act), “professional investors” (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the securities without disclosure to investors under Chapter 6D of the Corporations Act.

The securities applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring securities must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information

in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to Prospective Investors in Hong Kong

The securities have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the securities has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Notice to Prospective Investors in Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) and, accordingly, will not be offered or sold, directly or indirectly, in Japan, or for the benefit of any Japanese Person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese Person, except in compliance with all applicable laws, regulations and ministerial guidelines promulgated by relevant Japanese governmental or regulatory authorities in effect at the relevant time. For the purposes of this paragraph, “Japanese Person” shall mean any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the securities were not offered or sold or caused to be made the subject of an invitation for subscription or purchase and will not be offered or sold or caused to be made the subject of an invitation for subscription or purchase, and this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities, has not been circulated or distributed, nor will it be circulated or distributed, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries’ rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the securities pursuant to an offer made under Section 275 of the SFA except:

- (a) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (b) where no consideration is or will be given for the transfer;
- (c) where the transfer is by operation of law; or
- (d) as specified in Section 276(7) of the SFA.

Notice to Prospective Investors in Canada

The securities may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriter is not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. Leerink Partners LLC is being represented in connection with this offering by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts.

EXPERTS

The consolidated financial statements of CAMP4 Therapeutics Corporation appearing in CAMP4 Therapeutics Corporation's Annual Report (Form 10-K) for the year ended December 31, 2024, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon (which includes an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern described in Note 1 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at <http://www.camp4tx.com>. Our website is not a part of this prospectus supplement and information contained on, or that can be accessed through our website, is not incorporated by reference in this prospectus supplement and the accompanying base prospectus.

This prospectus supplement is part of a registration statement we filed with the SEC. This prospectus supplement omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and our consolidated subsidiary and the shares of common stock we are offering. Statements in this prospectus supplement and the accompanying base prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings and the exhibits attached thereto. You should review the complete document to evaluate these statements. You can obtain a copy of the registration statement from the SEC's website.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus supplement and the accompanying base prospectus the information we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information in documents that we file later with the SEC will automatically update and supersede information in this prospectus. We incorporate by reference into this prospectus supplement and the accompanying base prospectus the documents listed below and any future filings, including all filings made after the date of the filing of this prospectus, made by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, except for information “furnished” under Items 2.02, 7.01 or 9.01 on Form 8-K or other information “furnished” to the SEC which is not deemed filed and not incorporated in this prospectus, until the termination of the offering of securities described in the applicable prospectus supplement. We hereby incorporate by reference the following documents:

- our Annual Report on Form 10-K for the year ended December 31, 2024, as filed with the SEC on [March 27, 2025](#);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, as filed with the SEC on [May 13, 2025](#), June 30, 2025, as filed with the SEC on [August 14, 2025](#), and September 30, 2025, as filed with the SEC on [November 6, 2025](#);
- our Current Reports on Form 8-K as filed with the SEC on [January 7, 2025](#), [March 18, 2025](#), [June 13, 2025](#), [September 10, 2025](#) and [December 18, 2025](#);
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2024 from our Definitive Proxy Statement on Schedule 14A for the 2025 Annual Meeting of Stockholders, as filed with the SEC on [April 30, 2025](#); and
- the description of our common stock, which is contained in the Registration Statement on Form 8-A, as filed with the SEC on [October 8, 2024](#), as supplemented by the description of our common stock and preferred stock contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on [March 27, 2025](#).

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

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

CAMP4 Therapeutics Corporation
One Kendall Square
Building 1400 West, 3rd Floor
Cambridge, Massachusetts 02139
(617) 651-8867
Attention: Corporate Secretary

Copies of these filings are also available, without charge, on the SEC’s website at www.sec.gov and on our website at www.camp4tx.com as soon as reasonably practicable after they are filed electronically with the SEC. The information contained on our website is not a part of this prospectus.

\$300,000,000
CAMP4 THERAPEUTICS CORPORATION
Common Stock
Preferred Stock
Warrants
Debt Securities

We may offer and sell from time to time, in one or more series or issuances and in an amount and on terms that we will determine at the time of the respective offering, any combination, up to \$300,000,000 in the aggregate, of the securities described in this prospectus.

We will provide specific terms of any offering in a supplement to this prospectus. We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. Any prospectus supplement may also add, update, or change information contained in this prospectus. You should carefully read this prospectus and any amendments or prospectus supplements as well as the documents incorporated or deemed to be incorporated by reference in this prospectus before you purchase any of the securities offered hereby.

These securities may be offered and sold in the same offering or in separate offerings; to or through underwriters, dealers, and agents; or directly to purchasers. The names of any underwriters, dealers, or agents involved in the sale of our securities and their compensation will be described in the applicable prospectus supplement.

Our common stock is listed on The Nasdaq Global Market under the symbol "CAMP." On November 7, 2025, the last reported sale price of our common stock par value \$0.0001 per share was \$4.25 per share.

Investing in our securities involves a high degree of risk. Before making an investment decision, please read the information under the heading. See "[Risk Factors](#)" on page 6 of this prospectus, in any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Prospectus dated December 1, 2025

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”), under the Securities Act of 1933, as amended (the “Securities Act”), using a “shelf” registration process. Under this shelf registration process, we may from time to time offer to sell any combination of the securities described in this prospectus in one or more offerings for an aggregate offering amount of up to \$300,000,000. Each time we sell securities under this prospectus, we will provide a prospectus supplement and, if necessary, a free writing prospectus, that will contain specific information about the terms of that offering. The prospectus supplement and, if necessary, a free writing prospectus, may also add to, update or change information contained in this prospectus. Accordingly, to the extent inconsistent, the information in this prospectus will be deemed to be modified or superseded by any inconsistent information contained in a prospectus supplement or a free writing prospectus. You should read this prospectus and the applicable prospectus supplement and any free writing prospectus carefully, including all documents incorporated herein and therein by reference, together with the additional information described below under “Where You Can Find More Information” before making an investment in our securities.

