

PROSPECTUS SUPPLEMENT  
(To Prospectus dated February 29, 2024)

# Vistagen

**Up to \$175,000,000**

## **Common Stock**

On May 14, 2021, we entered into an Open Market Sale Agreement<sup>SM</sup> (the “Sales Agreement”) with Jefferies LLC (“Jefferies”) relating to shares of our common stock, par value \$0.001 per share, offered by this prospectus supplement. We have increased the maximum aggregate offering amount of the shares of our common stock that we may offer and sell from time to time through Jefferies, acting as our sales agent, from \$100,000,000 to \$175,000,000, as reflected on the cover of this prospectus supplement. As of the date of this prospectus supplement, we have remaining capacity to sell up to approximately \$171,556,387 of our common stock under the Sales Agreement.

Sales of our common stock, if any, under this prospectus supplement may be made by any method permitted that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended (the “Securities Act”). Jefferies is not required to sell any specific amount of securities, but will act as our sales agent and use commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between Jefferies and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Jefferies will be entitled to compensation at a commission of up to 3.0% of the gross proceeds of the shares of common stock sold under the Sales Agreement. In connection with the sale of our common stock on our behalf, Jefferies will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Jefferies will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Jefferies with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended (the “Exchange Act”). See “Plan of Distribution” beginning on page S-10 for additional information regarding the compensation to be paid to Jefferies.

Our common stock is listed on The Nasdaq Capital Market under the trading symbol “VTGN.” On June 16, 2025, the last reported sale price of our common stock on The Nasdaq Capital Market was \$2.36 per share.

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*Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” beginning on page S-5 of this prospectus supplement and under similar headings in the documents incorporated by reference into this prospectus supplement.*

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

## **Jefferies**

The date of this prospectus supplement is June 17, 2025.

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## ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a shelf registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”). Under the shelf registration process, we may offer shares of our common stock and certain other of our securities having an aggregate offering price of up to \$350,000,000. Under this prospectus supplement, we may from time to time sell shares of our common stock having an aggregate offering price of up to \$175,000,000 at prices and on terms to be determined by market conditions at the time of the offering. The \$175,000,000 of shares of our common stock that may be sold under this prospectus supplement are included in the \$350,000,000 of our securities that may be sold under the shelf registration statement.

This prospectus supplement and the accompanying prospectus relate to the offering of our common stock. Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus supplement and the accompanying prospectus, together with the information incorporated by reference as described under the heading “Incorporation of Certain Information by Reference” in this prospectus supplement. These documents contain important information that you should consider when making your investment decision.

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of the common stock we are offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein or therein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both this prospectus supplement and the accompanying prospectus. 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 herein or 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. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

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 or in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreement, 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.

You should rely only on the information contained in, or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and Jefferies has not, authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement, in 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 Jefferies take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not, and Jefferies is not, making an offer to sell, or soliciting an offer to purchase, the securities 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, the accompanying prospectus, the documents incorporated by reference herein or therein, and in any free writing prospectus prepared by or on behalf of us that we may authorize for use in connection with this filing is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospectus may have changed since those dates. It is important for you to read and consider all information contained in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference herein and therein, and any free writing prospectus prepared by or on behalf of us that we may authorize for use in connection with this offering, in their entirety, before making an 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 Information 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 securities 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.

Unless otherwise stated, all references in this prospectus supplement and the accompanying prospectus to “we,” “us,” “our,” “Vistagen,” “the Company” and similar designations refer, collectively, to Vistagen Therapeutics, Inc., a Nevada corporation, and its consolidated subsidiaries.

We use our trademarks and our logo in this prospectus supplement and the documents incorporated by reference. Solely for the convenience, trademarks and tradenames referred to in this prospectus supplement appear without the “®” and “™” symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights to these trademarks and tradenames.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying base prospectus and the documents incorporated by reference herein and therein contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this prospectus, any prospectus supplement and the documents incorporated by reference herein, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth, are forward-looking statements. These 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.

The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about:

- the period over which we anticipate our available financial resources will enable us to fund our operating expense;
- our ability to obtain additional funding for our operations, including funding necessary to complete further development, approval and, if approved, commercialization of our product candidates;
- the format, objectives, strategy, likelihood of success, and cost of our preclinical studies and clinical trials and other product development activities, including the design of our preclinical studies and clinical trials;
- the timing of initiation of our preclinical studies and clinical trials;
- our ability to recruit, enroll and randomize suitable patients in our clinical trials;
- the timing of completion of our preclinical studies and clinical trials and related preparatory work;
- our ability to collect and interpret preclinical and clinical data;
- the timing and outcome of regulatory interactions, including whether preclinical studies and clinical trials meet the criteria to enable early-stage clinical development or support registration of our product candidates;
- the potential attributes and benefits of our product candidates;
- our ability to obtain and, if obtained, maintain regulatory approval for our product candidates, and any related restrictions, limitations or warnings on the label of an approved product candidate;
- the potential for our business development efforts to optimize the potential value of our neuroscience pipeline;
- our ability to compete with other companies currently marketing or engaged in the development of treatments for the indications that we pursue or are pursuing for our product candidates;
- our ability to obtain and maintain intellectual property protection for our product candidates and the duration of such protection;
- our ability to contract with and rely on third-parties to assist in conducting our preclinical studies and clinical trials and manufacturing our product candidates;
- the size and growth potential of the markets for our product candidates, and our ability to serve those markets, either on our own or in partnership with others;

- the rate and degree of market acceptance of our product candidates, if approved;
- the pricing and reimbursement of our product candidates, if approved;
- regulatory changes, including regulatory personnel, and developments in the U.S. and foreign countries;
- the impact of laws, regulations, accounting standards, regulatory requirements, judicial decisions and guidance issued by authoritative bodies;
- our ability to attract and retain key scientific, medical, commercial and management personnel;
- our estimates regarding expenses, future revenue, and needs for additional financing;
- our future financial performance;
- our ability to recognize the anticipated benefits of our License and Collaboration Agreement with AffaMed Therapeutics, Inc. (including our ability to receive future payments thereunder) and any other future financing or business development transactions;
- the effect of adverse market or macroeconomic conditions, including, among others, inflation, interest rates and economic uncertainty, market volatility resulting from global political or economic developments, war, international hostilities and terrorism, any future public health epidemics or outbreaks of infectious disease, the residual post-COVID environment and other factors on any of the foregoing or other aspects of our business operations, including but not limited to our preclinical studies, clinical trials and other product development activities, healthcare systems and the global economy as a whole; and
- other risks and uncertainties, including those described under Item 1A, “Risk Factors,” in our Annual Report on Form 10-K for the fiscal year ended March 31, 2025, which risk factors are incorporated herein by reference.

These forward-looking statements are only predictions, and we may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, so you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and operating results. Moreover, our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur.

You should read this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference herein and therein completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference herein and therein by these cautionary statements. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights selected information about us and this offering and does not contain all of the information that you should consider before investing in our securities. Before investing in our common stock, you should carefully read the information contained and incorporated by reference in this prospectus supplement, the accompanying prospectus, any related free-writing prospectus that we have authorized for use in connection with this offering and the documents incorporated by reference herein or therein, including the sections titled “Risk Factors,” “Cautionary Note Regarding Forward-Looking Statements” and the financial statements and accompanying notes.*

### Business Overview

We are a late clinical-stage biopharmaceutical company leveraging a deep understanding of nose-to-brain neurocircuitry to develop and commercialize a new class of non-systemic intranasal product candidates called pherines. Our broad and diverse neuroscience pipeline currently consists of five clinical-stage pherine product candidates, each with a novel mechanism of action and positive clinical data in their targeted indication(s). Pherines specifically and selectively bind to peripheral receptors in human nasal chemosensory neurons, and are designed to rapidly activate nose-to-brain neurocircuits believed to regulate brain areas without requiring systemic absorption or uptake into the brain to achieve desired therapeutic benefits.

Our most advanced intranasal pherine product candidate is fasedienol, which is being investigated in our U.S. registration-directed PALISADE Program for the acute treatment of social anxiety disorder (“SAD”). In August 2023, we received and reported positive topline results from our PALISADE-2 Phase 3 trial of fasedienol for the acute treatment of SAD. The ongoing clinical trials in our PALISADE Program include our PALISADE-3 and PALISADE-4 Phase 3 trials, which are designed similarly to PALISADE-2, and a small exploratory Phase 2 repeat dose study (the “Repeat Dose Study”). Topline data for PALISADE-3 are expected in the fourth quarter of 2025 and topline results for PALISADE-4 and the Repeat Dose Study are expected in the first half of 2026. We believe either PALISADE-3 or PALISADE-4, if successful, together with the positive results from PALISADE-2, may establish substantial evidence of the effectiveness of fasedienol in support of a potential New Drug Application submission to the U.S. Food and Drug Administration (the “FDA”) for the acute treatment of SAD. The FDA has granted Fast Track designation for the investigation of fasedienol for the acute treatment of SAD. Fasedienol has the potential to be the first FDA-approved acute treatment of SAD and provide significant advantages relative to the current standard of care.

We have also reported positive results from an exploratory Phase 2A clinical trial for each of our next most advanced pherine product candidates, itruvone for treatment of major depressive disorder, and PH80 for both vasomotor symptoms (hot flashes) due to menopause and premenstrual dysphoric disorder, as well as a pilot Phase 2A study of PH15 for improvement of psychomotor impairment due to mental fatigue and an exploratory Phase 2A study of PH284 for treatment of cancer cachexia.

We are passionate about developing transformative treatment options with potential to meet clear and growing unmet needs and bring meaningful relief to patients underserved by the current standard of care for multiple highly prevalent indications.

### Corporate Information

Vistagen Therapeutics, Inc., a Nevada corporation, is the parent of Pherin Pharmaceuticals, Inc., a Delaware corporation, and Vistastem, Inc., a wholly owned California corporation. Our principal executive offices are located at 343 Allerton Avenue, South San Francisco, California 94080, and our telephone number is (650) 577-3600. Our website address is [www.vistagen.com](http://www.vistagen.com). The information contained on our website is not part of this prospectus supplement or the accompanying prospectus. We have included our website address as a factual reference and do not intend it to be an active link to our website.

## THE OFFERING

<b>Common stock offered by us</b>	Shares of our common stock having an aggregate offering price of up to \$175,000,000.
<b>Plan of Distribution</b>	“At the market offering” that may be made from time to time through our sales agent, Jefferies. See “Plan of Distribution” on page S-10 of this prospectus supplement.
<b>Use of Proceeds</b>	Our management will retain broad discretion regarding the allocation and use of the net proceeds. We intend to use the net proceeds from this offering for contract manufacturing, nonclinical and clinical development, and potential commercialization of our pherine product candidates, as well as for working capital and other general corporate purposes. See “Use of Proceeds” on page S-8.
<b>Risk Factors</b>	Investing in our common stock involves a high degree of risk. See the information contained under the heading “Risk Factors” beginning on page S-5 of this prospectus supplement and under similar headings in the accompanying prospectus and in the other documents that are incorporated by reference herein and therein, including specifically under “Item 1A: Risk Factors” and elsewhere in our Annual Report on Form 10-K for the fiscal year ended March 31, 2025.
<b>Nasdaq Capital Market symbol</b>	“VTGN”

## RISK FACTORS

*Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below and in our Annual Report on Form 10-K for the fiscal year ended March 31, 2025 incorporated by reference into this prospectus supplement and the accompanying prospectus, any amendment or update thereto reflected in our subsequent filings with the SEC, any related free writing prospectus and all of the other information contained in this prospectus supplement, the accompanying prospectus, any related free writing prospectus and the documents incorporated by reference herein or therein, including our financial statements and related notes. If any of these risks is realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our common stock could decline, and you could lose part or all of your investment. Additional risks and uncertainties that are not yet identified or that we currently believe to be immaterial may also materially harm our business, operating results and financial condition and could result in a complete loss of your investment.*

### **Risks Relating to this Offering**

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

The shares sold in this offering, if any, will be sold from time to time at various prices. However, we expect that the offering price of our common stock will be substantially higher than the net tangible book value per share of our outstanding common stock. After giving effect to the sale of shares of our common stock in the aggregate amount of \$175,000,000 at an assumed offering price of \$2.36 per share, the last sale price of our common stock on June 16, 2025 on The Nasdaq Capital Market, and after deducting commissions and estimated offering expenses, our as adjusted net tangible book value as of March 31, 2025 would have been approximately \$170.6 million or approximately \$1.65 per share, excluding the impact of outstanding pre-funded warrants. This represents an immediate decrease in net tangible book value of approximately \$0.76 per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately \$0.71 per share to purchasers of our common stock in this offering. See “Dilution” for more information.

