

VistaGen Therapeutics, Inc.  
Form 424B5  
February 25, 2019

Filed pursuant to Rule 424(b)(5)  
Registration No. 333-215671

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 25, 2019

PRELIMINARY PROSPECTUS SUPPLEMENT  
(To Prospectus Dated July 27, 2017)

Shares

Common Stock

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We are offering \_\_\_\_\_ shares of our common stock pursuant to this prospectus supplement and accompanying prospectus.

Our common stock is listed on the Nasdaq Capital Market under the symbol "VTGN." On February 22, 2019, the closing price of our common stock on the Nasdaq Capital Market was \$1.38 per share.

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Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page S-10 of this prospectus supplement and under similar headings in the documents incorporated by reference into this prospectus supplement.

|   | Per Share | Total |
|---|-----------|-------|
| Public Offering Price                                   | \$        | \$    |
| Underwriting Discounts and Commissions (1)              | \$        | \$    |
| Proceeds to VistaGen Therapeutics, Inc. before expenses | \$        | \$    |

(1)  
See "Underwriting" for additional information regarding underwriting compensation.

The underwriters may also purchase up to an additional \_\_\_\_\_ shares of common stock from us, at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus supplement.

As of February 25, 2019, the aggregate market value of our outstanding common stock held by non-affiliates was \$54,393,471, based on 31,120,465 shares of outstanding common stock, of which 30,905,381 shares are held by non-affiliates, and a per share price of \$1.76, which was the closing price of our common stock as quoted on the

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Nasdaq Capital Market on February 12, 2019. We have not offered any securities pursuant to General Instruction I.B.6. of Form S-3 in the prior 12-month period that ends on and includes the date of this prospectus supplement.

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.

Delivery of the shares is expected to be made on or about \_\_\_\_\_, 2019.

William Blair

\_\_\_\_\_  
The date of this prospectus supplement is \_\_\_\_\_, 2019.



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## ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus form a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the SEC) utilizing a “shelf” registration process. This document is in two parts. The first part is the prospectus supplement, which describes the specific terms of this offering. The second part, the accompanying prospectus, provides more general information about the securities we may offer from time to time, some of which may not apply to the securities offered by this prospectus supplement. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. Before you invest, you should carefully read this prospectus supplement, the accompanying prospectus, all information incorporated by reference herein and therein, and the additional information described under “Where You Can Find More Information” on page S-33 of this prospectus supplement. These documents contain information you should consider when making your investment decision. This prospectus supplement may add, update or change information contained in the accompanying prospectus. To the extent that any statement that we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference therein, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference therein.

Neither we nor the underwriters have authorized any other person to provide you with any information that is different. We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the securities in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and/or the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus supplement and/or 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.

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

Unless the context otherwise requires, references in this prospectus supplement to “we”, “us” and “our” refer to VistaGen Therapeutics, Inc.



## PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about our company, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus, in the documents we incorporate by reference and in any free writing prospectus that we have authorized for use in connection with this offering. This summary is not complete and does not contain all the information that you should consider before investing in our securities. You should read this entire prospectus supplement and the accompanying prospectus carefully, including the “Risk Factors” contained in this prospectus supplement, the accompanying prospectus and the financial statements and the notes thereto incorporated by reference in this prospectus supplement and the accompanying prospectus and the other information that we incorporated by reference herein, including our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q we file from time to time.

### Business Overview

We are a clinical-stage biopharmaceutical company focused on developing new generation medicines for multiple central nervous system (CNS) diseases and disorders with high unmet need. We believe each of our CNS pipeline candidates, AV-101, PH94B and PH10, has the potential to be administered at home and provide rapid-onset therapeutic benefits without psychological or other side effects and safety concerns associated with many current and potential new generation medications for CNS diseases and disorders, such as major depressive disorder (MDD) and social anxiety disorder (SAD), affecting millions of individuals in the United States and foreign markets. Each drug candidate in our pipeline is either currently in or has successfully completed Phase 2 clinical development. AV-101, our oral NMDA receptor glycine B antagonist, is in Phase 2 development, initially as an adjunctive treatment of MDD. The FDA has granted Fast Track designation for development of AV-101 as both a potential adjunctive treatment of MDD and as a non-opioid treatment for neuropathic pain. PH94B, our potentially first-in-class, rapid-onset neuroactive steroid nasal spray for as-needed (PRN) treatment of SAD, has completed a successful Phase 2 clinical program, a successful pilot Phase 3 study and is now being prepared for pivotal Phase 3 clinical development, with potential to be the first FDA-approved PRN treatment of SAD. PH10, our potentially first-in-class, rapid-onset neuroactive steroid nasal spray for MDD, has completed an initial successful exploratory Phase 2 clinical study and is now being prepared for a multi-dose follow-on Phase 2 clinical study in MDD.

### AV-101

AV-101, an investigational prodrug candidate in Phase 2 clinical development, is an orally bioavailable NMDAR GlyB (N-methyl-D-aspartate receptor glycine B) antagonist in development as a potential new treatment for multiple CNS indications with high unmet need, including MDD, neuropathic pain (NP), levodopa-induced dyskinesia associated with Parkinson’s disease therapy (PD LID) and suicidal ideation (SI). In two NIH-funded AV-101 Phase 1 clinical safety studies, AV-101 was well tolerated in healthy subjects at all doses tested, in both single-ascending and multiple-ascending dose studies, without causing any observed psychological or sedative side effects. The United States Food and Drug Administration (FDA) has granted Fast Track designation for development of AV-101 as a potential new treatment for adjunctive treatment of MDD and for treatment of NP.

### Major Depressive Disorder

Major depressive disorder is a serious biologically-based mood disorder, affecting approximately 16 million adults in the United States according to the U.S. National Institute of Mental Health (the NIMH). The CDC estimates that one in four women and one in six men in the United States have been diagnosed with MDD. Individuals diagnosed with MDD exhibit depressive symptoms, such as a depressed mood or a loss of interest or pleasure in daily activities, for more than a two-week period, as well as impaired social, occupational, educational or other important functioning which has a negative impact on their quality of life. According to the U.S. Centers for Disease Control and Prevention



(CDC), about one in eight Americans aged 12 and over takes an FDA-approved antidepressant, and there are an estimated 11.6 million drug-treated patients suffering from MDD. While current FDA-approved antidepressants are widely used, the STAR\*D study, the largest clinical trial conducted in depression to date, found that approximately two-thirds of patients with MDD do not respond to their initial antidepressant treatment, of which approximately 5.1 million patients remain resistant to treatment following the second antidepressant treatment. According to the NIMH, inadequate response to current antidepressants is among the key reasons MDD is a leading public health concern in the United States, creating a significant unmet medical need for new agents with fundamentally different mechanisms of action.