This prospectus does not include all of the information that is in the registration statement. We omitted certain parts of the registration statement from this prospectus as permitted by the SEC. We refer you to the registration statement and its exhibits for additional information about us and the securities that may be sold under this prospectus.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or any free writing prospectus provided in connection with an offering. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and any accompanying prospectus supplement, if any, is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under “Where You Can Find More Information.”

References in this prospectus to “CAMP4,” the “Company,” “we,” “us,” “our” or similar terms refer to CAMP4 Therapeutics Corporation and our subsidiary on a consolidated basis, as appropriate, unless we state otherwise or the context otherwise requires. The phrase “this prospectus” refers to this prospectus and any applicable prospectus supplement, unless the context otherwise requires.

Trademarks and Tradenames

“CAMP4,” “RAP Platform,” “RNA Actuator” and our other registered or common law trademarks, trade names or service marks appearing in this prospectus are the property of CAMP4 Therapeutics Corporation and are registered as trademarks in the United States and other countries. This prospectus and the other documents incorporated by reference herein contain references to our trademarks and to trademarks belonging to other entities. Each of the other trademarks, trade names and service marks included in this prospectus belongs to its respective holder. Solely for convenience, trademarks, trade names and service marks referred to in this prospectus, including

logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to those trademarks, trade names and service marks. We do not intend our use or display of other entities' trade names, trademarks or service marks to imply a relationship with, or our endorsement or sponsorship by, any other entity.

ABOUT THE COMPANY

Company Information

We are a clinical-stage biopharmaceutical company pioneering the discovery and development of a new class of RNA-targeting therapeutics with the goal of upregulating gene expression and restoring healthy protein levels to treat a broad range of genetic diseases. Regulatory RNAs (“regRNAs”) play a central role in the regulation of every protein-coding gene by contributing to gene activation and suppression. Our approach is designed to amplify messenger RNA (“mRNA”) expression by harnessing the power of regRNAs that form localized complexes with transcription factors and regulate gene expression. Our proprietary RNA Actuating Platform (“RAP Platform”) allows us to rapidly and systematically identify and characterize the active regulatory elements controlling every expressed gene and tens of thousands of druggable enhancer and promoter regRNA sequences that control protein-coding genes. Once a disease-associated target gene is identified, we apply our RAP Platform to identify the controlling regRNA and rapidly generate novel antisense oligonucleotide (“ASO”) candidates, which we refer to as RNA Actuators. These ASOs are designed to bind to the identified regRNA and amplify the expression of the target gene in a specific and controllable way. We are primarily focused on diseases of the central nervous system with validated disease biology, and we believe our RAP Platform allows us to address a broad range of rare and prevalent genetic diseases in which a modest increase in protein expression has the potential to be clinically meaningful.

We are leveraging our RAP Platform to advance a preclinical program for the treatment of synaptic Ras GTPase activating protein 1 (“SYNGAP1”)–related disorders, a group of neurodevelopmental conditions caused by pathogenic variants in the SYNGAP1 gene that result in a haploinsufficient state, reducing SYNGAP protein levels by up to 50%. SYNGAP plays a critical role in cognitive development and synaptic function. Epilepsy is a common characteristic of these disorders and nearly all patients experience some degree of developmental delay and cognitive impairment. Incidence estimates vary significantly, ranging from one to 40 per 100,000 individuals. While we believe that SYNGAP1-related disorders remain underdiagnosed, we estimate that there are more than 10,000 individuals living with these disorders in the United States. SYNGAP1-related disorders are reported to represent 0.5% to 1.0% of all intellectual disability cases, making them among the most common causes of intellectual disability in patients with epilepsy, and indicating that the patient population may be significantly larger than incidence estimates suggest. There are no FDA-approved, disease-modifying therapies for SYNGAP1-related disorders. Treatment is often limited to supportive physical, occupational and speech therapy. A combination of non-specific anti-seizure medications may be prescribed, though SYNGAP1-related disorders have proven difficult to control with available therapeutics. Up to 50% of patients do not adequately respond to medication, in which case implantable devices, such as those for vagus nerve stimulation, may offer incremental therapeutic benefit. We are advancing our SYNGAP program to address the significant unmet need by targeting the direct cause of SYNGAP1-related disorders, haploinsufficiency, which we believe is amenable to targeting through regRNAs. Our novel approach targets the SYNGAP1 gene at the transcriptional level to restore SYNGAP function and improve symptoms by utilizing an intrathecally delivered ASO. Upregulation of SYNGAP1 gene expression may increase SYNGAP protein levels in amounts sufficient to yield therapeutic benefit. Our preclinical studies demonstrated a dose-dependent increase in SYNGAP mRNA levels accompanied by an increase in SYNGAP protein expression. On May 16, 2025, we presented preclinical data from our SYNGAP program in an oral presentation at the 28th American Society of Gene and Cell Therapy Annual Meeting. We observed that intracerebroventricular injection of our lead development candidate, CMP-002 (formerly known as CMP-SYNGAP-01), restored SYNGAP protein levels to near normal range in haploinsufficient mice carrying a single copy of the human SYNGAP1 gene after a single dose and rescued motor defects and spatial learning defects following two doses. Additionally, we observed that biweekly intrathecal injections of CMP-002 were well tolerated in cynomolgus monkeys and resulted in a significant increase in SYNGAP protein levels across multiple brain regions clinically relevant to the disease, with dose-linear increases of CMP-002 in disease-relevant brain regions. We have initiated GLP toxicology studies for CMP-002 to enable the filing of a clinical trial application. Pending successful completion of GLP toxicology studies and regulatory clearance, we intend to initiate a global Phase 1/2 clinical trial in individuals with SYNGAP1-related disorders as early as the second half of 2026.