In addition to this offering, subject to market conditions and other factors, we may pursue additional equity financings in the future, including future public offerings or future private placements of equity securities or securities convertible into or exchangeable for equity securities at prices that may be higher or lower than the price per share in this offering. Further, the exercise of outstanding options or warrants could result in further dilution to investors and any additional shares issued in connection with acquisitions, collaborations, licensing transactions or other similar transactions will result in dilution to investors. In addition, the market price of our common stock could fall as a result of resales of any of these shares of common stock due to an increased number of shares available for sale in the market.

***The common stock offered hereby will be sold in “at the market offerings,” and investors who buy shares at different times will likely pay different prices.***

Investors who purchase shares in this offering at different times will likely pay different prices, and accordingly may experience different levels of dilution and different outcomes in their investment results. We will have discretion, subject to market demand and the terms of the Sales Agreement, to vary the timing, prices and number of shares sold in this offering. In addition, subject to the final determination by our board of directors or any restrictions we may place in any applicable placement notice, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

***Sales of a substantial number of shares of our common stock, or the perception that such sales may occur, may adversely impact the price of our common stock.***

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception that such sales may occur, may adversely impact the price of our common stock, even if there is no relationship between such sales and the performance of our business. As of March 31, 2025, we had 28,996,959 shares of common stock outstanding, as well as outstanding options to purchase an aggregate of

3,239,642 shares of our common stock at a weighted average exercise price of \$10.32 per share, outstanding pre-funded warrants to purchase up to 2,788,620 shares of our common stock at an exercise price of \$0.001 per share and outstanding warrants, other than the pre-funded warrants, to purchase up to an aggregate of 20,571,460 shares of our common stock at a weighted average exercise price of \$7.30 per share. The exercise and/or conversion of such outstanding derivative securities may result in further dilution of your investment.

***Our management will have broad discretion in the use of the net proceeds from this offering and may allocate such net proceeds in ways that you and other stockholders may not approve.***

Our management will have broad discretion in the use of the net proceeds from this offering, including for any of the purposes described in the section titled "Use of Proceeds," and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure of our management to use these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders.

***The actual number of shares we will issue under the Sales Agreement with Jefferies, at any one time or in total, is uncertain.***

Subject to certain limitations in the Sales Agreement with Jefferies and compliance with applicable law, we have the discretion to deliver placement notices to Jefferies at any time throughout the term of the Sales Agreement. The number of shares that are sold by Jefferies after delivering a placement notice will fluctuate based on the market price of the common stock during the sales period and limits we set with Jefferies.

***Because we have no current plans to pay cash dividends on our common stock for the foreseeable future, you may not receive any return on investment unless you sell your common stock for a price greater than that which you paid for it.***

We intend to retain future earnings, if any, for future operations and expansion of our business and have no current plans to pay any cash dividends for the foreseeable future. The declaration, amount and payment of any future dividends on shares of common stock will be at the sole discretion of our Board of Directors. Our Board of Directors may take into account general and economic conditions, our financial condition and results of operations, our available cash and current and anticipated cash needs, capital requirements, contractual, legal, tax and regulatory restrictions, implications on the payment of dividends by us to our stockholders or by our subsidiaries to us and such other factors as our Board of Directors may deem relevant. In addition, our ability to pay dividends may be limited by covenants in connection with any indebtedness we or our subsidiaries may incur. As a result, you may not receive any return on an investment in our common stock unless you sell our common stock for a price greater than that which you paid for it.

***If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.***

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. We currently have research coverage by four securities and industry analysts. If one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price and trading volume to decline.

***We may be subject to securities litigation, class action and derivative lawsuits, which could result in substantial costs and could divert management attention away from other business concerns.***

The market price of our common stock may be volatile and, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Even if the lawsuits are without merit, defending against these claims can result in

substantial costs and divert management time and resources from other business concerns, which could seriously harm our business. An adverse judgment could result in monetary damages, which could have a negative impact on our liquidity and financial condition.

***The market price of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on Nasdaq.***

Market conditions may result in volatility in the level of, and fluctuations in, market prices of stocks generally and, in turn, our common stock and sales of substantial amounts of our common stock in the market, in each case being unrelated or disproportionate to changes in our operating performance. A weak global economy or other circumstances, such as changes in tariffs and trade, could also contribute to extreme volatility of the markets, which may have an effect on the market price of our common stock.

## USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$175,000,000 from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize our Sales Agreement with Jefferies.

We intend to use the net proceeds from this offering for contract manufacturing, nonclinical and clinical development, and potential commercialization of our pherine product candidates, as well as for working capital and other general corporate purposes. Pending other uses, we intend to invest our proceeds from this offering in short-term investments or hold them as cash. We cannot predict whether the proceeds invested will yield a favorable return. Our management will have broad discretion in the use of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds.

## DILUTION

Purchasers of our common offered by this prospectus supplement and the accompanying prospectus will suffer immediate and substantial dilution in the net tangible book value per share of common stock. Net tangible book value is total assets minus the sum of liabilities and intangible assets. Net tangible book value per share is net tangible book value divided by the total number of shares of common stock outstanding. As of March 31, 2025, our net tangible book value was approximately \$70.0 million, or approximately \$2.41 per share.

After giving effect to the assumed sale of 74,152,542 shares of common stock in the aggregate amount of \$175,000,000 at an assumed public offering price of \$2.36 per share, the last reported price of our common stock on The Nasdaq Capital Market on June 16, 2025, after deducting the underwriting discount and commissions, and estimated offering expenses payable by us, our pro forma net tangible book value as of March 31, 2025 would have been approximately \$170.6 million or approximately \$1.65 per share. This amount represents an immediate decrease in net tangible book value of approximately \$0.76 per share to existing stockholders and an immediate dilution in net tangible book value of approximately \$0.71 per share to purchasers of our common stock in this offering.

The following table illustrates the dilution in net tangible book value per share to new investors:

<b>Assumed public offering price per share:</b>	\$	2.36
Net tangible book value per share as of March 31, 2025	\$	2.41
Decrease in pro forma, net tangible book value per share after this offering	\$	(0.76)
Pro forma net tangible book value per share after this offering	\$	1.65
Dilution in pro forma net tangible book value per share to new investors in this offering	\$	<u>0.71</u>

The foregoing discussion and table do not take into account further dilution to new investors that could occur upon the exercise of outstanding options or warrants having a per share exercise price less than the assumed public offering price in this offering. To the extent that we raise additional capital through the sale of equity or convertible debt securities after this offering, the issuance of those securities could result in further dilution to our stockholders.

The above discussion and table are based on 28,996,959 shares of common stock outstanding as of March 31, 2025 and excludes the following securities:

- 2,788,620 shares of common stock that have been reserved for issuance upon exercise of outstanding pre-funded warrants, with an exercise price of \$0.001 per share;
- 20,571,460 shares of common stock that have been reserved for issuance upon exercise of outstanding warrants, other than pre-funded warrants, with a weighted average exercise price of \$7.30 per share;
- 3,239,642 shares of common stock reserved for issuance upon exercise of outstanding stock options under our 2019 Omnibus Equity Incentive Plan, as amended (the "2019 Plan") and our Amended and Restated 2016 Stock Incentive Plan, formerly titled the 2008 Stock Incentive Plan, with a weighted average exercise price of \$10.32 per share;
- 2,042,153 shares of common stock reserved for future issuance in connection with future grants under the 2019 Plan; and
- 911,342 shares of common stock reserved for future issuance in connection with our 2019 Employee Stock Purchase Plan.

## PLAN OF DISTRIBUTION

We previously entered into the Sales Agreement with Jefferies, under which we may offer and sell shares of common stock from time to time through Jefferies acting as sales agent. Pursuant to this prospectus supplement, we may offer and sell up to \$175,000,000 of our shares of common stock, \$171,556,387 of which is still remaining to be sold. Sales of our shares of common stock, if any, under this prospectus supplement and the accompanying base prospectus will be made by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act.

Each time we wish to issue and sell shares of common stock under the Sales Agreement, we will notify Jefferies of the number of shares to be issued, the dates on which such sales are anticipated to be made, any limitation on the number of shares to be sold in any one day and any minimum price below which sales may not be made. Once we have so instructed Jefferies, unless Jefferies declines to accept the terms of such notice, Jefferies has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of Jefferies under the Sales Agreement to sell our shares of common stock are subject to a number of conditions that we must meet.

The settlement of sales of shares between us and Jefferies is generally anticipated to occur on the first trading day following the date on which the sale was made. Sales of our shares of common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and Jefferies may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Jefferies a commission of up to 3.0% of the aggregate gross proceeds we receive from each sale of our shares of common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In addition, we have agreed to reimburse Jefferies for the fees and disbursements of its counsel in an amount not to exceed \$75,000, in addition to certain ongoing disbursements of its legal counsel, unless we and Jefferies otherwise agree. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to Jefferies under the terms of the Sales Agreement, will be approximately \$0.1 million. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

Jefferies will provide written confirmation to us before the open on The Nasdaq Capital Market on the day following each day on which shares of common stock are sold under the sales agreement. Each confirmation will include the number of shares sold on that day, the aggregate gross proceeds of such sales and the proceeds to us.

In connection with the sale of the shares of common stock on our behalf, Jefferies will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Jefferies will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Jefferies against certain civil liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments Jefferies may be required to make in respect of such liabilities.

The offering of our shares of common stock pursuant to the Sales Agreement will terminate as permitted therein.

This summary of the material provisions of the Sales Agreement does not purport to be a complete statement of its terms and conditions. A copy of the Sales Agreement will be filed as an exhibit to a Current Report on Form 8-K filed under the Exchange Act and incorporated by reference in this prospectus supplement.

Jefferies and its affiliates may in the future provide various investment banking, commercial banking, financial advisory and other financial services for us and our affiliates, for which services they may in the future receive customary fees. In the course of its business, Jefferies may actively trade our securities for its own account or for the accounts of customers, and, accordingly, Jefferies may at any time hold long or short positions in such securities.

A prospectus supplement and the accompanying base prospectus in electronic format may be made available on a website maintained by Jefferies, and Jefferies may distribute the prospectus supplement and the accompanying prospectus electronically.

## LEGAL MATTERS

Certain legal matters in connection with this offering will be passed upon for us by Latham & Watkins LLP, Chicago, Illinois. The validity of the securities offered hereby will be passed upon for us by Woodburn and Wedge, Reno, Nevada. Jefferies LLC is being represented in connection with this offering by Cooley LLP, New York, New York.

## EXPERTS

The consolidated financial statements of Vistagen Therapeutics, Inc. as of March 31, 2025 and for the year ended March 31, 2025, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the March 31, 2025 consolidated financial statements contains an explanatory paragraph that states that the Company's recurring losses from operations and negative cash flows from operations since inception raise substantial doubt about the entity's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of that uncertainty.

The consolidated financial statements of Vistagen Therapeutics, Inc. as of March 31, 2024 and for the year ended March 31, 2024, have been incorporated by reference herein and in the registration statement in reliance upon the report of WithumSmith+Brown, PC, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities covered by this prospectus supplement. This prospectus supplement, which is a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information with respect to us and the securities covered by this prospectus, please see the registration statement and the exhibits filed with the registration statement. The SEC maintains an Internet website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the website is [www.sec.gov](http://www.sec.gov).

We are subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, we file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information are available free of charge at our website, [www.vistagen.com](http://www.vistagen.com), as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this prospectus supplement.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The following documents filed by us with the SEC are incorporated by reference in this prospectus supplement:

- our Annual Report on Form 10-K for the year ended March 31, 2025, filed on [June 17, 2025](#); and
- the description of our common stock contained in the Registration Statement on Form 8-A filed pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the “Securities Act”) on [May 3, 2016](#), including any amendment or report filed with the Commission for the purpose of updating this description.

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

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

We will provide upon request to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in the prospectus but not delivered with the prospectus. You may request a copy of these filings, excluding the exhibits to such filings which we have not specifically incorporated by reference in such filings, at no cost, by writing to or calling us at:

Vistagen Therapeutics, Inc.  
343 Allerton Avenue  
South San Francisco, California 94080  
(650) 577-3600

This prospectus is part of a registration statement we filed with the SEC. You should only rely on the information or representations contained in this prospectus and any accompanying prospectus supplement. We have not authorized anyone to provide information other than that provided in this prospectus and any accompanying prospectus supplement. We are not making an offer of the securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or any accompanying prospectus supplement is accurate as of any date other than the date on the front of the document.