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We believe oral AV-101 has potential for multiple applications in global depression markets if successfully developed and approved. AV-101 has potential as an adjunctive therapy to (i) augment current antidepressants approved by the FDA for patients with MDD who have an inadequate response to standard antidepressants (SSRIs and SNRIs) and (ii) prevent relapse of MDD following successful intravenous or intranasal treatment with ketamine hydrochloride (ketamine), a member of a class of drugs that block NMDA receptor activity. Given its excellent tolerability profile, we believe it may also have potential as a first-line monotherapy conveniently administered at home. Ketamine is an FDA-approved, rapid-acting general anesthetic currently administered only by intravenous or intramuscular injection. The off-label use of ketamine in treatment-resistant depression (TRD), defined as those patients who have failed at least two prior treatment attempts involving current antidepressants, has been studied in numerous clinical trials conducted by depression experts at Yale University and other academic institutions, as well as at the NIMH, including by Dr. Carlos Zarate, Jr., the NIMH's Chief of Experimental Therapeutics & Pathophysiology Branch and of the Section on Neurobiology and Treatment of Mood and Anxiety Disorders. In randomized, placebo-controlled, double blind clinical trials reported by Dr. Zarate and others at the NIMH, a single sub-anesthetic dose of ketamine (0.5 mg/kg over 40 minutes) produced robust and rapid (within twenty-four hours) antidepressant effects in MDD patients who had not responded to at least two prior treatment attempts involving standard antidepressants. These results were in sharp contrast to the very slow-onset activity of standard antidepressants, which usually require many weeks or more of chronic usage to achieve similar antidepressant effects. We believe AV-101 may have potential to deliver fast-acting antidepressant effects similar to ketamine, but as an oral therapy on an at-home basis, without the requirement for administration in a medical setting or the required use of needles, and without causing psychological, sedative or other side effects and safety concerns associated with ketamine and certain other fast-acting newer generation antidepressant drug candidates.

AV-101 is currently in Phase 2 clinical development in the United States for MDD. ELEVATE is our ongoing Phase 2 multi-center, multi-dose, double blind, placebo-controlled clinical study to evaluate the efficacy and safety of AV-101 as a new generation adjunctive treatment of MDD in adult patients with an inadequate therapeutic response to current FDA-approved antidepressants (the ELEVATE Study). Dr. Maurizio Fava, Professor of Psychiatry at Harvard Medical School and Director, Division of Clinical Research, Massachusetts General Hospital (MGH) Research Institute, is the Principal Investigator of the ELEVATE Study assisting our internal team, which is led by Mark Smith, MD, PhD, our Chief Medical Officer. Dr. Fava was the co-Principal Investigator with Dr. A. John Rush of the STAR\*D study, the findings of which were published in journals such as the New England Journal of Medicine (NEJM) and the Journal of the American Medical Association (JAMA).

AV-101 is also the subject of a small randomized, double-blind, placebo-controlled cross-over Phase 2 clinical study being conducted and funded by the NIMH, pursuant to our Cooperative Research and Development Agreement (CRADA) with the NIMH (the NIMH Study). Dr. Carlos Zarate, Jr., Chief of the NIMH's Experimental Therapeutics & Pathophysiology Branch and its Section on Neurobiology and Treatment of Mood and Anxiety Disorders, is acting as the Principal Investigator for the NIMH Study. This trial is focused on the pharmacodynamic and potential therapeutic effects in such patients using standard measurements of clinical responses and measurement of responses of a number of biomarkers associated with engagement of the NMDA receptor thought to be associated with clinical response. Dr. Zarate and the NIMH were among the first in the U.S. to conduct clinical studies in MDD patients with inadequate responses to multiple current FDA-approved antidepressants that demonstrated the robust, fast-acting antidepressant effects of ketamine within twenty-four hours of a single sub-anesthetic dose administered by IV injection.

The FDA has granted Fast Track designation for development of AV-101 as a potential new adjunctive treatment of MDD.





## Suicidal Ideation

According to the World Health Organization (WHO), every year approximately 800,000 people worldwide take their own life and many more attempt suicide. The CDC views suicide as a major public health concern in the United States as rates of suicide have been increasing for both men and women and across all age groups. Suicide is the 10th leading cause of death in the U.S. and is one of just three leading causes that are on the rise. According to experts in the field of suicidal ideation, characterized as suicidal thoughts and behavior, the number of Americans who die by suicide is, since 2010, higher than those who die in motor vehicle accidents. People of all genders, ages, and ethnicities can be at risk for suicide. Suicidal ideation is complex and there is no single cause. The NIMH attributes many different factors contribute to someone making a suicide attempt, including, but not limited to, depression, other mental health disorders or substance abuse disorder. Additionally, according to reports released by the United States Department of Veterans Affairs (VA), the U.S. Military Veteran population is at significantly higher risk for suicide than the general population.

We are collaborating with Baylor College of Medicine (Baylor) and the VA on a small Phase 1b clinical trial of AV-101 involving healthy volunteer U.S. Military Veterans from either Operation Enduring Freedom, Operation Iraqi Freedom or Operation New Dawn (the Baylor Study). The Baylor Study is a randomized, double-blind, placebo-controlled cross-over study designed as a target engagement study as the first-step in our plans to test potential anti-suicidal effects of AV-101 in U.S. Military Veterans. Dr. Marijn Lijffijt of Baylor is the Principal Investigator of the Baylor Study. VistaGen and the VA entered into a Material Transfer Cooperative Research and Development Agreement (MT CRADA) regarding clinical trial material for the Baylor Study. Government funding from the VA is being provided for substantially all other study costs.