Our pipeline also includes our clinical candidate, CMP-001 (formerly known as CMP-CPS-001), for the treatment of the most prevalent urea cycle disorders (“UCDs”), for which we have completed a Phase 1 clinical trial in healthy volunteers. UCDs are a group of severe, inherited metabolic diseases caused by mutations in the genes

that encode one or more of the eight enzymes and transporters necessary to convert ammonia into urea. The inability of the body to properly metabolize ammonia leads to the accumulation of toxic levels in circulation, ultimately resulting in severe health outcomes, such as neurologic disability, seizure and death. CMP-001 is designed to improve urea cycle activity by amplifying expression of carbamoyl phosphate synthetase 1 (“CPS1”), an enzyme that catalyzes the first step of the urea cycle, by binding to a CPS1-specific regRNA. Our preclinical studies have demonstrated that modulating the activity of the target regRNA increases expression of the CPS1 gene, resulting in increased CPS1 enzyme levels, which allows for more ammonia to be converted into urea, thereby lowering ammonia levels to normal, healthy ranges. These preclinical studies also demonstrated that CMP-001 can increase the level of, or upregulate, the production of multiple enzymes responsible for converting ammonia into urea, potentially allowing us to address more than 85% of patients with UCDS. We have received approval of a clinical trial application in the Netherlands to enable the initiation of a Phase 1b expansion to enroll female participants who are heterozygous for a mutation of the OTC gene. We estimate that there are approximately 2,000 diagnosed female OTC heterozygotes in the United States who have inherited one copy of a gene with OTC-related changes and experience potentially addressable UCD symptoms.

We have completed the analysis of safety, pharmacokinetic, and pharmacodynamic biomarker data from all four cohorts of the single ascending dose (“SAD”) portion and from the three completed cohorts of the multiple ascending dose (“MAD”) portion of the clinical trial. In total, 86 healthy volunteer participants were observed, including 51 receiving CMP-001. CMP-001 demonstrated a favorable safety profile in both the SAD and MAD portions of the clinical trial, with no serious adverse events or discontinuations due to adverse events. Pharmacokinetic data similarly was observed to be consistent with expectations, demonstrating a dose-dependent increase in exposure (C_{max} and AUC) with clear separation between groups and low-to-moderate variability in key pharmacokinetic parameters at all dose levels. There were no conclusive determinations of pharmacodynamic activity or non-activity in this healthy volunteer population, which we believe may have resulted from intrinsic variability in the ureagenesis rates of healthy individuals measured with the investigational ¹³C-sodium acetate test used in the study. We have made the strategic decision to pause new investment in our UCD program and to prioritize the development of our SYNGAP program. We continue to believe that CMP-001 has the potential to be the first disease-modifying therapy for the most prevalent UCDS and intend to pursue partnership opportunities to support the further development of CMP-001.

Our principal executive offices are located at One Kendall Square, Building 1400 West, 3rd Floor, Cambridge, Massachusetts 02139 and our telephone number is (617) 651-8867. Our website address is www.camp4tx.com. The information contained on, or accessible through, our website is not incorporated by reference into this prospectus. We have included our website in this prospectus solely as an inactive textual reference, and investors should not rely on any such information in deciding whether to purchase our securities.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, as amended (the “JOBS Act”), and we may remain an emerging growth company until December 31, 2029 or until such earlier time that we are no longer an emerging growth company. For so long as we remain an emerging growth company, we are permitted and intend to rely on certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved and an exemption from compliance with the requirements regarding the communication of critical audit matters in the auditor’s report on financial statements.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have elected to avail ourselves of this extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we will adopt the new or revised standard at the time private companies adopt the new or revised standard and will do so until such time that we either (i) irrevocably elect to “opt out” of such extended transition period or (ii) no longer qualify as an emerging growth company. We may choose to early adopt

any new or revised accounting standards whenever such early adoption is permitted for private companies. As a result of this election, our financial statements may not be comparable to those of companies that are not emerging growth companies.

We will remain an emerging growth company until the earliest to occur of: (i) the last day of the fiscal year in which we have at least \$1.235 billion in annual revenue; (ii) the last day of the fiscal year in which we are deemed to be a “large accelerated filer,” as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which would occur if the market value of our common stock held by non-affiliates exceeded \$700.0 million as of the last business day of the second fiscal quarter of such year; (iii) the date on which we have issued more than \$1.0 billion in nonconvertible debt securities during the prior three-year period; and (iv) December 31, 2029.

We are also a “smaller reporting company,” as defined in the Exchange Act, meaning that the market value of our shares held by non-affiliates is less than \$700.0 million and our annual revenue was less than \$100.0 million during the most recently completed fiscal year. We may continue to be a smaller reporting company if either: (i) the market value of our shares held by non-affiliates is less than \$250.0 million; or (ii) our annual revenue was less than \$100.0 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than \$700.0 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

RISK FACTORS

Investing in our securities involves a high degree of risk. See “Item 1A. Risk Factors” in our most recent Annual Report on Form 10-K incorporated by reference in this prospectus and in any subsequent Quarterly Reports on Form 10-Q, as may be updated by subsequent annual, quarterly and other reports that are incorporated by reference into this prospectus and the “Risk Factors” section in the applicable prospectus supplement for a discussion of the factors you should carefully consider before deciding to purchase our securities. Before making a decision about investing in our securities, you should carefully consider these risks as well as other information we include or incorporate by reference into this prospectus and the applicable prospectus supplement. The risks and uncertainties we have described are not the only ones facing our Company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations, operating results and financial condition. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. The discussion of risks includes or refers to forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements discussed elsewhere in this prospectus.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus, any prospectus supplement, any free writing prospectus and the other documents we have filed with the SEC that are incorporated herein by reference, contain forward-looking statements that involve substantial risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. All statements other than statements of historical fact contained in this prospectus, including statements regarding our strategy, future operations, future financial position, prospects, plans, objectives of management and expected growth, are forward-looking statements. These statements are based on our current beliefs, expectations and assumptions regarding our intentions, beliefs or current expectations concerning, among other things, the future of our business, future plans and strategies, our operational results and other future conditions. Forward-looking statements 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.