PROSPECTUS



**\$350,000,000**

**COMMON STOCK  
PREFERRED STOCK  
DEBT SECURITIES  
WARRANTS  
UNITS**

We may offer and sell securities from time to time in one or more offerings of up to \$350,000,000 in aggregate offering price. This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide the specific terms of these securities in supplements to this prospectus. The prospectus supplements will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this document. You should read this prospectus and any applicable prospectus supplement before you invest. In addition, shares of common stock issuable from time to time upon exercise of our pre-funded warrants, Tranche 1 Warrants and Tranche 2 Warrants are also being offered pursuant to this prospectus. See “Description of Capital Stock – Securities Registered Under Prior Registration Statements” for information regarding the pre-funded warrants, Tranche 1 Warrants and Tranche 2 Warrants.

We may offer these securities in amounts, at prices and on terms determined at the time of offering. The securities may be sold directly to you, through agents, or through underwriters and dealers. If agents, underwriters or dealers are used to sell the securities, we will name them and describe their compensation in a prospectus supplement.

Our common stock is listed on the Nasdaq Capital Market under the symbol “VTGN.” On February 12, 2024, the closing price of our common stock on the Nasdaq Capital Market was \$5.15 per share.

**Investing in these securities involves certain risks. See “Risk Factors” included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.**

**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.**

**The date of this prospectus is February 29, 2024**

**VISTAGEN THERAPEUTICS, INC.**

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings for an aggregate initial offering price of up to \$350,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. This prospectus, together with any accompanying prospectus supplement, contains important information you should know before investing in our securities, including important information about us and the securities being offered. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the heading “Where You Can Find More Information” below.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different or additional information. If anyone provides you with different, additional or inconsistent information, you should not rely on it. We do not take responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or such accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any sale of securities. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless the context otherwise indicates, references in this prospectus to the “Company,” “we,” “our” and “us” refer, collectively, to Vistagen Therapeutics, Inc., a Nevada corporation, and its consolidated subsidiaries.

We use our trademarks and our logo in this prospectus and the documents incorporated by reference. Solely for the convenience, trademarks and tradenames referred to in this prospectus appear without the “®” and “™” symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights to these trademarks and tradenames.

## 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 [www.sec.gov](http://www.sec.gov). Copies of certain information filed by us with the SEC are also available on our website at [www.vistagen.com](http://www.vistagen.com). Our website is not a part of this prospectus and is not incorporated by reference in this prospectus.

This prospectus is part of a registration statement on Form S-3 we filed with the SEC. This prospectus 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 subsidiaries and the securities we are offering. Statements in this 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. You should review the complete document to evaluate these statements.

## INCORPORATION BY REFERENCE

The following documents filed by us with the SEC are incorporated by reference in this prospectus supplement:

- our Annual Report on Form 10-K for the year ended March 31, 2023, filed on [June 28, 2023](#);
- our Quarterly Report on Form 10-Q for the period ended June 30, 2023, filed on [August 10, 2023](#);
- our Quarterly Report on Form 10-Q for the period ended September 30, 2023, filed on [November 9, 2023](#);
- our Quarterly Report on Form 10-Q for the period ended December 31, 2023, filed on [February 13, 2024](#);
- our Definitive Proxy Statement on Schedule 14A, filed on [July 28, 2023](#);
- our Current Reports on Form 8-K, filed on [April 6, 2023](#), [April 19, 2023](#), [June 1, 2023](#), [June 6, 2023](#), [June 7, 2023](#), [June 13, 2023](#), [June 21, 2023](#), [June 23, 2023](#), [July 7, 2023](#), [July 13, 2023](#), [July 18, 2023](#), [August 22, 2023](#), [September 8, 2023](#), [September 13, 2023](#), [September 29, 2023](#), [October 2, 2023](#), [October 4, 2023](#) (excluding any information furnished in such reports under Item 7.01), [October 26, 2023](#), [November 6, 2023](#) (as amended on [November 7, 2023](#)), and [January 3, 2024](#); and
- The description of our common stock contained in the Registration Statement on Form 8-A filed pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the Securities Act) on [May 3, 2016](#), including any amendment or report filed with the Commission for the purpose of updating this description.

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

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

We will provide upon request to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in the prospectus but not delivered with

the prospectus. You may request a copy of these filings, excluding the exhibits to such filings which we have not specifically incorporated by reference in such filings, at no cost, by writing to or calling us at:

Vistagen Therapeutics, Inc.  
343 Allerton Avenue  
South San Francisco, California 94080  
(650) 577-3600

This prospectus is part of a registration statement we filed with the SEC. You should only rely on the information or representations contained in this prospectus and any accompanying prospectus supplement. We have not authorized anyone to provide information other than that provided in this prospectus and any accompanying prospectus supplement. We are not making an offer of the securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or any accompanying prospectus supplement is accurate as of any date other than the date on the front of the document.

## **RISK FACTORS**

Investing in our securities involves significant risks. Please see the risk factors under the heading “Risk Factors” in our most recent Annual Report on Form 10-K on file with the SEC and our Quarterly Reports on Form 10-Q subsequently filed with the SEC, each of which is incorporated by reference in this prospectus, along with any risk factors identified in a prospectus supplement. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus and any 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. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks referenced below and described in the documents incorporated herein by reference. 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.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement and the documents incorporated by reference herein contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this prospectus, any prospectus supplement and the documents incorporated by reference herein, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth, are forward looking statements. These 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.

The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about:

- the availability of capital to satisfy our working capital requirements;
- the accuracy of our estimates regarding expenses, future revenues and capital requirements;
- our plans to develop and commercialize our product candidates, including, among other things, fasedienol (PH94B) as a potential acute treatment of anxiety for adults with social anxiety disorder (“SAD”), itruvone (PH10) as a potential treatment for adults with major depressive disorder (“MDD”) and other depression-related disorders, PH80 for vasomotor symptoms (hot flashes) due to menopause, premenstrual dysphoric disorder (“PMDD”) or migraine, PH15 for cognition improvement, PH284 for appetite-related disorders or AV-101 as a potential treatment of disorders involving the Central Nervous System (“CNS”);
- our ability to initiate and complete necessary preclinical and clinical studies in accordance with applicable regulatory requirements to advance the development of our product candidates and for those studies to generate positive results;
- economic, regulatory and political developments in the United States and foreign countries;
- the performance of our third-party contractors involved with the manufacture and production of our drug candidates for nonclinical and clinical development activities, contract research organizations, potential commercial activities and other third-party nonclinical and clinical development collaborators and regulatory service providers;
- our ability to obtain and maintain intellectual property, regulatory and commercial protection for our core assets, including product candidates;
- the size of the potential markets for our product candidates and our ability to serve those markets;
- the rate and degree of market acceptance of our product candidates for any indication once approved;
- the success of competing products and product candidates in development by others that are or become available for the indications that we are pursuing in the markets we seek to enter on our own or with collaborators;
- the loss of key scientific, clinical and nonclinical development, regulatory, commercial, and/or management personnel, internally or from one of our third-party collaborators; contract manufacturing organizations, contract research organizations or other service providers;
- our ability to continue as a going concern;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;

- our use of our existing cash and cash equivalents; and
- other risks and uncertainties, including those described under Item 1A, “Risk Factors,” in our Annual Report on Form 10-K for the fiscal year ended March 31, 2023, and those described under Part II, Item 1A, “Risk Factors,” in our Quarterly Reports on Form 10-Q for the quarters ended June 30, 2023, September 30, 2023 and December 31, 2023, which risk factors are incorporated herein by reference.

These forward-looking statements are only predictions, and we may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, so you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and operating results. Moreover, our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur.

You should read this prospectus, any prospectus supplement and the documents incorporated by reference herein and the documents that we have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus and the documents incorporated by reference herein by these cautionary statements. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

## COMPANY OVERVIEW

*This summary highlights information contained elsewhere in this prospectus. This summary does not contain all the information you should consider before buying our securities. You should read the following summary together with the more detailed information appearing in this prospectus and any accompanying prospectus supplement, including the section titled "Risk Factors" on page 3, before deciding whether to purchase our securities.*

### Overview

We are a clinical-stage biopharmaceutical company pioneering neuroscience to deliver first-in-class therapies for psychiatric and neurological disorders. Five of our six clinical-stage product candidates – fasedienol (PH94B), itruvone (PH10), PH15, PH80 and PH284 – belong to a new class of drugs known as pherines, which have the potential to rapidly deliver meaningful efficacy with a differentiated safety profile. Pherines are investigational neuroactive nasal sprays with innovative proposed mechanisms of action that activate chemosensory neurons in the nasal passages to impact fundamental neural circuits in the brain without the need for systemic absorption or binding to receptors in the brain. Our sixth clinical-stage product candidate, AV-101, is an investigational oral drug candidate with the potential to inhibit, but not block, NMDA receptor activity.

We are passionate about transforming what is possible in the treatment of anxiety, depression, and other neuroscience disorders.

### Our Clinical-Stage Neuroscience Product Candidates

#### *Fasedienol Nasal Spray for Social Anxiety Disorder (SAD)*

Fasedienol (PH94B) is an odorless, tasteless synthetic investigational pherine nasal spray from the androstane family in Phase 3 clinical development for the acute treatment of anxiety for adults with SAD. When administered intranasally in microgram-level doses, fasedienol activates receptors of peripheral nasal chemosensory neurons connected to subsets of neurons in the olfactory bulbs that, in turn, connect to neurons in the limbic amygdala involved in the pathophysiology of SAD, and potentially other anxiety and mood disorders. Fasedienol is pharmacologically active without requiring apparent systemic absorption or direct activity on neurons in the brain to achieve its rapid-onset and short-duration anxiolytic effects. We believe fasedienol has the potential to achieve these effects with significantly reduced risks of side effects and other safety concerns, such as potential drug-drug interactions, abuse, misuse, and addiction, associated with certain other systemic pharmaceuticals that act directly on neurons in the brain and are sometimes prescribed for anxiety disorders.

The U.S. Food and Drug Administration (the FDA) has granted Fast Track designation for the development of fasedienol as a potential treatment for SAD.

#### *Fasedienol PALISADE Phase 3 Program in SAD*

Given how fasedienol's rapid-onset mechanism of action (MOA) is differentiated from all FDA-approved anxiety drugs, our primary target indication for fasedienol is the acute treatment of anxiety in adults with SAD. Currently, there is no FDA-approved drug therapy for the acute treatment of SAD. For that acute indication, we have aligned with the FDA that the Subjective Units of Distress Scale (SUDS) is an appropriate primary efficacy endpoint because it provides a measure of anxiety on a minute-by-minute basis immediately related to the specific stressor. We believe utilizing a simulated anxiety-provoking public speaking challenge study design provides the most appropriate and efficient path for the Phase 3 clinical development of fasedienol's potential to become the first FDA-approved acute treatment of anxiety for adults with SAD. Our PALISADE Phase 3 Program currently includes four randomized, double-blind, placebo-controlled, Phase 3 clinical trials designed to evaluate the efficacy, safety, and tolerability of a single dose of fasedienol to relieve anxiety symptoms in adult patients with SAD during a simulated, anxiety-provoking public speaking challenge in a clinical setting, as measured using the patient-reported SUDS, two of which Phase 3 trials (PALISADE-1 and PALISADE-2) have been concluded and two of which Phase 3 trials (PALISADE-3 and PALISADE-4) will be initiated in 2024, each with open-label extension. Our PALISADE

Phase 3 Program also includes an open-label safety study concluded in 2022 (PALISADE OLS), a Phase 2 repeat dose study to be initiated in 2024 (Repeat Dose Study), two standard preclinical studies to be initiated in 2024, and a small human factor study planned to be initiated in 2025.