## Neuropathic Pain

Neuropathic pain, a complex, chronic pain state affecting millions of Americans, results from problems with signals from nerves. The American Chronic Pain Association has identified various causes of NP, including tissue injury, nerve damage or disease, diabetes, infection, toxins, certain types of drugs, such as antivirals and chemotherapeutic agents, certain cancers, and even chronic alcohol intake. With NP, damaged, dysfunctional or injured nerve fibers send incorrect signals to other pain centers and impact nerve function both at the site of injury and areas around the injury. Unfortunately, many NP treatments on the market today have side effects, including anxiety, depression, dizziness, cognitive impairment and/or sedation.

The effects of AV-101 as a potential new treatment for NP were assessed in published peer-reviewed preclinical studies involving four well-established models of pain. In these studies, AV-101 was observed to have robust, dose-dependent anti-nociceptive effects, as measured by dose-dependent reversal of NP in the Chung (nerve ligation), formalin and carrageenan thermal models in rats, and was well-tolerated. The publication, titled: "Characterization of the effects of L-4-chlorokynurenine on nociception in rodents," by lead author, Tony L. Yaksh, Ph.D., Professor in Anesthesiology at the University of California, San Diego, was published in *The Journal of Pain* in April 2017 (*J Pain*. 18:1184-1196, 2017)). Gabapentin, an FDA-approved anticonvulsant, has been associated with sedation and mild cognitive impairment in third party literature and is often prescribed for NP. Other commonly prescribed medications for NP include drugs targeting opioid receptors in the brain. Unfortunately, misuse of such drugs can lead to a significantly increased risk of addiction, and, we believe, their therapeutic utility for neuropathic pain is unclear. We are planning to advance AV-101 into an exploratory Phase 2a clinical study, subject to securing sufficient capital, to assess its potential as a new oral non-opioid treatment to reduce debilitating NP, as well as its potential to avoid sedative side effects and cognitive impairment that have been observed in third party literature to be associated with other NP treatments, and to reduce the risk of addiction associated with pain medications targeting opioid receptors.

The FDA has granted Fast Track designation for development of AV-101 as a potential new, non-opioid treatment of NP.

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## Parkinson's Disease Levodopa-Induced Dyskinesia

Parkinson's disease (PD) is a chronic, progressive motor disorder that causes tremors, rigidity, slowed movements and postural instability. The most commonly-prescribed treatments for PD are levodopa-based therapies. Unfortunately, abnormal involuntary movements, called dyskinesias, gradually emerge as a prominent side-effect in response to previously beneficial doses of levodopa. PD LID can be severely disabling, rendering patients unable to perform routine daily tasks.

In a preclinical monkey model of PD, AV-101 resulted in a 30% reduction of the mean dyskinesia score associated with PD LID. Importantly, AV-101 did not reduce the anti-parkinsonian therapeutic benefit of levodopa. Moreover, the duration of levodopa response and delay to levodopa effect were not affected by treatment with AV-101. We believe AV-101 has potential to reduce troublesome dyskinesia experienced by many patients with PD as a result of their levodopa therapy, but without interfering with levodopa or causing side effects resulting from certain current PD LID treatments, such as amantadine, including hallucinations, dizziness, dry mouth, swelling of legs and feet, constipation and falls. We are planning to advance clinical development of AV-101 for PD LID in an exploratory Phase 2a clinical study, subject to securing sufficient capital, as our next initiative in PD LID.

## Intellectual Property

We have developed a portfolio of intellectual property (IP) assets around AV-101, which involves obtaining patents and protecting trade secrets. In addition to these IP assets, we plan to seek regulatory exclusivity for the use of AV-101, with initial emphasis on treating depression as our lead indication in clinical development. These two approaches to obtaining exclusivity exist separately in the US and in several other countries and would be expected to provide complementary protection in countries where they are available.

AV-101 was not itself patent protected as a chemical compound and a patent, describing pharmaceutical compositions made with AV-101, and which was formerly licensed by VistaGen, has expired. As part of our strategy to seek and secure broad commercial exclusivity for AV-101, we primarily have pursued patents related to novel therapeutic uses of AV-101 in major pharmaceutical markets, including the U.S., Europe, and other selected major pharmaceutical markets, including China, Japan and Korea. For example, some of our granted AV-101 patents in the U.S. and Europe, and our pending patent applications in the U.S. and multiple additional markets relate to the treatment of depression and others relate to the treatment of additional CNS diseases and disorders, including, among others, Parkinson's disease levodopa-induced dyskinesia and the management of certain types of neuropathic pain including, but not limited to hyperalgesia.

In addition to our U.S. patent relating to the treatment of depression with AV-101, we were successful in the U.S. in obtaining a patent related to certain specific oral unit dose formulations of AV-101 with a similar expression in the claims referring to efficacy in treating depression. We also have been granted patents and are pursuing pending applications that involve methods of production of AV-101. We expect that our granted patents will not begin to expire until 2034, and we plan to seek patent term extensions in places, such as the U.S., Europe and Japan, where they are available.

As mentioned above, a complementary component of our plan is to obtain regulatory exclusivity for approved therapeutic indications for AV-101. For example, the FDA's New Drug Product Exclusivity is available for NCEs such as AV-101, which have not been previously approved by the FDA. This provides the holder of an FDA-approved NDA with up to five years of protection from competition in the U.S. marketplace from generic versions of the same product. As applicable, we will pursue similar types of regulatory exclusivity in other regions, such as Europe, and in certain other countries.

There is no guarantee that we will be successful in obtaining any additional patents related to AV-101 in the U.S., Europe, or any other country, or that if we are successful in obtaining any patents that we would also be successful in protecting those patents against challengers or in enforcing them to stop infringement. Outside the U.S. and Europe, we are pursuing patent rights in a limited number of countries that we believe are the major markets for pharmaceuticals where having patent rights should substantially facilitate commercialization of AV-101.

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## PH94B

In September 2018, we acquired, on a non-cash basis through the issuance of unregistered shares of our common stock, a license from Pherin Pharmaceuticals, Inc. (Pherin) giving us the exclusive worldwide rights to develop and commercialize PH94B, a rapid-onset neurosteroid nasal spray with potential to be the first FDA-approved PRN treatment for SAD.