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,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions intended to identify statements about the future, although not all forward-looking statements contain these identifying words. These forward-looking statements include, without limitation, statements about the following:

- the initiation, timing, progress, results and costs of our research and development programs and of our current and future preclinical studies and clinical trials of our product candidates, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, as well as the period during which the results of the trials are expected become available;
- the timing of our planned good laboratory practices toxicology studies and regulatory submissions, initiation of planned clinical trials and timing of expected clinical results for our current and future product candidates;
- the timing of any submissions of filings for regulatory approval of, and our ability to obtain and maintain regulatory approvals for, any product candidates we may develop;
- our ability to identify patients with the diseases treated by our product candidates, and to enroll patients in trials;
- our expectations regarding the size of the patient populations, market acceptance and opportunity for and clinical utility of our product candidates, if approved for commercial use;
- our reliance on third party manufacturing partners to comply with significant regulations with respect to manufacturing our products;
- our expectations regarding the scope of any approved indication for any product candidates we may develop;
- our ability to successfully commercialize our product candidates, if approved;
- our ability to leverage our RAP Platform to identify and develop future product candidates;
- our estimates of our expenses, ongoing losses, future revenue, capital requirements and our need for or ability to obtain additional funding before we can expect to generate any revenue from product sales;
- our ability to establish or maintain strategic collaborations or arrangements, including potential business development opportunities and potential licensing partnerships, and our ability to attract collaborators with development, regulatory and commercialization expertise;
- our ability to identify, recruit and retain key personnel;

- our reliance upon intellectual property licensed from third parties and our ability to obtain such licenses on commercially reasonable terms or at all;
- our ability to protect and enforce our intellectual property position for our product candidates, and the scope of such protection;
- our financial performance;
- the sufficiency of our existing cash and cash equivalents to fund our future operating expenses and capital expenditure requirements;
- our competitive position and the development of and projections relating to our competitors or our industry;
- our estimates regarding future expenses and needs for additional financing;
- the impact of laws and regulations;
- the effect of changes in international trade policies and general economic, industry, geopolitical and market conditions, such as uncertainties related to military conflict or war, tariffs (including tariffs that have been or may in the future be imposed by the United States or other countries), sanctions, trade protection measures or other trade barriers, inflation and financial institution instability, or pandemic or epidemic disease outbreaks, or the impact of the United States government shutdown, many of which are beyond our control, as well as the value of our common stock and our ability to access capital markets; and
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act and a smaller reporting company, as defined in the Exchange Act.

Although we base these forward-looking statements on assumptions that we believe are reasonable when made, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from those made in or suggested by the forward-looking statements contained in this prospectus. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this prospectus, those results or developments may not be indicative of results or developments in subsequent periods.

Given these risks and uncertainties, you are cautioned not to place undue reliance on these forward-looking statements. Any forward-looking statement that we make in this prospectus speaks only as of the date of such statement. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless specifically expressed as such, and should only be viewed as historical data. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

Unless otherwise indicated, market and industry data contained in this prospectus, including potential market opportunities, is based on our management's estimates and research, as well as industry and general publications and research and studies conducted by third parties. Although we believe that the information from these third-party publications, research and studies included in this prospectus is reliable, and we are responsible for the accuracy of such information, we have not independently verified the accuracy or completeness of this information. Management's estimates are derived from publicly available information, their knowledge of our industry and their assumptions based on such information and knowledge, which we believe to be reasonable. This data involves a number of assumptions and limitations and the industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section "Risk Factors" in this prospectus, in our Annual Report on Form 10-K for the year ended December 31, 2024, in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, June 30, 2025, and September 30, 2025, and in our subsequent

filings with the SEC. These and other factors could cause our future performance to differ materially from our assumptions and estimates.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, in connection with an offering of securities pursuant to this prospectus, we currently intend to use any net proceeds we receive from the sale of any securities offered by us under this prospectus primarily for general corporate purposes. General corporate purposes may include, without limitation, research and development expenditures, preclinical and clinical development and commercialization of our product candidates, the acquisition or in-licensing of products or product candidates, business or technologies, collaborations, working capital and capital expenditures. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds. Additional information on the use of net proceeds we receive from the sale of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering.

PLAN OF DISTRIBUTION

We are registering securities, with an aggregate offering price not to exceed \$300,000,000, to be sold by us under a “shelf” registration process.

If we offer any securities under this prospectus, we will amend or supplement this prospectus by means of an accompanying prospectus supplement setting forth the specific terms and conditions and other information about that offering as is required or necessary.

We may sell the securities in any of the following ways (or in any combination thereof) from time to time:

- to or through one or more underwriters;
- through dealers, who may act as agents or principal (including a block trade in which a broker or dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction);
- through one or more agents;
- through registered direct offerings;
- as part of a collaboration with a third party;
- as part of an acquisition or merger with a third party;
- through at-the-market issuances within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, or an exchange or otherwise;
- in privately negotiated transactions; or
- directly to purchasers or to a single purchaser.

The distribution of the securities by us may be effected from time to time in one or more transactions:

- at a fixed price, or prices, which may be changed from time to time;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement will describe the terms of the offering of the securities, including the following, as applicable:

- the terms of the securities being offered, including the public offering price of the securities and the proceeds to us;
- the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;
- any underwriting discounts and commissions or agency fees and other items constituting underwriters’ or agents’ compensation;
- any options under which underwriters may purchase additional securities from us;
- any discounts or concessions allowed or reallowed or paid to dealers; and

- any securities exchanges on which the securities may be listed.

Only the agents or underwriters named in each prospectus supplement are agents or underwriters in connection with the securities being offered thereby.

We may authorize underwriters, dealers or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in each applicable prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will be subject only to those conditions set forth in each applicable prospectus supplement, and each prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

We may indemnify agents, underwriters, dealers, their affiliates, or other third parties who participate in the distribution of securities against certain liabilities, including liabilities under the Securities Act, and agree to contribute to payments which these agents, underwriters, dealers, or other third parties may be required to make. Agents, underwriters, dealers and such other third parties may be customers of, engage in transactions with, or perform services for us in the ordinary course of business. We may also use underwriters or such other third parties with whom we have a material relationship. We will describe the nature of any such relationship in the applicable prospectus supplement.