In early August 2023, we received and reported positive topline results from our PALISADE-2 Phase 3 trial of fasedienol in SAD based on the 141 subjects who completed the trial. Our PALISADE-2 Phase 3 trial met its primary efficacy endpoint, the difference in mean SUDS scores during the public speaking challenge at baseline (Visit 2) and treatment (Visit 3) for subjects treated with fasedienol versus placebo at Visit 3. Fasedienol-treated patients demonstrated a greater mean change from baseline (least-squares (LS) mean = -13.8) compared to placebo (LS mean = -8.0), for a statistically significant, and we believe clinically relevant, difference between groups of -5.8 (p=0.015). The trial also met its secondary endpoint, demonstrating a statistically significant difference in the proportion of clinician-assessed responders between fasedienol and placebo as measured by the Clinical Global Impressions – Improvement (CGI-I) scale. Responders were identified as those who were rated ‘very much less anxious’ or ‘much less anxious’ and 37.7% of fasedienol-treated patients were rated as responders, as compared to 21.4% of those treated with placebo (p=0.033). The trial also met the important exploratory endpoint of the difference in the proportion of patient-assessed responders between fasedienol and placebo as measured by the Patient’s Global Impression of Change (PGI-C). Responders were identified as those who self-rated ‘very much less anxious’ or ‘much less anxious’ and 40.6% of fasedienol-treated patients were rated as responders, as compared to 18.6% of those treated with placebo (p=0.003). In addition, our PALISADE-2 trial also met the exploratory endpoint of the difference in the proportion of patients in each treatment group with a 20-point or greater improvement in patient-assessed SUDS score from baseline (Visit 2) to treatment (Visit 3). Of the fasedienol-treated patients, 35.7% demonstrated this statistically significant and clinically meaningful improvement in SUDS score, as compared to 18.6% in the placebo-treated group (p=0.020). Fasedienol was observed to be well-tolerated with no serious adverse events, and the treatment-emergent adverse event (TEAE) profiles were comparable between fasedienol and placebo. Overall, no TEAE, except for pyrexia in the placebo group (2.49%), was more prevalent than 2.0%.

To complement the positive topline results from PALISADE-2, we are preparing to launch PALISADE-3 in the first half of 2024 and PALISADE-4 in the second half of 2024. Like PALISADE-2, both PALISADE-3 and PALISADE-4 will be multi-center, randomized, double-blind, placebo-controlled studies designed to evaluate the efficacy, safety, and tolerability of the acute administration of fasedienol to relieve anxiety symptoms in adult patients with SAD after a single dose of fasedienol during a simulated, anxiety-provoking public speaking challenge in a clinical setting, as measured using the patient-reported SUDS as the primary efficacy endpoint. In addition, both PALISADE-3 and PALISADE-4 will have an open-label extension for a period of up to 12 months. We believe either PALISADE-3 or PALISADE-4, if successful, together with PALISADE-2, may establish substantial evidence of effectiveness of fasedienol in support of a potential fasedienol NDA submission for the acute treatment of anxiety in adults with SAD with the FDA.

We are also planning to initiate the Repeat Dose Study in the second half of 2024. The Repeat Dose Study will be a multi-center, randomized, double-blind, placebo-controlled, clinical trial designed to evaluate repeated dosing of fasedienol in adult patients with SAD during a single simulated, anxiety-provoking public speaking challenge in a clinical setting. The Repeat Dose Study trial will consist of three different dosing arms, with an open-label extension for a period of up to 12 months.

The U.S. FDA has granted Fast Track designation for the investigation of fasedienol for the acute treatment of SAD.

### ***Itruvone Nasal Spray for Major Depressive Disorder (MDD)***

Itruvone (PH10) is an odorless, tasteless synthetic investigational neuroactive piperine nasal spray from the pregnane family with an innovative potential MOA that is fundamentally differentiated from the MOA of all currently approved treatments for depression disorders. Itruvone neuroactive nasal spray is administered at microgram-level doses and is designed to engage and activate chemosensory neurons in the nasal cavity, which are connected to neural circuits in the brain that produce antidepressant effects. Unlike all currently approved oral antidepressants (ADs) and rapid-onset intravenous and intranasal ketamine-based therapy, we believe itruvone does not require

systemic absorption or direct activity on neurons in the brain to produce antidepressant effects without the side effects and safety concerns that may be associated with current antidepressant therapies.

We are currently preparing and planning for potential U.S. Phase 2B clinical development of itruvone for treatment of MDD. In a randomized, double-blind, placebo-controlled parallel design Phase 2A clinical trial of itruvone in MDD and published in the peer-reviewed British Journal of Pharmaceutical and Medical Research, at a 6.4 µg dose administered intranasally twice daily for eight weeks, PH10 significantly reduced depressive symptoms as early as one week based on the 17-item Hamilton Depression Scale (HAM-D-17) scores compared to placebo (p=0.022). Itruvone was well-tolerated and did not cause psychological side effects (such as dissociation or hallucinations) or other safety concerns that may be associated with other approved pharmacological therapies for MDD. The trial was sponsored by Pherin Pharmaceuticals (Pherin), now a wholly-owned subsidiary of Vistagen, and was conducted in Mexico. Positive data from our recent U.S. IND-enabling Phase 1 trial demonstrated that there were no reported treatment-related serious adverse events (SAEs) or discontinuations due to adverse events in the trial. Overall, itruvone was well-tolerated and continued to demonstrate a favorable safety profile consistent with all other itruvone trials completed to date.

The U.S. FDA has granted Fast Track designation for the investigation of itruvone for the treatment of MDD.

### ***PH80 Nasal Spray for Women's Health Disorders***

PH80 is an odorless, tasteless synthetic investigational pherine nasal spray with a novel, rapid-onset potential MOA that is fundamentally differentiated from the MOA of all currently approved treatments for vasomotor symptoms (hot flashes) due to menopause, premenstrual dysphoric disorder (PMDD), and other women's health disorders and migraine headaches. PH80 activates chemosensory neurons in the nasal cavity connected to neural circuits that modulate the basal forebrain associated with the control of body temperature.

**PH80 for Moderate to Severe Vasomotor Symptoms (hot flashes) due to Menopause.** We recently reported positive results from a previously unpublished exploratory randomized, double-blind, placebo-controlled Phase 2A study of PH80 for the acute treatment of vasomotor symptoms (hot flashes) due to menopause sponsored by Pherin, now our wholly-owned subsidiary. This Phase 2A study conducted in a real-world setting demonstrated a statistically significant reduction in the daily number of menopausal hot flashes compared to placebo at the end of the first week of treatment (p<0.001), and the improvement was maintained through each treatment week until the end of the four-week treatment period (p<0.001). PH80 treatment also significantly reduced the severity, disruption in function, and sweating related to hot flashes during the treatment period as compared with placebo. PH80 was well-tolerated with no serious adverse events (SAEs), and the adverse event profiles were comparable between PH80 and placebo. All 36 subjects completed four weeks of treatment and no subject discontinued participation in the study as a result of TEAEs.

**PH80 for Premenstrual Dysphoric Disorder (PMDD).** We also recently reported positive results from a previously unpublished exploratory randomized, double-blind, placebo-controlled Phase 2A clinical study of PH80 for acute management of the symptoms of PMDD, including negative mood and physical and behavioral symptoms, in subjects with a regular menstrual cycle and at least a one-year history of PMDD. This Phase 2A study was sponsored by Pherin, now our wholly-owned subsidiary, and demonstrated a statistically significant improvement versus placebo in acute management of the symptoms of PMDD, including negative mood and physical and behavioral symptoms. The initial study visit occurred after the onset of symptoms. All subjects were administered a placebo nasal spray, and those who showed no symptom improvement were eligible to return for the second visit, which occurred after the onset of symptoms during the next menstrual cycle. At the second study visit, subjects were randomized to receive a single dose of 0.9 µg PH80 nasal spray or placebo in the clinic. PH80 demonstrated statistically and clinically significant improvement versus placebo in symptoms of PMDD using the subject-rated Penn Daily Symptom Report (DSR) as early as Day 4 and continuing to Day 6 (p=0.008). PH80 also demonstrated statistically and clinically significant improvement versus placebo at Day 6 on the clinician-rated Premenstrual Tension Scale (PMTS) total score (p=0.006). PH80 was well-tolerated with no SAEs. The most common TEAE was headache, reported by 17% in the placebo group and 7% in the PH80 group. No other TEAE occurred more than once per subject.

We are preparing to conduct certain nonclinical studies during the 2024 calendar year necessary to submit our U.S. IND for potential Phase 2B clinical development of PH80 in the U.S. for one or more women's health indications.

#### ***PH15 Nasal Spray for Cognitive and Psychomotor Performance and Improvement***

PH15 is an odorless, tasteless synthetic investigational pherine nasal spray with a novel, rapid-onset potential MOA that is fundamentally differentiated from the MOA of all currently approved treatments to improve cognitive impairment caused by mental fatigue and potentially other disorders. We believe intranasal PH15 has the potential to improve cognitive and psychomotor performance and improvement of reaction time in individuals with mental fatigue. We are currently evaluating the potential path forward for PH15, including an assessment of completed studies and studies we believe are necessary to submit a U.S. IND for potential further Phase 2 clinical development of PH15 in the U.S., including the appropriate indication for demonstrating improvement of cognitive function.

#### ***PH284 Nasal Spray for Cachexia***

PH284 is an odorless, tasteless synthetic investigational pherine nasal spray with a novel, rapid-onset potential MOA that is fundamentally differentiated from the MOA of all currently approved treatments for the loss of appetite associated with chronic disorders such as cancer. Cachexia is a serious but under-recognized consequence of many chronic diseases with body mass loss of >10% and a prevalence of 5 to 15 %. We believe PH284 may have therapeutic potential for improving subjective feelings of hunger in patients with cachexia. We are currently evaluating the potential path forward for PH284, including assessment of completed studies and studies we believe are necessary to submit a U.S. IND for potential further Phase 2 clinical development of PH15 for the treatment of cachexia, including the appropriate patient populations for demonstrating an increase in appetite and weight gain.

#### ***AV-101 for Neurological Disorders***

AV-101 (4-Cl-KYN) is a novel, oral prodrug that targets the NMDAR (N-methyl-D-aspartate receptor), an ionotropic glutamate receptor in the brain. Based on observations and findings from preclinical studies, we believe AV-101 has the potential to become a new oral treatment alternative for multiple neuroscience disorders, including levodopa-induced dyskinesia and neuropathic pain among others. We are currently assessing a path forward for potential Phase 2A clinical development of AV-101, either on our own or with collaborators, as a treatment for levodopa-induced dyskinesia associated with Parkinson's disease therapy and possibly one or more additional neurological disorders involving the NMDAR receptor.

The U.S. FDA has granted Fast Track designation for the investigation of AV-101 for the treatment of neuropathic pain and for the adjunctive treatment of MDD.

#### **Corporate Information**

Vistagen Therapeutics, Inc., a Nevada corporation, is the parent of Pherin Pharmaceuticals, Inc., a Delaware corporation, and Vistastem, Inc., a wholly owned California corporation. Our principal executive offices are located at 343 Allerton Avenue, South San Francisco, California 94080, and our telephone number is (650) 577-3600. Our website address is [www.vistagen.com](http://www.vistagen.com).

## **USE OF PROCEEDS**

We intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes unless otherwise indicated in the applicable prospectus supplement. General corporate purposes may include expenditures for research and development expenditures, nonclinical and clinical trials, contract manufacturing, pre-commercial and commercial activities, information technology, intellectual property, working capital, the acquisition of companies or businesses and the repayment and refinancing of debt. 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.

## SECURITIES THAT MAY BE OFFERED

We may offer under this prospectus shares of our common stock and preferred stock, various series of debt securities, warrants to purchase any of such securities and units comprised of one or more of the other securities that may be offered under this prospectus, either individually or in combination with other securities, with a total value of up to \$350,000,000 from time to time at prices and on terms to be determined at the time of any offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity;
- original issue discount;
- rates and times of payment of interest or dividends;
- redemption, conversion, exercise, exchange or sinking fund terms;
- ranking;
- restrictive covenants;
- voting or other rights;
- conversion or exchange prices or rates and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange; and
- a discussion of material U.S. federal income tax considerations, if any.

This prospectus may not be used to offer or sell securities unless accompanied by an applicable prospectus supplement. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

The following descriptions are not complete and may not contain all the information you should consider before investing in any securities we may offer hereunder; they are summarized from, and qualified by reference to, our restated certificate of incorporation, amended and restated by-laws, as amended, and the other documents referred to in the descriptions, all of which are or will be publicly filed with the SEC, as applicable. See “Where You Can Find More Information.”