PH94B is a synthetic investigational neuroactive steroid for which Phase 2 clinical data showed that the product was well tolerated and demonstrated a rapid onset of effect, as measured by the Subjective Units of Distress (SUD) and the Liebowitz Social Anxiety Scale (LSAS) in SAD, a social phobia that affects as many as 22 million American adults according to the NIMH. SAD is characterized by an intense and persistent fear of embarrassment, humiliation, judgment and rejection in everyday social or performance situations, leading to avoidance of anxiety and fear-producing social situations when possible. SAD has a significant impact on the individual's employment, social activities and overall quality of life. According to the NIMH, an estimated 7% of the U.S. population suffers from SAD. SAD is commonly treated chronically with antidepressants, which have slow onset of effect (several weeks or months) and known side effects that may make them unattractive to individuals intermittently or episodically affected by SAD.

Administered as a nasal spray, PH94B is designed to act locally on peripheral nasal chemosensory receptors to trigger rapid activation of the limbic system areas of the brain associated with SAD. In prior clinical studies, PH94B demonstrated rapid (10-15 minutes) anxiety reduction for subjects with SAD, measured by the SUD and LSAS, and was not observed to be addictive, sedative or have other adverse events. Benzodiazepines and beta blockers, which are currently prescribed off-label to treat SAD, have been found in third party literature to have addictive or sedative properties, and have other adverse effects when used to treat SAD.

Based on clinical studies in which PH94B was observed to have rapid onset of effect on anxiety reduction, as measured by the SUD and LSAS, and to be well-tolerated, and in light of its novel route of administration and on-demand dosing design, we believe PH94B has potential to be the first FDA-approved medication for long-term PRN treatment of individuals with SAD.

## PH10

In October 2018, we acquired, on a non-cash basis through the issuance of unregistered shares of our common stock, a second license from Pherin giving us the exclusive worldwide rights to develop and commercialize PH10, a synthetic investigational neuroactive steroid nasal spray for which exploratory Phase 2 clinical data showed that it was well tolerated and demonstrated a rapid onset of antidepressant effects. PH10 is designed to bind locally on nasal chemosensory receptors and trigger responses in the hypothalamus, amygdala, prefrontal cortex and hippocampus affecting depression. It is believed that PH10 may initiate nerve impulses that follow defined pathways to directly affect brain function. In a small exploratory Phase 2a study in patients with MDD, PH10 showed a rapid-onset antidepressant effect, as measured by the Hamilton Depression Rating Scale (HAM-D), without psychological side effects or safety concerns. PH10 is a new generation antidepressant with a mechanism of action that is fundamentally different from all current antidepressants. As with AV-101, we believe PH10 intranasal has potential for multiple applications in global depression markets, as a stand-alone first line therapy and as an adjunctive therapy, if successfully developed and approved. In addition to its potential as a first-line monotherapy administered conveniently at-home, we believe PH10 has potential as an adjunctive therapy to (i) augment current antidepressants approved by the FDA for patients with MDD who have an inadequate response to standard antidepressants (SSRIs and SNRIs), and (ii) prevent relapse of MDD following successful treatment, with either intravenously- or intranasally-administered ketamine.

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## VistaStem

In addition to our CNS business, we have two additional programs through our wholly-owned subsidiary VistaGen Therapeutics, Inc., a California corporation, dba VistaStem Therapeutics (VistaStem). VistaStem is focused on applying stem cell technology to rescue, develop and commercialize (i) proprietary new chemical entities (NCEs) for CNS and other diseases, and (ii) regenerative medicine (RM) involving stem cell-derived blood, cartilage, heart and liver cells. Our internal drug rescue programs are designed to utilize CardioSafe 3D, our customized cardiac bioassay system, to develop small molecule NCEs for our CNS pipeline or out-licensing. We have exclusively sublicensed to BlueRock Therapeutics LP, a next generation cell therapy and RM company established by Bayer and Versant Ventures (BlueRock Therapeutics), rights to certain proprietary technologies relating to the production of cardiac stem cells for the treatment of heart disease (the BlueRock Agreement). In a manner similar to the BlueRock Agreement, we may pursue additional VistaStem collaborations or licensing transactions involving stem cell-derived blood, cartilage, and/or liver cells RM applications.

## Corporate Information

VistaGen Therapeutics, Inc., a Nevada corporation, is the parent of VistaGen Therapeutics, Inc. (dba VistaStem Therapeutics, Inc.), a wholly owned California corporation founded in 1998. 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

|  |   |
|--|---|
| Issuer   | VistaGen Therapeutics, Inc.   |
| Common Stock Offered by Us                                     | _____ shares (or _____ shares if the underwriters exercise their option to purchase additional shares in full).   |
| Option to Purchase Additional Shares                           | We have granted the underwriters a 30-day option to purchase up to _____ additional shares of common stock at the public offering price, less underwriting discounts and commissions.   |
| Common Stock to be Outstanding Immediately After this Offering | _____ shares (or _____ shares if the underwriters exercise their option to purchase additional shares in full).   |
| Use of Proceeds  | We currently intend to use the net proceeds from the sale of the securities offered by this prospectus supplement to fund continued development of our AV-101, PH94B and PH10 programs, and for general research and development, working capital and general corporate purposes. See “Use of Proceeds” on page S-14.   |
| Risk Factors   | Investing in our common shares involves a high degree of risk. For a discussion of factors that you should consider before buying our securities, see the information under “Risk Factors” in this prospectus supplement and under similar headings in the documents incorporated by reference into this prospectus supplement.<br><br>Our common stock is listed on the Nasdaq Capital Market under the symbol “VTGN.” |
| Listing  | There is no established public trading market for the warrants being offered by us in this offering and we do not intend to have the warrants listed on a national securities exchange or any other recognized trading system in the future. Without an active market, the liquidity of any warrants sold by means of this prospectus supplement and accompanying prospectus will be limited.                           |



The number of shares of our common stock that will be outstanding immediately after the offering is based on 31,120,465 shares outstanding as of February 20, 2019. Unless we specifically state otherwise, the share information in this prospectus supplement excludes:

6,628,588 shares of common stock reserved for issuance upon exercise of outstanding stock options under our Amended and Restated 2016 Stock Incentive Plan, with a weighted average exercise price of \$1.48 per share;

2,607,162 shares of common stock reserved for future issuance in connection with future grants under our Amended and Restated 2016 Stock Incentive Plan;

21,499,955 shares of common stock that have been reserved for issuance upon exercise of outstanding warrants, with a weighted average exercise price of \$2.54 per share;

750,000 shares of common stock reserved for issuance upon conversion of 500,000 shares our Series A Preferred Stock (Series A Preferred);

1,160,240 shares of common stock reserved for issuance upon conversion of 1,160,240 shares of our Series B 10% Convertible Preferred Stock (Series B Preferred) and 2,344,720 shares of common stock reserved for issuance as payment of accrued dividends on outstanding shares of Series B Preferred; and

2,318,012 shares of common stock reserved for issuance upon conversion of 2,318,012 shares of our Series C Convertible Preferred Stock (Series C Preferred).