One or more firms, referred to as “remarketing firms,” may also offer or sell the securities, if a prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as our agents. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. Each prospectus supplement will identify and describe any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm’s compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may engage in transactions with or perform services for us in the ordinary course of business.

Certain underwriters may use this prospectus and any accompanying prospectus supplement for offers and sales related to market-making transactions in the securities. These underwriters may act as principal or agent in these transactions, and the sales will be made at prices related to prevailing market prices at the time of sale. Any underwriters involved in the sale of the securities may qualify as “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. In addition, the underwriters’ commissions, discounts or concessions may qualify as underwriters’ compensation under the Securities Act and the rules of the Financial Industry Regulatory Authority.

Our common stock is listed on The Nasdaq Global Market. Underwriters may make a market in our common stock, but will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the development, maintenance or liquidity of any trading market for the securities.

Certain persons participating in an offering may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with rules and regulations under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a short covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

We are subject to the applicable provisions of the Exchange Act and the rules and regulations under the Exchange Act, including Regulation M, which may limit the timing of purchases and sales of any of the securities

offered in this prospectus by any other person. The anti-manipulation rules under the Exchange Act may apply to sales of securities in the market and to the actions of the Company.

To the extent required, this prospectus may be amended and/or supplemented from time to time to describe a specific plan of distribution.

DESCRIPTION OF COMMON STOCK

The description of our common stock is incorporated by reference to Exhibit 4.1 of our Annual Report on Form 10-K for the year ended December 31, 2024, as filed with the SEC on March 27, 2025, including any amendments or reports filed for the purpose of updating such description.

DESCRIPTION OF PREFERRED STOCK

Under the terms of our Fifth Amended and Restated Certificate of Incorporation, our board of directors is authorized to issue up to 25,000,000 shares of preferred stock, par value \$0.0001 per share, in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of the holders of common stock until the board of directors determines the specific rights of the holders of preferred stock. However, effects of the issuance of preferred stock include restricting dividends on common stock, diluting the voting power of common stock, impairing the liquidation rights of common stock, and making it more difficult for a third party to acquire us, which could have the effect of discouraging a third party from acquiring, or deterring a third party from paying a premium to acquire, a majority of our outstanding voting stock.

If we offer any additional specific class or series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate establishing the terms of the preferred stock with the SEC. To the extent required, this description will include:

- the title and stated value;
- the number of shares offered, the liquidation preference per share and the purchase price;
- the dividend rate(s), period(s) and/or payment date(s), or method(s) of calculation for such dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption, if applicable;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price (or how it will be calculated) and conversion period;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price (or how it will be calculated) and exchange period;
- voting rights, if any, of the preferred stock;
- a discussion of any material U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the affairs of the Company; and
- any material limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the Company.

The preferred stock offered by this prospectus, when issued, will not have, or be subject to, any preemptive or similar rights.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase shares of our common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in each applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the applicable warrant agreements and the applicable prospectus supplement for the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of and other information relating to the warrants:

- the specific designation and aggregate number of, and the price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the designation, amount and terms of the securities purchasable upon exercise of the warrants;
- if applicable, the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise of the warrants;
- if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise, and a description of that class or series of our preferred stock;
- if applicable, the exercise price for our debt securities, the amount of our debt securities to be received upon exercise, and a description of that series of debt securities;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if the warrants may not be continuously exercised throughout that period, the specific date or dates on which the warrants may be exercised;
- whether the warrants will be issued in fully registered form or bearer form, in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- if applicable, the date from and after which the warrants and the common stock, preferred stock and/or debt securities will be separately transferable;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the anti-dilution provisions of the warrants, if any;
- any redemption or call provisions;
- whether the warrants are to be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

DESCRIPTION OF DEBT SECURITIES

We may issue the debt securities offered by this prospectus and any accompanying prospectus supplement under an indenture to be entered into between us and the trustee identified in the applicable prospectus supplement. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as in effect on the date of the indenture. We have filed a copy of the form of indenture as an exhibit to the registration statement in which this prospectus is included. The indenture will be subject to and governed by the terms of the Trust Indenture Act of 1939.

We may offer debt securities as described in this prospectus that, unless otherwise specified in the applicable prospectus supplement, will represent direct, unsecured obligations of the Company and will rank equally with all of our other unsecured indebtedness.

The applicable prospectus supplement will describe the terms and features of any debt securities which we may offer, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The following description and any description of debt securities in the applicable prospectus supplement may not be complete and is subject to, and are qualified in their entirety by reference to, the indenture, any supplemental indentures or forms of debt securities, in each case that we will file with the SEC in connection with a public offering of debt securities.

General

We may issue the debt securities in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will describe the particular terms of each series of debt securities in the applicable prospectus supplement relating to that series, which we will file with the SEC.

The prospectus supplement will set forth, to the extent required, the following terms of the debt securities in respect of which the prospectus supplement is delivered:

- the title of the series (which shall distinguish the debt securities of that particular series from the debt securities of any other series);
- any limit upon the aggregate principal amount of the debt securities of the series which may be authenticated and delivered under the indenture;
- the price or prices (expressed as a percentage of the principal amount thereof) at which the series of debt securities will be issued;
- the date or dates on which principal of the securities of the series is payable;
- the rate or rates (which may be fixed or variable) per annum or, if applicable, the method used to determine such rate or rates (including, but not limited to, any commodity, commodity index, stock exchange index or financial index) at which the debt securities of the series shall bear interest, if any, the date or dates from which such interest, if any, shall accrue, the date or dates on which such interest, if any, shall commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where the principal, interest and premium, if any, on the debt securities of the series are payable, or the method of such payment, if by wire transfer, mail or other means;
- if applicable, the period or periods within which, the price or prices at which and the terms and conditions upon which the debt securities of the series may be redeemed, in whole or in part, at our option;
- our obligation, if any, to redeem or purchase the debt securities of the series pursuant to any sinking fund or analogous provisions or at the option of a holder thereof, and the period or periods within which, the price or prices at which and the terms and conditions upon which debt securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