## DESCRIPTION OF DEBT SECURITIES

*This section describes the general terms and provisions of debt securities that we may issue from time to time. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, the applicable prospectus supplement will describe the specific terms of any debt securities offered through that prospectus supplement. The terms of any debt securities we offer under a prospectus supplement may differ from the terms we describe below.*

We may offer debt securities which may be senior or subordinated. We refer to the senior debt securities and the subordinated debt securities collectively as debt securities. The following description summarizes the general terms and provisions of the debt securities. We will describe the specific terms of the debt securities and the extent, if any, to which the general provisions summarized below apply to any series of debt securities in the prospectus supplement relating to the series and any applicable free writing prospectus that we authorize to be delivered.

We may issue senior debt securities from time to time, in one or more series under a senior indenture to be entered into between us and a senior trustee to be named in a prospectus supplement, which we refer to as the senior trustee. We may issue subordinated debt securities from time to time, in one or more series under a subordinated indenture to be entered into between us and a subordinated trustee to be named in a prospectus supplement, which we refer to as the subordinated trustee. The forms of senior indenture and subordinated indenture are filed as exhibits to the registration statement of which this prospectus forms a part. Together, the senior indenture and the subordinated indenture are referred to as the indentures and, together, the senior trustee and the subordinated trustee are referred to as the trustees. This prospectus briefly outlines some of the provisions of the indentures. The following summary of the material provisions of the indentures is qualified in its entirety by the provisions of the indentures, including definitions of certain terms used in the indentures. Wherever we refer to particular sections or defined terms of the indentures, those sections or defined terms are incorporated by reference in this prospectus or the applicable prospectus supplement. You should review the indentures that are filed as exhibits to the registration statement of which this prospectus forms a part for additional information.

None of the indentures will limit the amount of debt securities that we may issue. The applicable indenture will provide that debt securities may be issued up to an aggregate principal amount authorized from time to time by us and may be payable in any currency or currency unit designated by us or in amounts determined by reference to an index.

### General

The senior debt securities will constitute our unsecured and unsubordinated general obligations and will rank pari passu with our other unsecured and unsubordinated obligations, if any. The subordinated debt securities will constitute our unsecured and subordinated general obligations and will be junior in right of payment to our senior indebtedness (including senior debt securities), as described under the heading “– Certain Terms of the Subordinated Debt Securities – Subordination.” The debt securities will be structurally subordinated to all existing and future indebtedness and other liabilities of our subsidiaries unless such subsidiaries expressly guarantee such debt securities.

The debt securities will be our unsecured obligations. Any secured debt or other secured obligations will be effectively senior to the debt securities to the extent of the value of the assets securing such debt or other obligations.

The applicable prospectus supplement and/or free writing prospectus will include any additional or different terms of the debt securities of any series being offered, including the following terms:

- the title and type of the debt securities;
- whether the debt securities will be senior or subordinated debt securities, and, with respect to debt securities issued under the subordinated indenture the terms on which they are subordinated;

- the aggregate principal amount of the debt securities;
- the price or prices at which we will sell the debt securities;
- the maturity date or dates of the debt securities and the right, if any, to extend such date or dates;
- the rate or rates, if any, per year, at which the debt securities will bear interest, or the method of determining such rate or rates;
- the date or dates from which such interest will accrue, the interest payment dates on which such interest will be payable or the manner of determination of such interest payment dates and the related record dates;
- the right, if any, to extend the interest payment periods and the duration of that extension;
- the manner of paying principal and interest and the place or places where principal and interest will be payable;
- provisions for a sinking fund, purchase fund or other analogous fund, if any;
- any redemption dates, prices, obligations and restrictions on the debt securities;
- the currency, currencies or currency units in which the debt securities will be denominated and the currency, currencies or currency units in which principal and interest, if any, on the debt securities may be payable;
- any conversion or exchange features of the debt securities;
- whether and upon what terms the debt securities may be defeased;
- any events of default or covenants in addition to or in lieu of those set forth in the indenture;
- whether the debt securities will be issued in definitive or global form or in definitive form only upon satisfaction of certain conditions;
- whether the debt securities will be guaranteed as to payment or performance;
- any special tax implications of the debt securities; and
- any other material terms of the debt securities.

When we refer to “principal” in this section with reference to the debt securities, we are also referring to “premium, if any.”

We may from time to time, without notice to or the consent of the holders of any series of debt securities, create and issue further debt securities of any such series ranking equally with the debt securities of such series in all respects (or in all respects other than (1) the payment of interest accruing prior to the issue date of such further debt securities or (2) the first payment of interest following the issue date of such further debt securities). Such further debt securities may be consolidated and form a single series with the debt securities of such series and have the same terms as to status, redemption or otherwise as the debt securities of such series.

You may present debt securities for exchange and you may present debt securities for transfer in the manner, at the places and subject to the restrictions set forth in the debt securities and the applicable prospectus supplement. We will provide you those services without charge, although you may have to pay any tax or other governmental charge payable in connection with any exchange or transfer, as set forth in the indenture.

Debt securities may bear interest at a fixed rate or a floating rate. Debt securities bearing no interest or interest at a rate that at the time of issuance is below the prevailing market rate (original issue discount securities) may be sold at

a discount below their stated principal amount. U.S. federal income tax considerations applicable to any such discounted debt securities or to certain debt securities issued at par which are treated as having been issued at a discount for U.S. federal income tax purposes will be described in the applicable prospectus supplement.

We may issue debt securities with the principal amount payable on any principal payment date, or the amount of interest payable on any interest payment date, to be determined by reference to one or more currency exchange rates, securities or baskets of securities, commodity prices or indices. You may receive a payment of principal on any principal payment date, or a payment of interest on any interest payment date, that is greater than or less than the amount of principal or interest otherwise payable on such dates, depending on the value on such dates of the applicable currency, security or basket of securities, commodity or index. Information as to the methods for determining the amount of principal or interest payable on any date, the currencies, securities or baskets of securities, commodities or indices to which the amount payable on such date is linked and certain related tax considerations will be set forth in the applicable prospectus supplement.

### **Certain Terms of the Senior Debt Securities**

*Covenants.* Unless we indicate otherwise in a prospectus supplement, the senior debt securities will not contain any financial or restrictive covenants, including covenants restricting either us or our subsidiaries from incurring, issuing, assuming or guaranteeing any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, or restricting either us or our subsidiaries from entering into sale and leaseback transactions.

*Consolidation, Merger and Sale of Assets.* Unless we indicate otherwise in a prospectus supplement, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to any person, in either case, unless:

- the successor entity, if any, is a U.S. corporation, limited liability company, partnership or trust (subject to certain exceptions provided for in the senior indenture);
- the successor entity assumes our obligations on the senior debt securities and under the senior indenture;
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and
- certain other conditions are met.

*No Protection in the Event of a Change in Control.* Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the senior debt securities will not contain any provisions that may afford holders of the senior 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).

*Events of Default.* Unless we indicate otherwise in a prospectus supplement with respect to a particular series of senior debt securities, the following are events of default under the senior indenture for any series of senior debt securities:

- failure to pay interest on any senior debt securities of such series when due and payable, if that default continues for a period of 30 days (or such other period as may be specified for such series);
- failure to pay principal on the senior debt securities of such series when due and payable whether at maturity, upon redemption, by declaration or otherwise (and, if specified for such series, the continuance of such failure for a specified period);
- default in the performance of or breach of any of our covenants or agreements in the senior indenture applicable to senior debt securities of such series, other than a covenant breach which is specifically dealt with elsewhere in the senior indenture, and that default or breach continues for a period of 90 days after we receive written notice from the trustee or from the holders of 25% or more in aggregate principal amount of the senior debt securities of such series;

- certain events of bankruptcy or insolvency, whether or not voluntary; and
- any other event of default provided for in such series of senior debt securities as may be specified in the applicable prospectus supplement.

The default by us under any other debt, including any other series of debt securities, is not a default under the senior indenture.

If an event of default other than an event of default specified in the fourth bullet point above occurs with respect to a series of senior debt securities and is continuing under the senior indenture, then, and in each such case, either the trustee or the holders of not less than 25% in aggregate principal amount of such series then outstanding under the senior indenture (each such series voting as a separate class) by written notice to us and to the trustee, if such notice is given by the holders, may, and the trustee at the request of such holders shall, declare the principal amount of and accrued interest on such series of senior debt securities to be immediately due and payable, and upon this declaration, the same shall become immediately due and payable.

If an event of default specified in the fourth bullet point above occurs and is continuing, the entire principal amount of and accrued interest on each series of senior debt securities then outstanding shall become immediately due and payable.

Unless otherwise specified in the prospectus supplement relating to a series of senior debt securities originally issued at a discount, the amount due upon acceleration shall include only the original issue price of the senior debt securities, the amount of original issue discount accrued to the date of acceleration and accrued interest, if any.

Upon certain conditions, declarations of acceleration may be rescinded and annulled and past defaults may be waived by the holders of a majority in aggregate principal amount of all the senior debt securities of such series affected by the default, each series voting as a separate class. Furthermore, subject to various provisions in the senior indenture, the holders of a majority in aggregate principal amount of a series of senior debt securities, by notice to the trustee, may waive an existing default or event of default with respect to such senior debt securities and its consequences, except a default in the payment of principal of or interest on such senior debt securities or in respect of a covenant or provision of the senior indenture which cannot be modified or amended without the consent of the holders of each such senior debt security. Upon any such waiver, such default shall cease to exist, and any event of default with respect to such senior debt securities shall be deemed to have been cured, for every purpose of the senior indenture; but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto.

The holders of a majority in aggregate principal amount of a series of senior debt securities may direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to such senior debt securities. However, the trustee may refuse to follow any direction that conflicts with law or the senior indenture, that may involve the trustee in personal liability or that the trustee determines in good faith may be unduly prejudicial to the rights of holders of such series of senior debt securities not joining in the giving of such direction and may take any other action it deems proper that is not inconsistent with any such direction received from holders of such series of senior debt securities. A holder may not pursue any remedy with respect to the senior indenture or any series of senior debt securities unless:

- the holder gives the trustee written notice of a continuing event of default;
- the holders of at least 25% in aggregate principal amount of such series of senior debt securities make a written request to the trustee to pursue the remedy in respect of such event of default;
- the requesting holder or holders offer the trustee indemnity satisfactory to the trustee against any costs, liability or expense;
- the trustee does not comply with the request within 60 days after receipt of the request and the offer of indemnity; and

- during such 60-day period, the holders of a majority in aggregate principal amount of such series of senior debt securities do not give the trustee a direction that is inconsistent with the request.

These limitations, however, do not apply to the right of any holder of a senior debt security to receive payment of the principal of and interest on such senior debt security in accordance with the terms of such debt security, or to bring suit for the enforcement of any such payment in accordance with the terms of such debt security, on or after the due date for the senior debt securities, which right shall not be impaired or affected without the consent of the holder.

The senior indenture requires certain of our officers to certify, on or before a fixed date in each year in which any senior debt security is outstanding, as to their knowledge of our compliance with all covenants, agreements and conditions under the senior indenture.

*Satisfaction and Discharge.* We can satisfy and discharge our obligations to holders of any series of debt securities if:

- we pay or cause to be paid, as and when due and payable, the principal of and any interest on all senior debt securities of such series outstanding under the senior indenture; or
- all senior debt securities of such series have become due and payable or will become due and payable within one year (or are to be called for redemption within one year) and we deposit in trust a combination of cash and U.S. government or U.S. government agency obligations that will generate enough cash to make interest, principal and any other payments on the debt securities of that series on their various due dates.

Under current U.S. federal income tax law, the deposit and our legal release from the debt securities would be treated as though we took back your debt securities and gave you your share of the cash and debt securities or bonds deposited in trust. In that event, you could recognize a gain or loss on the debt securities you give back to us. Purchasers of the debt securities should consult their own advisers with respect to the tax consequences to them of such deposit and discharge, including the applicability and effect of tax laws other than the U.S. federal income tax law.

*Defeasance.* Unless the applicable prospectus supplement provides otherwise, the following discussion of legal defeasance and discharge and covenant defeasance will apply to any series of debt securities issued under the indentures.