Unless otherwise indicated, this prospectus supplement reflects and assumes no exercise by the underwriters of their option to purchase additional shares of common stock and no exercise and/or conversion of any outstanding derivative securities as of February 20, 2019.



## RISK FACTORS

Our Annual Report on Form 10-K for the fiscal year ended March 31, 2018 and our Quarterly Report on Form 10-Q for the quarters ended June 30, 2018, September 30, 2018 and December 31, 2018, which are incorporated by reference into this prospectus supplement, as well as our other filings with the SEC, include material risk factors relating to our business. Those risks and uncertainties and the risks and uncertainties described below are not the only risks and uncertainties that we face. Additional risks and uncertainties that are not presently known to us or that we currently deem immaterial or that are not specific to us, such as general economic conditions, may also materially and adversely affect our business and operations. If any of those risks and uncertainties or the risks and uncertainties described below actually occurs, our business, financial condition or results of operations could be harmed substantially. In such a case, you may lose all or part of your investment. You should carefully consider the risks and uncertainties described below and those risks and uncertainties incorporated by reference into this prospectus supplement, as well as the other information included in this prospectus supplement, before making an investment decision with respect to our common stock.

### Risks Related to this Offering

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

Our management will have broad discretion in the use of the net proceeds, including for any of the purposes described in the section entitled “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.

If you purchase shares of our common stock sold in this offering, you will experience immediate and substantial dilution in your investment. In addition, we may issue additional equity or equity-linked securities in the future, which may result in additional dilution to you.

The price per share of our common stock being offered may be higher than the net tangible book value per share of our outstanding common stock prior to this offering. Based on the public offering price of \$      per share and our net tangible book value as of December 31, 2018 of approximately \$0.05 per share, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$      per share, representing the difference between the public offering price per share and the net tangible book value per share of our common stock as of December 31, 2018 after giving effect to this offering. See the section entitled “Dilution” below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

In addition, we expect that significant additional capital will be needed in the future to continue our planned operations. To the extent that we raise additional capital by issuing equity securities, our existing shareholders’ ownership may experience substantial dilution, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common shareholder.

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 February 20, 2019, we have 31,120,465 shares of common stock outstanding, as well as outstanding options to purchase an aggregate of 6,628,588 shares of our common stock at a weighted average exercise price of \$1.48 per share, up to 4,228,252 shares of common stock issuable upon conversion of outstanding shares of our preferred stock, up to 2,344,720 shares of common stock reserved for issuance as payment of accrued dividends on outstanding shares of preferred stock, and outstanding warrants to purchase up to an aggregate of 21,499,955 shares of our common stock at a weighted average exercise price of \$2.54 per share. The exercise and/or conversion of such outstanding derivative securities may result in further dilution of your investment.

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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.

This offering could result in a significant limitation on our ability to utilize our net operating loss carryforwards to offset future taxable income.

As of March 31, 2018, we had federal and state net operating loss carryforwards, or NOLs, of approximately \$88.5 million and \$63.5 million, respectively, which begin to expire in our fiscal year ending March 31, 2019. Under Section 382 of the Internal Revenue Code of 1986, as amended (the Code) changes in our ownership may limit the amount of our net operating loss carryforwards that could be utilized annually to offset our future taxable income, if any. This limitation would generally apply in the event of a cumulative change in ownership of our stock (for Code Section 382 purposes) of more than 50% within a three-year period. Any such limitation may significantly reduce our ability to utilize our net operating loss carryforwards and tax credit carryforwards before they expire and could have a material adverse effect on our results of operations in future years. We have not assessed whether such an ownership change has previously occurred and it is possible that this offering could result in an ownership change.

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 three 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.





## CAUTIONARY NOTES REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement contains forward-looking statements that involve substantial risks and uncertainties. All statements contained in this prospectus supplement and the accompanying prospectus, other than statements of historical facts, are forward-looking statements including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth. 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,” “w,” “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 any of our current product candidates;

our ability to initiate and complete our clinical trials and to advance our product candidates into additional clinical trials, including pivotal clinical trials, and successfully complete such clinical trials;

regulatory developments in the U.S. and foreign countries;

the performance of the NIMH, our third-party contractors involved with the manufacturer and production of our drug candidates for nonclinical and clinical development activities, contract research organizations and other third-party nonclinical and clinical development collaborators and regulatory service providers;

our ability to obtain and maintain intellectual property protection for our core assets;

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;

the loss of key scientific, clinical and nonclinical development, and/or management personnel, internally or from one of our third-party collaborators; 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, 2018 and subsequent Quarterly Reports on Form 10-Q, which risk factors are incorporated herein by reference.

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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. We have included important factors in the cautionary statements included in this prospectus supplement, as well as certain information incorporated by reference into this prospectus supplement and the accompanying prospectus, that could cause actual future results or events to differ materially from the forward-looking statements that we make. 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 read this prospectus supplement and the accompanying prospectus with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.



## USE OF PROCEEDS

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

We currently intend to use the net proceeds from the sale of the shares of common stock offered by this prospectus supplement to fund continued development of our AV-101, PH94B and PH10 programs, and for general research and development, working capital and general corporate purposes.

Pending other uses, we intend to invest our proceeds from the 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.