- the dates, if any, on which and the price or prices at which the debt securities of the series will be repurchased by us at the option of the holders thereof, and other detailed terms and provisions of such repurchase obligations;
- if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which the debt securities of the series shall be issuable;
- the forms of the debt securities of the series in bearer (if to be issued outside of the United States of America) or fully registered form (and, if in fully registered form whether the debt securities will be issuable as global securities);
- if other than the principal amount thereof, the portion of the principal amount of the debt securities of the series that shall be payable upon declaration of acceleration of the maturity thereof;
- the currency of denomination of the debt securities of the series, which may be dollars or any foreign currency, and the agency or organization, if any, responsible for overseeing such composite currency;
- the designation of the currency, currencies or currency units in which payment of the principal of, and interest and premium, if any, on the debt securities of the series will be made;
- if payments of principal of, or interest or premium, if any, on the debt securities of the series are to be made in one or more currencies or currency units other than the that or those in which such securities are denominated are, the manner in which the exchange rate with respect to such payments will be determined;
- the manner in which the amounts of payment of principal of, or interest and premium, if any, on the debt securities of the series will be determined if such amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;
- the provisions, if any, relating to any collateral provided for the debt securities of the series;
- any addition to or change in the covenants in the indenture which applies to the debt securities of the series;
- any addition to or change in the events of default which applies to any debt securities of the series, and any change in the right of the trustee or the requisite holders of such debt securities to declare the principal amount thereof due and payable;
- the terms and conditions, if any, for conversion of the debt securities into or exchange of the debt securities for shares of common stock or preferred stock of the Company that apply to debt securities of the series;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to debt securities of such series;
- the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to other indebtedness of the Company;
- if applicable, that the debt securities of the series, in whole or any specified part, shall be defeasible; and
- any other terms of the debt securities of the series (which terms shall not be inconsistent with the provisions of the indenture, except as permitted by the indenture, but which may modify or delete any provision of the indenture insofar as it applies to such series).

We may issue discount debt securities that provide for an amount less than the stated principal amount to be due and payable upon acceleration of the maturity of such debt securities in accordance with the terms of the indenture. We may also issue debt securities in bearer form, with or without coupons. If we issue discount debt securities or debt securities in bearer form, we will describe material U.S. federal income tax considerations and other material special considerations which apply to these debt securities in the applicable prospectus supplement.

We may issue debt securities denominated in or payable in a foreign currency or currencies or a foreign currency unit or units. If we do, we will describe the restrictions, elections, and general tax considerations relating to the debt securities and the foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Exchange and/or Conversion Rights

We may issue debt securities which can be exchanged for or converted into shares of our common stock or preferred stock. If we do, we will describe the terms of exchange or conversion in the applicable prospectus supplement relating to these debt securities.

Transfer and Exchange

We may issue debt securities that will be represented by either:

- “book-entry,” which means that there will be one or more global securities registered in the name of a depository or a nominee of a depository; or
- “certificated securities,” which means that they will be represented by a certificate issued in definitive registered form.

We will specify in the prospectus supplement applicable to a particular offering whether the debt securities offered will be book-entry or certificated securities.

Certificated Debt Securities

If we issue certificated debt securities, a holder may transfer or exchange such debt securities at the trustee’s office or at the paying agent’s office or agency in accordance with the terms of the indenture. A holder will not be charged a service charge for any transfer or exchange of certificated debt securities but may be required to pay an amount sufficient to cover any tax or other governmental charge payable in connection with such transfer or exchange.

A holder may effect the transfer of certificated debt securities and of the right to receive the principal of, premium, and/or interest, if any, on the certificated debt securities only by surrendering the certificate representing the certificated debt securities and having us or the trustee issue a new certificate to the new holder.

Global Securities

If we decide to issue debt securities in the form of one or more global securities, then we will register the global securities in the name of the depository for the global securities or the nominee of the depository, and the global securities will be delivered by the trustee to the depository for credit to the accounts of the holders of beneficial interests in the debt securities.

The prospectus supplement will describe the specific terms of the depository arrangement for debt securities of a series that are issued in global form. None of our Company, the trustee, any payment agent or the security registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to these beneficial ownership interests.

No Protection in the Event of Change of Control

Unless we indicate otherwise in a prospectus supplement with respect to a particular series of debt securities, the debt securities will not contain any provisions that may afford holders of debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

Consolidation, Merger and Sale of Assets

Unless we indicate otherwise in a prospectus supplement, we will not in any transaction or series of transactions, merge or consolidate with or into, or sell, assign, convey or transfer, lease or otherwise dispose of all or substantially all of our properties and assets, unless:

- either (A) if the transaction or series of transactions is a merger or consolidation, the Company shall be the surviving person of such merger or consolidation, or (B) the person formed by such consolidation or into which the Company is merged or to which the properties and assets of the Company are transferred shall be a corporation or entity treated as a corporation for U.S. federal income tax purposes organized and existing under the laws of the United States of America, any state thereof or the District of Columbia, or a corporation or comparable legal entity treated as a corporation for U.S. federal income tax purposes organized under the laws of a foreign jurisdiction and shall expressly assume by a supplemental indenture executed and delivered to the trustee, in form reasonably satisfactory to the trustee, all of the obligations of the Company (including, without limitation, the obligation to pay the principal of, and premium and interest, if any, on, the securities and the performance of the other covenants) under the indenture as supplemented, and in each case, the indenture shall remain in full force and effect; and
- immediately before and immediately after giving effect to such transaction or series of transactions on a pro forma basis (including, without limitation, any indebtedness incurred or anticipated to be incurred in connection with or in respect of such transaction or series of transactions), no default or event of default shall have occurred and be continuing.