*Legal Defeasance.* We can legally release ourselves from any payment or other obligations on the debt securities of any series (called “legal defeasance”) if certain conditions are met, including the following:

- We deposit in trust for your benefit and the benefit of all other direct holders of the debt securities of the same series a combination of cash and U.S. government or U.S. government agency obligations that will generate enough cash to make interest, principal and any other payments on the debt securities of that series on their various due dates.
- There is a change in current U.S. federal income tax law or an Internal Revenue Service (“IRS”) ruling that lets us make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and instead repaid the debt securities ourselves when due. Under current U.S. federal income tax law, the deposit and our legal release from the debt securities would be treated as though we took back your debt securities and gave you your share of the cash and debt securities or bonds deposited in trust. In that event, you could recognize gain or loss on the debt securities you give back to us.
- We deliver to the trustee a legal opinion of our counsel confirming the tax law change or ruling described above.

If we accomplish legal defeasance, as described above, you would have to rely solely on the trust deposit for repayment of the debt securities. You could not look to us for repayment in the event of any shortfall.

*Covenant Defeasance.* Without any change of current U.S. federal tax law, we can make the same type of deposit described above and be released from some of the covenants in the debt securities (called “covenant defeasance”). In that event, you would lose the protection of those covenants but would gain the protection of having money and securities set aside in trust to repay the debt securities. In order to achieve covenant defeasance, we must do the following (among other things):

- We must deposit in trust for your benefit and the benefit of all other direct holders of the debt securities of the same series a combination of cash and U.S. government or U.S. government agency obligations that will generate enough cash to make interest, principal and any other payments on the debt securities of that series on their various due dates.
- We must deliver to the trustee a legal opinion of our counsel confirming that under current U.S. federal income tax law we may make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and instead repaid the debt securities ourselves when due.

If we accomplish covenant defeasance, you could still look to us for repayment of the debt securities if there were a shortfall in the trust deposit. In fact, if one of the events of default occurred (such as our bankruptcy) and the debt securities become immediately due and payable, there may be such a shortfall. Depending on the events causing the default, you may not be able to obtain payment of the shortfall.

*Modification and Waiver.* We and the trustee may amend or supplement the senior indenture or the senior debt securities without the consent of any holder:

- to convey, transfer, assign, mortgage or pledge any assets as security for the senior debt securities of one or more series;
- to evidence the succession of a corporation, limited liability company, partnership or trust to us, and the assumption by such successor of our covenants, agreements and obligations under the senior indenture or to otherwise comply with the covenant relating to mergers, consolidations and sales of assets;
- to comply with requirements of the SEC in order to effect or maintain the qualification of the senior indenture under the Trust Indenture Act of 1939, as amended;
- to add to our covenants such new covenants, restrictions, conditions or provisions for the protection of the holders, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default;
- to cure any ambiguity, defect or inconsistency in the senior indenture or in any supplemental indenture or to conform the senior indenture or the senior debt securities to the description of senior debt securities of such series set forth in this prospectus or any applicable prospectus supplement;
- to provide for or add guarantors with respect to the senior debt securities of any series;
- to establish the form or forms or terms of the senior debt securities as permitted by the senior indenture;
- to evidence and provide for the acceptance of appointment under the senior indenture by a successor trustee, or to make such changes as shall be necessary to provide for or facilitate the administration of the trusts in the senior indenture by more than one trustee;
- to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms, purposes of issue, authentication and delivery of any series of senior debt securities;

- to make any change to the senior debt securities of any series so long as no senior debt securities of such series are outstanding; or
- to make any change that does not adversely affect the rights of any holder in any material respect.

Other amendments and modifications of the senior indenture or the senior debt securities issued may be made, and our compliance with any provision of the senior indenture with respect to any series of senior debt securities may be waived, with the consent of the holders of a majority of the aggregate principal amount of the outstanding senior debt securities of all series affected by the amendment or modification (voting together as a single class); provided, however, that each affected holder must consent to any modification, amendment or waiver that:

- extends the final maturity of any senior debt securities of such series;
- reduces the principal amount of any senior debt securities of such series;
- reduces the rate or extends the time of payment of interest on any senior debt securities of such series;
- reduces the amount payable upon the redemption of any senior debt securities of such series;
- changes the currency of payment of principal of or interest on any senior debt securities of such series;
- reduces the principal amount of original issue discount securities payable upon acceleration of maturity or the amount provable in bankruptcy;
- waives an uncured default in the payment of principal of or interest on the senior debt securities (except in the case of a rescission of acceleration as described above);
- changes the provisions relating to the waiver of past defaults or changes or impairs the right of holders to receive payment or to institute suit for the enforcement of any payment or conversion of any senior debt securities of such series on or after the due date therefor;
- modifies any of the provisions of these restrictions on amendments and modifications, except to increase any required percentage or to provide that certain other provisions cannot be modified or waived without the consent of the holder of each senior debt security of such series affected by the modification; or
- reduces the above-stated percentage of outstanding senior debt securities of such series whose holders must consent to a supplemental indenture or modifies or amends or waives certain provisions of or defaults under the senior indenture.

It shall not be necessary for the holders to approve the particular form of any proposed amendment, supplement or waiver, but it shall be sufficient if the holders' consent approves the substance thereof. After an amendment, supplement or waiver of the senior indenture in accordance with the provisions described in this section becomes effective, the trustee must give to the holders affected thereby certain notice briefly describing the amendment, supplement or waiver. Any failure by the trustee to give such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such amendment, supplemental indenture or waiver.

*No Personal Liability of Incorporators, Stockholders, Officers, Directors.* The senior indenture provides that no recourse shall be had under any obligation, covenant or agreement of ours in the senior indenture or any supplemental indenture, or in any of the senior debt securities or because of the creation of any indebtedness represented thereby, against any of our incorporators, stockholders, officers or directors, past, present or future, or of any predecessor or successor entity thereof under any law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise. Each holder, by accepting the senior debt securities, waives and releases all such liability.

*Concerning the Trustee.* The senior indenture provides that, except during the continuance of an event of default, the trustee will not be liable except for the performance of such duties as are specifically set forth in the senior

indenture. If an event of default has occurred and is continuing, the trustee will exercise such rights and powers vested in it under the senior indenture and will use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

The senior indenture and the provisions of the Trust Indenture Act of 1939 incorporated by reference therein contain limitations on the rights of the trustee thereunder, should it become a creditor of ours or our subsidiaries, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claims, as security or otherwise. The trustee is permitted to engage in other transactions, provided that if it acquires any conflicting interest (as defined in the Trust Indenture Act), it must eliminate such conflict or resign.

We may have normal banking relationships with the senior trustee in the ordinary course of business.

*Unclaimed Funds.* All funds deposited with the trustee or any paying agent for the payment of principal, premium, interest or additional amounts in respect of the senior debt securities that remain unclaimed for two years after the date upon which such principal, premium or interest became due and payable will be repaid to us. Thereafter, any right of any holder of senior debt securities to such funds shall be enforceable only against us, and the trustee and paying agents will have no liability therefor.

*Governing Law.* The senior indenture and the senior debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York.

### **Certain Terms of the Subordinated Debt Securities**

Other than the terms of the subordinated indenture and subordinated debt securities relating to subordination or otherwise as described in the prospectus supplement relating to a particular series of subordinated debt securities, the terms of the subordinated indenture and subordinated debt securities are identical in all material respects to the terms of the senior indenture and senior debt securities.

Additional or different subordination terms may be specified in the prospectus supplement applicable to a particular series.

*Subordination.* The indebtedness evidenced by the subordinated debt securities is subordinate to the prior payment in full of all of our senior indebtedness, as defined in the subordinated indenture. During the continuance beyond any applicable grace period of any default in the payment of principal, premium, interest or any other payment due on any of our senior indebtedness, we may not make any payment of principal of or interest on the subordinated debt securities (except for certain sinking fund payments). In addition, upon any payment or distribution of our assets upon any dissolution, winding-up, liquidation or reorganization, the payment of the principal of and interest on the subordinated debt securities will be subordinated to the extent provided in the subordinated indenture in right of payment to the prior payment in full of all our senior indebtedness. Because of this subordination, if we dissolve or otherwise liquidate, holders of our subordinated debt securities may receive less, ratably, than holders of our senior indebtedness. The subordination provisions do not prevent the occurrence of an event of default under the subordinated indenture.

The term "senior indebtedness" of a person means with respect to such person the principal of, premium, if any, interest on, and any other payment due pursuant to any of the following, whether outstanding on the date of the subordinated indenture or incurred by that person in the future:

- all of the indebtedness of that person for money borrowed;
- all of the indebtedness of that person evidenced by notes, debentures, bonds or other securities sold by that person for money;
- all of the lease obligations that are capitalized on the books of that person in accordance with generally accepted accounting principles;

- all indebtedness of others of the kinds described in the first two bullet points above and all lease obligations of others of the kind described in the third bullet point above that the person, in any manner, assumes or guarantees or that the person in effect guarantees through an agreement to purchase, whether that agreement is contingent or otherwise; and
- all renewals, extensions or refundings of indebtedness of the kinds described in the first, second or fourth bullet point above and all renewals or extensions of leases of the kinds described in the third or fourth bullet point above;

unless, in the case of any particular indebtedness, renewal, extension or refunding, the instrument creating or evidencing it or the assumption or guarantee relating to it expressly provides that such indebtedness, renewal, extension or refunding is not superior in right of payment to the subordinated debt securities. Our senior debt securities constitute senior indebtedness for purposes of the subordinated debt indenture.

## DESCRIPTION OF CAPITAL STOCK

### General

The following description of our capital stock is intended as a summary only and therefore is not a complete description of our capital stock. This description is based upon, and is qualified by reference to, our Restated and Amended Articles of Incorporation, as amended (our “Charter”), our Amended and Restated Bylaws, as amended (our “Bylaws”), and applicable provisions of Nevada corporate law. You should read our Charter and Bylaws for the provisions that are important to you.

Our authorized capital stock consists of 325,000,000 shares of common stock, \$0.001 par value per share, and 10,000,000 shares of preferred stock, \$0.001 par value per share, all of which preferred stock is undesignated. The following description of our capital stock and provisions of our Charter and Bylaws are summaries and are qualified by reference to our Charter and Bylaws. Copies of these documents are filed with the SEC as exhibits to our Annual Report on Form 10-K for the year ended March 31, 2023, filed with the SEC on June 28, 2023.

The following is a description of our common stock and certain provisions of our Charter, and our amended and restated bylaws, and certain provisions of Nevada law.

We may elect or be required to amend our Charter to increase the number of shares of common stock authorized for issuance prior to completing sales of shares of our common stock, or securities convertible and/or exchangeable into shares of our common stock described in this prospectus and/or any accompanying prospectus supplement.

### Common Stock

*This section describes the general terms of our common stock that we may offer from time to time. For more detailed information, a holder of our common stock should refer to our Charter and our Bylaws.*

Except as otherwise expressly provided in our Charter, or as required by applicable law, all shares of our common stock have the same rights and privileges and rank equally, share ratably and are identical in all respects as to all matters, including, without limitation, those described below. All outstanding shares of common stock are fully paid and nonassessable.

*Voting Rights* Each holder of our common stock is entitled to cast one vote for each share of common stock held on all matters submitted to a vote of stockholders. Cumulative voting for election of directors is not allowed under our Charter, which means that a plurality of the shares voted can elect all of the directors then outstanding for election. Except as otherwise provided under Nevada law or our Charter and Bylaws, on matters other than election of directors, action on a matter is approved if the votes cast favoring the action exceed the votes cast opposing the action.

*Dividend Rights* The holders of outstanding shares of our common stock are entitled to receive dividends out of funds legally available, if our Board of Directors (our “Board”), in its discretion, determines to issue a dividend, and only at the times and in the amounts that our Board may determine. Our Board is not obligated to declare a dividend. We have not paid any dividends on our common stock in the past and we do not intend to pay dividends in the foreseeable future.

*Liquidation Rights* Upon our liquidation, dissolution or winding-up, the holders of our common stock will be entitled to share equally, identically and ratably in all assets remaining, subject to the prior satisfaction of all outstanding debt and liabilities and the preferential rights and payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

*No Preemptive or Similar Rights* Our common stock is not subject to conversion, redemption, sinking fund or similar provisions.

*Listing on The Nasdaq Capital Market* Our common stock is listed on The Nasdaq Capital Market under the symbol “VTGN.”