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## PRICE RANGE OF OUR COMMON STOCK

Our common stock was approved for listing and has traded since May 11, 2016 on the Nasdaq Capital Market under the symbol “VTGN”. From June 21, 2011 through May 10, 2016, our common stock traded on the OTC Marketplace (OTCQB), under the symbol “VSTA”. There was no established trading market for our common stock prior to June 21, 2011.

Shown below is the range of high and low sales prices for our common stock for the periods indicated as reported by the Nasdaq Capital Market. The market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commissions and may not necessarily represent actual transactions.

On February 22, 2019, the last reported sale price of our common stock was \$1.38 per share.

|                                     | Common Stock |         |             |        |             |        |
|-------------------------------------|--------------|---------|-------------|--------|-------------|--------|
|                                     | Fiscal 2019  |         | Fiscal 2018 |        | Fiscal 2017 |        |
|                                     | High         | Low     | High        | Low    | High        | Low    |
| First Quarter, ending June 30       | \$1.76       | \$0.81  | \$2.40      | \$1.72 | \$9.00      | \$3.40 |
| Second Quarter, ending September 30 | \$1.53       | \$1.20  | \$2.05      | \$1.53 | \$4.69      | \$2.81 |
| Third Quarter, ending December 31   | \$2.44       | \$1.26  | \$2.65      | \$0.69 | \$4.50      | \$3.11 |
| Fourth Quarter, ending March 31     | \$1.86*      | \$1.36* | \$1.79      | \$0.86 | \$3.90      | \$1.74 |

\* Through February 22, 2019.



## DIVIDEND POLICY

We have never paid or declared any cash dividends on our common stock, and we do not anticipate paying any cash dividends on our common stock in the foreseeable future. Covenants in certain of our debt agreements prohibit us from paying dividends while the debt remains outstanding. Our Series B Preferred accrues dividends at a rate of 10% per annum, which dividends are payable solely in unregistered shares of our common stock at the time the Series B Preferred is converted into common stock.

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## CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2018:

on an actual basis; and

on a pro forma, as adjusted basis giving effect to the sale and issuance by us of \_\_\_\_\_ shares of common stock to purchase up to \_\_\_\_\_ shares of common stock in this offering, at a public offering price of \$ \_\_\_\_\_ per share, and after deducting the underwriting discount and estimated offering expenses payable by us.

As of December 31, 2018

| (amounts in dollars and in thousands, except share and per share amounts)  | Actual    | Pro forma |
|--|-----------|-----------|
| Cash and cash equivalents  | \$6,285   | \$        |
| Stockholders' equity:  |           |           |
| Preferred stock, \$0.001 par value, 10,000,000 shares authorized:  |           |           |
| Series A Preferred, 500,000 shares authorized and outstanding, actual and pro forma  | \$1       | \$        |
| Series B Preferred, 4,000,000 shares authorized and 1,160,240 shares outstanding, actual and pro forma                           | 1         |           |
| Series C Preferred, 3,000,000 shares authorized and 2,318,012 shares outstanding, actual and pro forma                           | 2         |           |
| Common stock, \$0.001 par value, 100,000,000 shares authorized; 31,204,380 shares issued, actual; _____ shares issued, pro forma | 31        |           |
| Additional paid-in capital   | 181,036   |           |
| Treasury stock, at cost, 135,665 shares, actual and pro forma  | (3,968)   |           |
| Accumulated deficit  | (175,410) |           |
| Total stockholders' equity   | \$1,693   | \$        |
| Total capitalization   | \$1,693   | \$        |

Common stock outstanding in the table above excludes the following shares as of December 31, 2018:

6,410,338 shares of common stock issuable upon exercise of outstanding stock options with a weighted average exercise price of \$1.47 per share;

21,499,955 shares of common stock issuable upon exercise of outstanding warrants with a weighted average exercise price of \$2.54 per share;

750,000 shares of common stock issuable upon conversion of all outstanding shares of our Series A Preferred;

1,160,240 shares of common stock issuable upon conversion of all outstanding shares of our Series B Preferred and 2,344,720 shares of common stock reserved for issuance as payment of accrued dividends on outstanding shares of

Series B Preferred;

2,318,012 shares of common stock issuable upon conversion of all outstanding shares of our Series C Preferred; and

2,877,162 shares of common stock reserved for future issuance in connection with future grants under our Amended and Restated 2016 Stock Incentive Plan.

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## DILUTION

If you purchase shares of our common stock in this offering, you will experience dilution to the extent of the difference between the public offering price per share and our as adjusted net tangible book value per share immediately after this offering.

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 December 31, 2018, our net tangible book value was approximately \$1.693 million, or approximately or approximately \$0.05 per share.

After giving effect to our receipt of approximately \$ million of estimated net proceeds, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, from our sale of shares of common stock in this offering at a public offering price of \$ per share, our pro forma net tangible book value as of December 31, 2018, would have been approximately \$ million, or \$ per share. This amount represents an immediate increase in net tangible book value of \$ per share of our common stock to existing stockholders and an immediate dilution in net tangible book value of \$ per share of our common stock to new investors purchasing shares of common stock in this offering.

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

|   |         |    |
|---|---------|----|
| Public offering price per share:  |         | \$ |
| Net tangible book value per share as of December 31, 2018                                 | \$ 0.05 |    |
| Increase in net tangible book value per share after this offering                         | \$      |    |
| Pro forma net tangible book value per share after this offering                           | \$      | \$ |
| Dilution in pro forma net tangible book value per share to new investors in this offering |         | \$ |

If the underwriters exercise their option to purchase additional shares in full, the pro forma net tangible book value would increase to approximately \$ per share, representing an increase to existing stockholders of approximately \$ per share, and there would be an immediate dilution of approximately \$ per share to new investors.

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 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 table and discussion above are based on 31,068,715 shares of our common stock outstanding as of December 31, 2018 (actual), and excludes as of that date the following:

6,410,338 shares of common stock issuable upon exercise of outstanding stock options with a weighted average exercise price of \$1.47 per share;

21,499,955 shares of common stock issuable upon exercise of outstanding warrants with a weighted average exercise price of \$2.54 per share;



750,000 shares of common stock issuable upon conversion of all outstanding shares of our Series A Preferred;

1,160,240 shares of common stock issuable upon conversion of all outstanding shares of our Series B Preferred and 2,344,720 shares of common stock reserved for issuance as payment of accrued dividends on outstanding shares of Series B Preferred;

2,318,012 shares of common stock issuable upon conversion of all outstanding shares of our Series C Preferred; and

2,877,162 shares of common stock reserved for future issuance in connection with future grants under our Amended and Restated 2016 Stock Incentive Plan.