Events of Default

Unless otherwise specified in the applicable prospectus supplement, the following events will be events of default under the indenture with respect to debt securities of any series:

- we default in the payment of any principal of, or premium, if any, on, the debt securities when it becomes due and payable at maturity, upon acceleration, redemption or otherwise;
- we default in the payment of any interest on any debt security of a series when the same becomes due and payable, and the default continues for a period of 30 days;
- we default in observance or performance of any other covenant in the debt securities of a series or the indenture for 60 days after written notice from the trustee or the holders of not less than 25% in the aggregate principal amount of the debt securities of such series then outstanding which notice must specify the default, demand that it be remedied and state that the notice is a “Notice of Default”;
- certain events involving bankruptcy, insolvency or reorganization of CAMP4 or our subsidiary; and
- any other event of default provided for in such series of debt securities as may be specified in the applicable prospectus supplement.

Holders of a majority in principal amount of the debt securities of any series then outstanding have the right to waive any existing default or event of default with respect to such series or compliance with any provision of the indenture (with respect to such series) or the debt securities of such series with written notice to the trustee. Upon any such waiver, such default with respect to such series shall cease to exist, and any event of default with respect to such series arising therefrom shall be deemed to have been cured for every purpose of the indenture; but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto. If an event of default (other than an event of default resulting from certain events of bankruptcy, insolvency or reorganization with respect to the Company) occurs, and is continuing, then the trustee, by written notice, or the

holders of not less than 25% in aggregate principal amount of the outstanding debt securities of that series may declare that the entire principal amount, plus the premium, if any, of all the debt securities of that series then outstanding plus accrued and unpaid interest to the date of acceleration are immediately due and payable. At any time after the acceleration, but before a judgment or decree based on such acceleration is obtained by the trustee, the holders of a majority in aggregate principal amount of outstanding debt securities of such series may rescind and annul such acceleration if:

- all existing events of default (other than nonpayment of accelerated principal, premium or interest) have been cured or waived;
- all lawful interest on overdue installments of interest and overdue principal have been paid; and
- the rescission would not conflict with any judgment or decree.

In addition, if the acceleration occurs at any time when we have outstanding indebtedness which is senior to the debt securities, the payment of the principal amount of outstanding debt securities may be subordinated in right of payment to the prior payment of any amounts due under the senior indebtedness, in which case the holders of debt securities will be entitled to payment under the terms prescribed in the instruments evidencing the senior indebtedness and the indenture.

If an event of default resulting from certain events of bankruptcy, insolvency or reorganization with respect to the Company occurs, such principal, premium, if any, and interest amount with respect to all the debt securities of that series shall be due and payable immediately without any declaration or other act on the part of the trustee or the holders of the debt securities of that series.

The holders of a majority in principal amount of the outstanding debt securities of a series will have the right to waive any existing default or compliance with any provision of the indenture or the debt securities of that series and to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, subject to certain limitations specified in the indenture.

No holder of any debt security of a series will have any right to institute any proceeding with respect to the indenture or for any remedy under the indenture, unless:

- the holder gives to the trustee written notice of a continuing event of default with respect to the debt securities of that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the affected series make a written request to the trustee;
- the holder or holders offer to the trustee indemnity satisfactory to the trustee against any loss, liability or expense to be incurred in compliance with such request;
- the trustee does not comply with the request within 60 days after such request; and
- the holders of a majority in aggregate principal amount of the outstanding debt securities of the affected series do not give the trustee a direction inconsistent with such request during such 60-day period.

Modification and Waiver

From time to time, we and the trustee may, without the consent of holders of the debt securities of one or more series, amend the indenture or the debt securities of one or more series, or supplement the indenture, for certain specified purposes, including:

- to provide that the surviving entity following a change of control of CAMP4 permitted under the indenture will assume all of our obligations under the indenture and debt securities;
- to provide for certificated debt securities in addition to uncertificated debt securities;

- to comply with any requirements of the SEC under the Trust Indenture Act of 1939;
- to cure any mistake, ambiguity, defect or inconsistency, or make any other change that does not materially and adversely affect the rights of any holder;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture; and
- to evidence and provide for the acceptance of the appointment of a successor trustee under the indenture with respect to one or more series and to add to or change any of the provisions of the indenture as shall be necessary to provide for or facilitate the administration of the trusts by more than one trustee.

From time to time we and the trustee may, with the consent of holders of not less than a majority of the aggregate principal amount of an outstanding series of debt securities, amend or supplement the indenture or the debt securities series, or waive compliance in a particular instance by us with any provision of the indenture or the debt securities. We may not, however, without the consent of each holder affected by such action, modify or supplement the indenture or the debt securities or waive compliance with any provision of the indenture or the debt securities or waive compliance with any provision of the indenture or the debt securities in order to:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement, or waiver to the indenture or such debt security;
- reduce the rate of or change the time for payment of interest on any of the debt securities;
- reduce the principal of or change the stated maturity of the debt securities, or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation;
- make any debt security payable in money other than that stated in the debt security;
- change the amount or time of any payment required by the debt securities or reduce the premium payable upon any redemption of the debt securities, or change the time before which no such redemption may be made;
- waive a default or event of default in the payment of the principal of, or interest or premium, if any, on any debt securities (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in principal amount of the outstanding debt securities of such series and a waiver of the payment default that resulted from such acceleration);
- waive a redemption payment with respect to any debt securities or change any provision with respect to redemption of debt securities;
- take any other action otherwise prohibited by the indenture to be taken without the consent of each holder affected by the action; or
- make any changes to the above provisions or the acceleration provisions of the indenture, except to increase any percentage of debt securities the holders of which must consent to any matter.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

The indenture permits us, at any time, to elect to discharge our obligations with respect to one or more series of debt securities by following certain procedures described in the indenture. These procedures will allow us either:

- to defease and be discharged from any and all of our obligations with respect to any debt securities except for the following obligations (which discharge is referred to as “legal defeasance”):
 - (1) to replace temporary or mutilated, destroyed, lost or stolen debt securities;
 - (2) the rights, powers, trusts, duties and immunities of the trustee; or

(3) to maintain an office or agency in respect of the debt securities and to hold monies for payment in trust; or

- to be released from our obligations with respect to the debt securities under certain covenants contained in the indenture, as well as any additional covenants which may be contained in an applicable supplemental indenture (which release is referred to as “covenant defeasance”).