*Authorized but Unissued Shares* The authorized but unissued shares of common stock are available for future issuance without stockholder approval, subject to any limitations imposed by applicable listing rules of The Nasdaq Stock Market. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock could make it more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

*Transfer Agent and Registrar* The transfer agent and registrar for our common stock is Computershare Trust Company,

### **Securities Offered Under Prior Registration Statements**

On October 2, 2023, we entered into an underwriting agreement (the “Underwriting Agreement”) with Jefferies LLC, Stifel, Nicolaus & Company, Incorporated, and William Blair & Company, L.L.C., as the representatives of the underwriters listed on Schedule A attached thereto (the “Underwriters”), in connection with the underwritten offering, issuance and sale by us of 15,010,810 shares common stock, pre-funded warrants to purchase up to 3,577,240 shares of common stock (the “Pre-Funded Warrants”), warrants to purchase up to 9,294,022 shares of common stock (or pre-funded warrants to purchase up to 9,294,022 shares of common stock in lieu thereof) (the “Tranche 1 Warrants”) and warrants to purchase 11,265,086 shares of common stock (or pre-funded warrants to purchase up to 11,265,086 shares of common stock in lieu thereof) (the “Tranche 2 Warrants”).

We are also offering shares of common stock issuable from time to time upon exercise of our pre-funded warrants, Tranche 1 Warrants and Tranche 2 Warrants. The following is a summary of certain terms and conditions of the pre-funded warrants, Tranche 1 Warrants and Tranche 2 Warrants, which summary is subject in all respect to the provisions contained in the pre-funded warrants, Tranche 1 Warrants and Tranche 2 Warrants. Forms of each of the pre-funded warrants, Tranche 1 Warrants and Tranche 2 Warrants are filed with the SEC as exhibits to our Current Report on Form 8-K, dated October 4, 2023 and incorporated by reference herein.

### **Pre-Funded Warrants**

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

*Exercise Limitations.* A holder will not have the right to exercise any portion of the pre-funded warrant if the holder (together with its affiliates) would beneficially own in excess of 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder may elect, prior to issuance of its pre-funded warrant, to include a provision in such holder’s pre-funded warrant that will permit such holder to elect to increase or decrease such percentage to any other percentage upon at least 61 days’ prior notice from the holder to us.

*Exercise Price.* The exercise price per whole share of our common stock purchasable upon the exercise of the pre-funded warrants is \$0.001 per share of common stock. The exercise price of the pre-funded warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations,

reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

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

*Transferability.* Subject to applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent.

*Exchange Listing.* The pre-funded warrants are not listed, and we do not intend to list the pre-funded warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

*Fundamental Transactions.* In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction.

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

### **Tranche 1 Warrants**

*Exercisability.* The Tranche 1 Warrants are exercisable at any time after their original issuance and will expire 60 days after the later of (i) the date on which we first publicly disclose, whether by press release or Form 8-K filing, the top-line data for our PALISADE-3 study and (ii) the date on which we first publicly disclose, whether by press release or Form 8-K filing, the top-line data for our PALISADE-4 study. The Tranche 1 Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full in immediately available funds for the number of shares of common stock or pre-funded warrants purchased upon such exercise. As an alternative to payment in immediately available funds, the holder may if and only if at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the common stock or pre-funded warrants to the holder, then in its sole discretion, elect to exercise the Tranche 2 Warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock or pre-funded warrants determined according to the formula set forth in the Tranche 1 Warrant. No fractional shares of common stock or pre-funded warrants will be issued in connection with the exercise of a Tranche 1 Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

*Exercise Limitations.* A holder will not have the right to exercise any portion of the Tranche 1 Warrant if the holder (together with its affiliates) would beneficially own in excess of 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Tranche 1 Warrant. However, any holder may elect, prior to issuance of its Tranche 1 Warrant, to include a provision in such holder's Tranche 1 Warrant that will permit such holder to elect to increase or decrease such percentage to any other percentage upon at least 61 days' prior notice from the holder to us.

*Exercise Price.* The exercise price per whole share of our common stock or pre-funded warrants purchasable upon the exercise of the Tranche 1 Warrants is \$5.38 per share of common stock or pre-funded warrant. The exercise price of the Tranche 1 Warrants is subject to appropriate adjustment in the event of certain stock dividends and

distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

*Transferability.* Subject to applicable laws, the Tranche 1 Warrants may be offered for sale, sold, transferred or assigned without our consent.

*Exchange Listing.* The Tranche 1 Warrants are not listed, and we do not intend to list the Tranche 1 Warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

*Fundamental Transactions.* In the event of a fundamental transaction, as described in the Tranche 1 Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Tranche 1 Warrants will be entitled to receive upon exercise of the Tranche 1 Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Tranche 1 Warrants immediately prior to such fundamental transaction.

*Rights as a Stockholder.* Except by virtue of such holder's ownership of shares of our common stock, the holder of a Tranche 1 Warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the Tranche 1 Warrant.

## **Tranche 2 Warrants**

*Form.* The Tranche 2 Warrants will be issued as individual warrant agreements to the investors. You should review the form of Tranche 2 Warrants, which will be filed as an exhibit to a Current Report on Form 8-K, for a complete description of the terms and conditions applicable to the Tranche 2 Warrants.

*Exercisability.* The Tranche 2 Warrants are exercisable at any time after their original issuance and will expire on the five year anniversary of the original issuance. The Tranche 2 Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full in immediately available funds for the number of shares of common stock or pre-funded warrants purchased upon such exercise. As an alternative to payment in immediately available funds, the holder may, in its sole discretion, elect to exercise the Tranche 2 Warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock or pre-funded warrants determined according to the formula set forth in the Tranche 2 Warrant. No fractional shares of common stock or pre-funded warrants will be issued in connection with the exercise of a Tranche 2 Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

*Exercise Limitations.* A holder will not have the right to exercise any portion of the Tranche 2 Warrant if the holder (together with its affiliates) would beneficially own in excess of 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Tranche 2 Warrant. However, any holder may elect, prior to issuance of its Tranche 2 Warrant, to include a provision in such holder's Tranche 2 Warrant that will permit such holder to elect to increase or decrease such percentage to any other percentage upon at least 61 days' prior notice from the holder to us.

*Exercise Price.* The exercise price per whole share of our common stock or pre-funded warrant purchasable upon the exercise of the Tranche 2 Warrants is \$8.877 per share of common stock or pre-funded warrant. The exercise price of the Tranche 2 Warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

*Transferability.* Subject to applicable laws, the Tranche 2 Warrants may be offered for sale, sold, transferred or assigned without our consent.

*Exchange Listing.* The Tranche 2 Warrants are not listed, and we do not intend to list the Tranche 2 Warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

*Fundamental Transactions.* In the event of a fundamental transaction, as described in the Tranche 2 Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Tranche 2 Warrants will be entitled to receive upon exercise of the Tranche 2 Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Tranche 2 Warrants immediately prior to such fundamental transaction.

*Rights as a Stockholder.* Except by virtue of such holder's ownership of shares of our common stock, the holder of a Tranche 2 Warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the Tranche 2 Warrant.

## DESCRIPTION OF PREFERRED STOCK

*This section describes the general terms and provisions of our authorized preferred stock, as well as preferred stock that we may offer from time to time. The applicable prospectus supplement will describe the specific terms of the shares of preferred stock offered through that prospectus supplement, which may differ from the terms we describe below. We will file a copy of the certificate of designation that contains the terms of each new series of preferred stock with the SEC each time we issue a new series of preferred stock, and these certificates of designation will be incorporated by reference into the registration statement of which this prospectus is a part. Each certificate of designation will establish the number of shares included in a designated series and fix the designation, powers, privileges, preferences and rights of the shares of each series as well as any applicable qualifications, limitations or restrictions. A holder of our preferred stock should refer to the applicable certificate of designation, our Charter, and the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) for more specific information.*

We are authorized, subject to limitations prescribed by Nevada law, to issue up to 10.0 million shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations or restrictions.

Our Board may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of the Company and may adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock.

### Shares of Preferred Stock Issuable Pursuant to this Prospectus

Any preferred stock offered pursuant to this prospectus will have the terms described below unless otherwise provided in the prospectus supplement relating to a particular series of preferred stock. You should read the prospectus supplement relating to the particular series of preferred stock being offered for specific terms, including:

- the designation and stated value per share of the preferred stock and the number of shares offered;
- the amount of liquidation preference per share;
- the price at which the preferred stock will be issued;
- the dividend rate, or method of calculation of dividends, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will commence to accumulate;
- any redemption or sinking fund provisions;
- if other than the currency of the United States, the currency or currencies including composite currencies in which the preferred stock is denominated and/or in which payments will or may be payable;
- any conversion provisions;
- any special tax implications of the preferred stock; and
- any other rights, preferences, privileges, limitations and restrictions on the preferred stock.

The preferred stock will, when issued, be fully paid and nonassessable. Unless otherwise specified in the prospectus supplement, each series of preferred stock will rank equally as to dividends and liquidation rights in all respects with

each other series of preferred stock. The rights of holders of shares of each series of preferred stock will be subordinate to those of our general creditors.

*Rank.* Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up of our affairs, rank:

- senior to our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs;
- on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and
- junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.

The term “equity securities” does not include convertible debt securities.

*Dividends.* Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our Board, cash dividends at such rates and on such dates described in the prospectus supplement. Different series of preferred stock may be entitled to dividends at different rates or based on different methods of calculation. The dividend rate may be fixed or variable or both. Dividends will be payable to the holders of record as they appear on our stock books on record dates fixed by our board of directors, as specified in the applicable prospectus supplement.

Dividends on any series of preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement. If our Board does not declare a dividend payable on a dividend payment date on any series of noncumulative preferred stock, then the holders of that noncumulative preferred stock will have no right to receive a dividend for that dividend payment date, and we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment dates. Dividends on any series of cumulative preferred stock will accrue from the date we initially issue shares of such series or such other date specified in the applicable prospectus supplement.

No dividends may be declared or paid or funds set apart for the payment of any dividends on any parity securities unless full dividends have been paid or set apart for payment on the preferred stock. If full dividends are not paid, the preferred stock will share dividends pro rata with the parity securities.

No dividends may be declared or paid or funds set apart for the payment of dividends on any junior securities unless full dividends for all dividend periods terminating on or prior to the date of the declaration or payment will have been paid or declared and a sum sufficient for the payment set apart for payment on the preferred stock.

*Liquidation Preference.* Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, then, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in the prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. Unless otherwise specified in the prospectus supplement, after payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock in the distribution of assets, then the holders of the

preferred stock and all other such classes or series of capital stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions to which they would otherwise be entitled.

Upon any such liquidation, dissolution or winding up and if we have made liquidating distributions in full to all holders of preferred stock, we will distribute our remaining assets among the holders of any other classes or series of capital stock ranking junior to the preferred stock according to their respective rights and preferences and, in each case, according to their respective number of shares. For such purposes, our consolidation or merger with or into any other corporation, trust or entity, or the sale, lease or conveyance of all or substantially all of our property or assets will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

*Redemption.* If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

The prospectus supplement relating to a series of preferred stock that is subject to mandatory redemption will specify the number of shares of preferred stock that shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to all accrued and unpaid dividends thereon to the date of redemption.

*Voting Rights.* Holders of preferred stock will not have any voting rights, except as required by law or as indicated in the applicable prospectus supplement.

Unless otherwise provided for under the terms of any series of preferred stock, no consent or vote of the holders of shares of preferred stock or any series thereof shall be required for any amendment to our restated certificate of incorporation that would increase the number of authorized shares of preferred stock or the number of authorized shares of any series thereof or decrease the number of authorized shares of preferred stock or the number of authorized shares of any series thereof (but not below the number of authorized shares of preferred stock or such series, as the case may be, then outstanding).

*Conversion Rights.* The terms and conditions, if any, upon which any series of preferred stock is convertible into our common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

*Transfer Agent and Registrar.* The transfer agent and registrar for the preferred stock will be set forth in the applicable prospectus supplement.