In order to exercise either defeasance option, we must irrevocably deposit with the trustee or other qualifying trustee, in trust for that purpose:

- money;
- U.S. Government Obligations (as described below) or Foreign Government Obligations (as described below) which through the scheduled payment of principal and interest in accordance with their terms will provide, not later than the due date of any payment, money; or
- a combination of money and/or U.S. Government Obligations and/or Foreign Government Obligations sufficient in the written opinion of a nationally-recognized firm of independent accountants to provide money;

which in each case specified above, provides an amount sufficient to pay the principal of, premium, if any, and interest, if any, on the debt securities of the series, on the scheduled due dates or on a selected date of redemption in accordance with the terms of the indenture.

In addition, defeasance may be effected only if, among other things:

- in the case of either legal or covenant defeasance, we deliver to the trustee an opinion of counsel, as specified in the indenture;
- in the case of legal defeasance, we deliver to the trustee an opinion of counsel stating that we have received from, or there has been published by, the Internal Revenue Service a ruling to the effect that, or there has been a change in any applicable federal income tax law with the effect that or there has been a change in any applicable U.S. Federal income tax law with the effect that, and such opinion shall confirm that, the holders of the outstanding debt securities of such series or persons will not recognize income, gain or loss for U.S. federal income tax purposes solely as a result of such legal defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner, including as a result of prepayment, and at the same times as would have been the case if legal defeasance had not occurred;
- in the case of covenant defeasance, we deliver to the trustee an opinion of counsel to the effect that the holders of the outstanding debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of covenant defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if covenant defeasance had not occurred; and
- certain other conditions described in the indenture are satisfied.

If we fail to comply with our remaining obligations under the indenture and any applicable supplemental indenture after a covenant defeasance of the indenture and any applicable supplemental indenture, and the debt securities are declared due and payable because of the occurrence of any undefeased event of default, the amount of money and/or U.S. Government Obligations and/or Foreign Government Obligations on deposit with the trustee could be insufficient to pay amounts due under the debt securities of the affected series at the time of acceleration. We will, however, remain liable in respect of these payments.

The term “U.S. Government Obligations” as used in the above discussion means direct non-callable obligations of or non-callable obligations guaranteed by the United States of America for the payment of which obligation or guarantee the full faith and credit of the United States of America is pledged.

The term “Foreign Government Obligations” as used in the above discussion means, with respect to securities that are denominated in a foreign currency (i) direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged or (ii) obligations of a person controlled or supervised by or acting as an agency or instrumentality of such government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by such government, which in either case under clauses (i) and (ii), are not callable or redeemable at the option of the issuer thereof.

Regarding the Trustee

We will identify the trustee with respect to any series of debt securities in the prospectus supplement relating to the applicable debt securities. You should note that if the trustee becomes a creditor of CAMP4, the indenture and the Trust Indenture Act of 1939 limit the rights of the trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim, as security or otherwise. The trustee and its affiliates may engage in, and will be permitted to continue to engage in, other transactions with us and our affiliates. If, however, the trustee acquires any “conflicting interest” within the meaning of the Trust Indenture Act of 1939, it must eliminate such conflict or resign.

The holders of a majority in principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee. If an event of default occurs and is continuing, the trustee, in the exercise of its rights and powers, must use the degree of care and skill of a prudent person under the same circumstances in the conduct of his or her own affairs. Subject to that provision, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they have offered to the trustee indemnity or security against the costs, expenses and liabilities which may be incurred therein or thereby.

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York.

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, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including us. The address of the SEC website is www.sec.gov.

We maintain a website at www.camp4tx.com. Information contained in, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus certain information we file with it, which means that we can disclose important information about us by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information in documents that we file later with the SEC will automatically update and supersede information in this prospectus. We incorporate by reference into this prospectus the documents listed below and any future filings, including all filings made after the date of the filing of the registration statement of which this prospectus is part and prior to the effectiveness of such registration statement, made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except for information “furnished” under Items 2.02, 7.01 or 9.01 on Form 8-K or other information “furnished” to the SEC which is not deemed filed and not incorporated in this prospectus, until the termination of the offering of securities described in the applicable prospectus supplement. We hereby incorporate by reference the following documents:

- our Annual Report on Form 10-K for the year ended December 31, 2024, as filed with the SEC on [March 27, 2025](#);
- our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2025, as filed with the SEC on [May 13, 2025](#), for the quarter ended June 30, 2025, as filed with the SEC on [August 14, 2025](#) and for the quarter ended September 30, 2025, as filed with the SEC on [November 6, 2025](#);
- our Current Reports on Form 8-K filed with the SEC on [January 7, 2025](#), [March 18, 2025](#), [June 13, 2025](#) and [September 10, 2025](#);
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2024 from our Definitive Proxy Statement on Schedule 14A for the 2025 Annual Meeting of Stockholders, as filed with the SEC on [April 30, 2025](#); and
- the description of our common stock, which is contained in the Registration Statement on Form 8-A, as filed with the SEC on [October 8, 2024](#), as supplemented by the description of our common stock and preferred stock contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on March 27, 2025.

The SEC file number for each of the documents listed above is 001-42365.

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

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address:

CAMP4 Therapeutics
One Kendall Square
Building 1400 West, 3rd Floor
Cambridge, Massachusetts 02139
(617) 651-8867
Attention: Corporate Secretary

Copies of these filings are also available, without charge, on the SEC’s website at www.sec.gov and on our website at www.camp4tx.com as soon as reasonably practicable after they are filed electronically with the SEC. The information contained on our website is not a part of this prospectus.

LEGAL MATTERS

The validity of the issuance of the securities offered pursuant to this prospectus will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. The validity of any securities will be passed upon for any underwriters or agents by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of CAMP4 Therapeutics Corporation appearing in CAMP4 Therapeutics Corporation's Annual Report (Form 10-K) for the year ended December 31, 2024, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon (which includes an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern described in Note 1 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.



5,000,000 Shares of Common Stock

PROSPECTUS SUPPLEMENT

Leerink Partners

December 18, 2025