## DESCRIPTION OF WARRANTS

*The following description, together with the additional information we include in any applicable prospectus supplements or free writing prospectus, summarizes the material terms and provisions of the warrants that we may offer under this prospectus. Warrants may be offered independently or together with common stock or preferred stock and/or debt securities offered by any prospectus supplement or free writing prospectus, and may be attached to or separate from those securities. While the terms we have summarized below will generally apply to any future warrants we may offer under this prospectus, we will describe the particular terms of any warrants that we may offer in more detail in the applicable prospectus supplement or free writing prospectus. The terms of any warrants we offer under a prospectus supplement or free writing prospectus may differ from the terms we describe below.*

We may issue warrants to purchase common stock, preferred stock or debt securities. We may offer warrants separately or together with one or more additional warrants, common stock, preferred stock or debt securities, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the accompanying prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the expiration date of the warrants. The applicable prospectus supplement will also describe the following terms of any warrants:

- the specific designation and aggregate number of, and the offering 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 date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants are to be sold separately or with other securities as parts of units;
- whether the warrants will be issued 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;
- the designation and terms of any equity securities purchasable upon exercise of the warrants;
- the designation, aggregate principal amount, currency and terms of any debt securities that may be purchased upon exercise of the warrants;
- if applicable, the designation and terms of the preferred stock with which the warrants are issued and the number of warrants issued with each security;
- if applicable, the date from and after which any warrants issued as part of a unit and the related debt securities, preferred stock, or common stock will be separately transferable;
- the number of shares of common stock, preferred stock purchasable upon exercise of a warrant and the price at which those shares may be purchased;
- 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, and other provisions for changes to or adjustment in the exercise price of, the warrants, if any;
- any redemption or call provisions; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange or exercise of the warrants.

In the event that we issue warrants, we may issue the warrants under a warrant agreement, which, if applicable, we will enter into with a warrant agent to be selected by us. Forms of these warrant agreements and forms of the warrant certificates representing the warrants, and the complete warrant agreements and forms of warrant certificates containing the terms of the warrants being offered, will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC. We use the term “warrant agreement” to refer to any of these warrant agreements. We use the term “warrant agent” to refer to the warrant agent under any of these warrant agreements. The warrant agent will act solely as an agent of ours in connection with the warrants and will not act as an agent for the holders or beneficial owners of the warrants.

## DESCRIPTION OF OUR UNITS

*This section outlines some of the provisions of the units and the unit agreements. This information may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units will be described in the applicable prospectus supplement. If so described in a particular prospectus supplement, the specific terms of any series of units may differ from the general description of terms presented below.*

We may issue units comprised of one or more of the other securities that may be offered under this prospectus, in any combination. The following, together with the additional information we may include in the applicable prospectus supplement, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms summarized below will apply generally to any units we may offer, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement.

Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately at any time, or at any time before a specified date.

Any applicable prospectus supplement will describe:

- the material terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any material provisions relating to the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units;
- any special tax implications of the units; and
- any material provisions of the governing unit agreement that differ from those described above.

## **DESCRIPTION OF CERTAIN PROVISIONS OF NEVADA LAW AND OUR CHARTER AND BYLAWS**

### **Transactions with Interested Persons**

Under the Nevada Revised Statutes (the “NRS”) a transaction with the Company (i) in which a Company director or officer has a direct or indirect interest, or (ii) involving another corporation, firm or association in which one or more of the Company’s directors or officers are directors or officers of the corporation, firm or association or have a financial interest in the corporation firm or association, is not void or voidable solely because of the director’s or officer’s interest or common role in the transaction if any one of the following circumstances exists:

- the fact of the common directorship, office or financial interest is known to our Board or a committee of our Board and a majority of disinterested directors on the Board (or on the committee) authorize, approved or ratify the transaction in good faith;
- the fact of the common directorship, office or financial interest is known to the stockholders and stockholders holding a majority of the shares, including shares held by the common or interested directors or officers, authorize, approve or ratify the transaction in good faith;
- the fact of the common directorship, office or financial interest is not known to the director or officer at the time the transaction is brought to the Board for action; or
- the transaction is fair to the Company at the time it is authorized or approved.

### **Anti-Takeover Provisions**

Our Charter and Nevada law include certain provisions which may have the effect of delaying or deterring a change in control or in our management or encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include authorized blank check preferred stock, restrictions on business combinations, and the availability of authorized but unissued common stock.

### **Combination with Interested Stockholders Statute**

Sections 78.411 to 78.444 of the NRS, which apply to any Nevada corporation which has at least 200 stockholders of record and is publicly traded, including us, prohibits an “interested stockholder” from entering into specified types of business “combinations” with the Nevada corporation for two years, unless certain conditions are met. A “combination” includes:

- any merger of the corporation or any subsidiary of the corporation with an “interested stockholder,” or any other entity, whether or not itself an “interested stockholder,” which is, or after and as a result of the merger would be, an affiliate or associate of an “interested stockholder;”
- any sale, lease, exchange, mortgage, pledge, transfer, or other disposition in one transaction, or a series of transactions, to or with an “interested stockholder” or any affiliate or associate of an “interested stockholder,” of assets of the corporation or any subsidiary:
  - having an aggregate market value equal to more than 5% of the aggregate market value of the corporation’s assets, determined on a consolidated basis;
  - having an aggregate market value equal to more than 5% of the aggregate market value of all outstanding voting shares of the corporation; or

- representing more than 10% of the earning power or net income, determined on a consolidated basis, of the corporation; or
- the issuance or transfer by the corporation or any subsidiary, of any shares of the corporation or any subsidiary to an “interested stockholder” or any affiliate or associate of an “interested stockholder,” having an aggregate market value equal to 5% or more of the aggregate market value of all of the outstanding voting shares of the corporation, except under the exercise of warrants or rights to purchase shares offered, or a dividend or distribution paid or made, pro rata to all stockholders of the resident domestic corporation;
- the adoption of any plan, or proposal for the liquidation or dissolution of the corporation, under any agreement, arrangement or understanding, with the “interested stockholder,” or any affiliate or associate of the “interested stockholder;”
- if any of the following actions occurs:
  - a reclassification of the corporation’s securities, including, without limitation, any splitting of shares, share dividend, or other distribution of shares with respect to other shares, or any issuance of new shares in exchange for a proportionately greater number of old shares;
  - recapitalization of the corporation;
  - merger or consolidation of the corporation with any subsidiary; or
  - any other transaction, whether or not with or into or otherwise involving the interested stockholder,
- under any agreement, arrangement or understanding, whether or not in writing, with the interested stockholder or any affiliate or associate of the interested stockholder, which has the immediate and proximate effect of increasing the proportionate share of the outstanding shares of any class or series of voting shares or securities convertible into voting shares of the corporation or any subsidiary of the corporation which is beneficially owned by the interested stockholder or any affiliate or associate of the interested stockholder, except as a result of immaterial changes because of adjustments of fractional shares; or
- any receipt by an “interested stockholder” or any affiliate or associate of an “interested stockholder,” except proportionately as a stockholder of the corporation, of the benefit of any loan, advance, guarantee, pledge or other financial assistance or any tax credit or other tax advantage provided by or through the corporation.

An “interested stockholder” is a person who is:

- directly or indirectly, the beneficial owner of 10% or more of the voting power of the outstanding voting shares of the corporation; or
- an affiliate or associate of the corporation, which at any time within two years immediately before the date in question was the beneficial owner, directly or indirectly, of 10% or more of the voting power of the then outstanding shares of the corporation.

A corporation to which the Combinations with Interested Stockholders Statute applies may not engage in a “combination” within two years after the interested stockholder first became an interested stockholder, unless the combination meets all of the requirements of the corporation’s articles of incorporation and (i) the combination or the transaction by which the person first became an interested stockholder is approved by the board of directors before the person first became an interested stockholder, or (ii)(a) the combination is approved by the board of directors and (b) at or after that time, the combination is approved at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of the stockholders representing at least 60% of the

outstanding voting power of the corporation not beneficially owned by the interested stockholder or the affiliates or associates of the interested stockholder. If this approval is not obtained, the combination may be consummated after the two year period expires if either (i)(a) the combination or transaction by which the person first became an interested stockholder is approved by the board of directors before such person first became an interested stockholder, (b) the combination is approved by a majority of the outstanding voting power of the corporation not beneficially owned by the interested stockholder or any affiliate or associate of the interested stockholder, or (c) the combination otherwise meets the requirements of the Combination with Interested Stockholders statute. Alternatively, a combination with an interested stockholder engaged in more than 2 years after the date the person first became an interested stockholder may be permissible if the aggregate amount of cash and the market value of consideration other than cash to be received by holders of shares of common stock and holders of any other class or series of shares meets the minimum requirements set forth in the statute, and prior to the completion of the combination, except in limited circumstances, the interested stockholder has not become the beneficial owner of additional voting shares of the corporation.

### **Acquisition of Controlling Interest Statute**

In addition, Nevada's "Acquisition of Controlling Interest Statute," prohibits an acquiror, under certain circumstances, from voting shares of a target corporation's stock after crossing certain threshold ownership percentages, unless the acquiror obtains the approval of the target corporation's stockholders. Sections 78.378 to 78.3793 of the NRS only apply to Nevada corporations with at least 200 stockholders, including at least 100 record stockholders who are Nevada residents, that do business directly or indirectly in Nevada and whose articles of incorporation or bylaws in effect ten days following the acquisition of a controlling interest by an acquiror do not prohibit its application.

We do not intend to "do business" in Nevada within the meaning of the Acquisition of Controlling Interest Statute. Further, our Bylaws contain a specific opt out from the statute. Therefore, we believe it is unlikely that this statute will apply to us. The statute specifies three thresholds:

- at least one-fifth but less than one-third;
- at least one-third but less than a majority; and
- a majority or more, of the outstanding voting power.

Once an acquiror crosses one of these thresholds, shares which it acquired in the transaction taking it over the threshold (or within 90 days preceding the date thereof) become "control shares" which could be deprived of the right to vote until a majority of the disinterested stockholders restore that right. A special stockholders' meeting may be called at the request of the acquiror to consider the voting rights of the acquiror's shares. If the acquiror requests a special meeting and gives an undertaking to pay the expenses of said meeting, then the meeting must take place no earlier than 30 days (unless the acquiror requests that the meeting be held sooner) and no more than 50 days (unless the acquiror agrees to a later date) after the delivery by the acquiror to the corporation of an information statement which sets forth the range of voting power that the acquiror has acquired or proposes to acquire and certain other information concerning the acquiror and the proposed control share acquisition.

If no such request for a stockholders' meeting is made, consideration of the voting rights of the acquiror's shares must be taken at the next special or annual stockholders' meeting. If the stockholders fail to restore voting rights to the acquiror, or if the acquiror fails to timely deliver an information statement to the corporation, then the corporation may, if so provided in its articles of incorporation or bylaws, call certain of the acquiror's shares for redemption at the average price paid for the control shares by the acquiror.

Our Charter and our Bylaws do not currently permit us to redeem an acquiror's shares under these circumstances. The Acquisition of Controlling Interest Statute also provides that in the event the stockholders restore full voting rights to a holder of control shares that owns a majority of the voting stock, then all other stockholders who do not

vote in favor of restoring voting rights to the control shares may demand payment for the “fair value” of their shares as determined by a court in dissenter’s rights proceeding pursuant to Chapter 92A of the NRS.

## PLAN OF DISTRIBUTION

We may sell securities:

- through underwriters;
- through dealers;
- through agents;
- directly to purchasers; or
- through a combination of any of these methods of sale.

We may also sell equity securities covered by this registration statement in an “at the market offering” as defined in Rule 415 under the Securities Act of 1933, as amended (the “Securities Act”). Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of The Nasdaq Capital Market or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- to or through a market maker other than on The Nasdaq Capital Market or such other securities exchanges or quotation or trading services.

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing security holders. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act, and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis.

The distribution of the securities 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 with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name of the agent or any underwriters;
- the public offering or purchase price and the proceeds we will receive from the sale of the securities;
- any discounts and commissions to be allowed or re-allowed or paid to the agent or underwriters;
- all other items constituting underwriting compensation;
- any discounts and commissions to be allowed or re-allowed or paid to dealers; and
- any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

If a dealer is utilized in the sale of the securities in respect of which this prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Remarketing firms, agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters 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 the date stated in the prospectus supplement. 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 the 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 not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, and/or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than two scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the second business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle more than two scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

## **LEGAL MATTERS**

Certain legal matters in connection with this offering will be passed upon for us by Latham & Watkins LLP, Chicago, Illinois. The validity of the securities offered hereby will be passed upon for us by Woodburn and Wedge, Reno, Nevada. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

## **EXPERTS**

WithumSmith+Brown, PC (“Withum”) our independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended March 31, 2023, as set forth in their report, which is incorporated by reference in this prospectus. The report for Vistagen Therapeutics, Inc. includes an explanatory paragraph about the existence of substantial doubt concerning its ability to continue as a going concern. Our financial statements are incorporated by reference in reliance on Withum’s report, given on their authority as experts in accounting and auditing.

# Vistagen

**Up to \$175,000,000  
Common Stock**

**PROSPECTUS SUPPLEMENT**

**Jefferies**

**June 17, 2025**