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## MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal income tax consequences applicable to non-U.S. holders (as defined herein) with respect to their purchase, ownership and disposition of shares of our common stock issued pursuant to this offering. All prospective non-U.S. holders of our common stock should consult their own tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock.

In general, a non-U.S. holder means a beneficial owner of our common stock (other than a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) that is not, for U.S. federal income tax purposes:

an individual who is a citizen or resident of the United States;

a corporation, or an entity treated as a corporation for U.S. federal income tax purposes, created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia;

an estate, the income of which is subject to U.S. federal income tax regardless of its source; or

a trust if (i) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (ii) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended (the Code), existing U.S. Treasury Regulations promulgated thereunder, published administrative pronouncements and rulings of the U.S. Internal Revenue Service, which we refer to as the IRS, and judicial decisions, all as in effect as of the date of this prospectus supplement. These authorities are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to non-U.S. holders described in this discussion.

We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any estate or gift tax consequences, or any aspects of U.S. state, local or non-U.S. taxes. This discussion also does not address consequences relevant to non-U.S. holders subject to special tax rules, such as holders that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below), corporations that accumulate earnings to avoid U.S. federal income tax, tax-exempt or governmental organizations, banks, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-qualified retirement plans, holders subject to the alternative minimum tax or the Medicare contribution tax, holders holding our common stock as part of a hedge, straddle or other risk reduction strategy, conversion transaction, synthetic security or other integrated investment, holders deemed to sell our common stock under the constructive sale provisions of the Code, controlled foreign corporations, passive foreign investment companies, accrual method taxpayers subject to special tax accounting rules under Section 451(b) of the Code, and U.S. expatriates and certain former U.S. citizens or long-term residents.

In addition, this discussion does not address the tax treatment of partnerships (or entities or arrangements that are treated as partnerships for U.S. federal income tax purposes) or persons that hold their common stock through such partnerships. If a partnership, including any entity or arrangement treated as a partnership for U.S. federal income tax purposes, holds shares of our common stock, the U.S. federal income tax treatment of a partner in such partnership will generally depend upon the status of the partner, the activities of the partnership and certain determinations made at the partner level. Such partners and partnerships should consult their own tax advisors regarding the tax consequences of the purchase, ownership and disposition of our common stock.

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There can be no assurance that a court or the IRS will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain, a ruling with respect to the U.S. federal income tax consequences to a non-U.S. holder of the purchase, ownership or disposition of our common stock.

All prospective non-U.S. holders of our common stock are urged to consult their own tax advisors with respect to the U.S. federal income tax laws to their particular situation as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal estate or gift tax laws or under the laws of any state, local or non-U.S. taxing jurisdiction or under any applicable income tax treaty.

#### Distributions on Our Common Stock

As described in the section entitled “Dividend Policy,” we do not expect to pay any cash dividends in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a return of capital and first be applied against and reduce a non-U.S. holder’s adjusted tax basis in its common stock, but not below zero. Any remaining excess will be treated as capital gain from the sale or exchange of our common stock subject to the tax treatment described below in “Gain on Sale, Exchange or Other Disposition of Our Common Stock.” Any such distribution will also be subject to the discussion below under the headings “Foreign Accounts” and “Backup Withholding and Information Reporting.”

Subject to the discussions below on effectively connected income, dividends paid to a non-U.S. holder of our common stock will be subject to U.S. federal withholding at a 30% rate of the gross amount of the dividend (or such lower rate as may be specified by an applicable income tax treaty between the United States and a non-U.S. holder’s country of residence).

If dividends paid to a non-U.S. holder are effectively connected with a trade or business conducted by a non-U.S. holder within the United States (and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States), the non-U.S. holder will be exempt from the 30% U.S. federal withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. However, such U.S. effectively connected income, net of specified deductions and credits, will be taxed at the same graduated U.S. federal income tax rates applicable to “United States persons” (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate (or such lower rate as may be specified by an applicable income tax treaty between the United States and a non-U.S. holder’s country of residence) on a portion of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

To claim a reduction or exemption from withholding, a non-U.S. holder of our common stock generally will be required to provide (a) a properly executed IRS Form W-8BEN (in the case of individuals) or W-8BEN-E (in the case of entities), or successor form, and satisfy applicable certification and other requirements to claim the benefit of an applicable income tax treaty between the United States and such holder’s country of residence, or (b) a properly executed IRS Form W-8ECI stating that dividends are not subject to withholding because they are effectively connected with such non-U.S. holder’s conduct of a trade or business within the United States. The tax forms referred to above must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. In the case of a non-U.S. holder that is an entity, Treasury Regulations and any relevant tax treaty provide rules to determine whether, for purposes of determining the applicability of an income tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a non-U.S. Holder holds stock through a financial institution or other agent acting on the holder’s behalf, the holder will be required to provide

appropriate documentation to such agent. The holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. A non-U.S. holder that is eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

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## Gain on Sale, Exchange or Other Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding and the discussion under the heading “Foreign Accounts,” in general, a non-U.S. holder will not be subject to any U.S. federal income tax on any gain realized upon such non-U.S. holder’s sale, exchange or other taxable disposition of shares of our common stock unless:

the gain is effectively connected with a U.S. trade or business of the non-U.S. holder (and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained in the United States by such non-U.S. holder), in which case the non-U.S. holder generally will be taxed on a net income basis at the graduated U.S. federal income tax rates applicable to “United States persons” (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items, may also apply;

the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% U.S. federal income tax (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition, which may be offset by U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States), provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses; or

our common stock constitutes U.S. real property interest because we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder’s holding period, if shorter) a U.S. real property holding corporation for U.S. federal income tax purposes. Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus the fair market value of its other assets used or held for use in a trade or business. We do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. However, because the determination of whether we are a U.S. real property holding corporation depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a U.S. real property holding corporation in the future. Even if we are or become a U.S. real property holding corporation, provided that our common stock is regularly traded, as defined by applicable Treasury Regulations, on an established securities market, our common stock will be treated as a U.S. real property interest only with respect to a non-U.S. holder that holds more than 5% of our outstanding common stock, actually or constructively, during the shorter of the 5-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. In such case, such non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to “United States persons” (as defined in the Code). No assurance can be provided that our common stock will continue to be regularly traded on an established securities market for purposes of the rules described above.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.



## Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder the gross amount of the dividends on our common stock paid to such holder and the tax withheld, if any, with respect to such dividends. Non-U.S. holders will have to comply with specific certification procedures to establish that the holder is not a “United States person” (as defined in the Code) in order to avoid backup withholding at the applicable rate (currently at a 24% rate) with respect to dividends on our common stock. A non-U.S. holder generally will not be subject to U.S. backup withholding with respect to payments of dividends on our common stock if such non-U.S. holder certifies its non-U.S. status by providing a valid IRS Form W-8BEN (in the case of individuals) or W-8BEN-E (in the case of entities) or W-8ECI, or successor form, or otherwise establishes an exemption; provided we do not have actual knowledge or reason to know such non-U.S. holder is a “United States person” (as defined in the Code).

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

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

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may be allowed as a credit against the non-U.S. holder’s U.S. federal income tax liability, if any, and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

## Foreign Accounts

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act (FATCA)) on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a U.S. federal withholding tax of 30% may be imposed on dividends on, or on the gross proceeds from the sale or other disposition of, our common stock paid to a “foreign financial institution” (as defined in the Code), unless such foreign financial institution enters into an agreement with the U.S. Department of Treasury requiring, among other things, withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding accounts held by certain “specified United States persons” or “United States-owned foreign entities” (each as defined in the Code), or otherwise qualifies for an exemption from these rules. Additionally, U.S. federal withholding tax of 30% may be imposed on dividends on, or on the gross proceeds from the sale or other disposition of, our common stock paid to a “non-financial foreign entity” (as defined in the Code), unless such non-financial foreign entity provides the withholding agent with either a certification that it does not have any “substantial United States owners” (as defined in the Code), provides information regarding each substantial United States owner, or otherwise qualifies for an exemption from these rules. An intergovernmental agreement between the United States and an applicable foreign country where a foreign financial institution is located may modify the requirements described in this paragraph.

The withholding under FATCA described above currently applies to dividends paid on our common stock. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of our common stock on or after January 1, 2019, recently proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock.

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## UNDERWRITING

William Blair & Company, L.L.C. is acting as representative of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of our common stock set forth opposite its name below.

| Name                            | Number of Shares |
|---------------------------------|------------------|
| William Blair & Company, L.L.C. |                  |

Total

The underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have granted to the underwriters an option, exercisable for 30 calendar days from the date of this prospectus, to purchase up to additional shares of common stock at the public offering price listed on the cover of this prospectus supplement, less underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of the additional shares of common stock as the number listed next to such underwriter's name in the table above bears to the total number of shares of common stock listed next to the names of all underwriters in the above table. Any shares issued or sold under the option will be issued and sold on the same terms and conditions as the other shares that are the subject of this offering.

### Commissions and Discounts

The representative has advised us that the underwriters propose initially to offer the shares to the public at the combined public offering price per share set forth on the cover page of this prospectus supplement and to dealers at that price less a concession not in excess of \$ per share. After the public offering, the public offering price, concession or any other term of this offering may be changed.

The following table shows the public offering price per share, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares.

|                                  | Per Share | Without Option | With Option |
|----------------------------------|-----------|----------------|-------------|
| Public offering price            | \$        | \$             | \$          |
| Underwriting discount            |           |                |             |
| Proceeds, before expenses, to us |           |                |             |

The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus supplement are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus supplement if any such shares are taken. However, the underwriters are not

required to take or pay for the shares covered by the underwriters' option to purchase additional shares described above. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately \$ , which includes legal, accounting and printing costs and various other fees. We have agreed to reimburse the representative for certain additional expenses incurred in connection with this offering in an amount up to \$125,000.

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### No Sales of Similar Securities

We have agreed with the underwriters, subject to customary exceptions not to (i) offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, or file with the SEC a registration statement under the Act relating to, any shares of our common stock or any securities that are substantially similar to our common stock, including but not limited to any options or warrants to purchase shares of our common stock or any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock or any such substantially similar securities, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, or any such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of our common stock or such other securities, in cash or otherwise, without the prior written consent of the representative.

Our directors and executive officers have agreed with the underwriters, subject to customary exceptions, not to (i) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, exercisable or exchangeable for or that represent the right to receive our common stock (including without limitation, our common stock which may be deemed to be beneficially owned in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), whether now owned or hereafter acquired, or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any such transaction is to be settled by delivery of our common stock or such other securities, in cash or otherwise. These restrictions will apply through and including the date that is 90 days after the date of this prospectus supplement.

### Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "VTGN."

### Price Stabilization, Short Positions and Penalty Bids

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

In connection with this offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares described above. The underwriters may close out any covered short position by either exercising this option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through this option. "Naked" short sales are sales in excess of this option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering. Stabilizing transactions consist of various bids for or purchases of shares of our common stock made by the underwriters in the open market prior to the closing of this offering.

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

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

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

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### Electronic Offer, Sale and Distribution of Shares

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail. In addition, one or more of the underwriters may facilitate Internet distribution for this offering to certain of their Internet subscription customers. Any such underwriter may allocate a limited number of shares for sale to its online brokerage customers. An electronic prospectus is available on the Internet websites maintained by any such underwriter. Other than the prospectus in electronic format, the information on the websites of any such underwriter is not part of this prospectus supplement and the accompanying prospectus.

### Other Relationships

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their affiliates may engage in from time to time in the future certain investment banking and other commercial dealings in the ordinary course of business with us or our affiliates, for which they have received and may continue to receive customary fees and commissions. In addition, we have granted William Blair & Company, L.L.C. the right to participate in any public or private offering of securities by us, subject to certain limitations.

In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

### Selling Restrictions

#### Canada

#### Resale Restrictions

The distribution of shares of our common stock in Canada is being made only in the provinces of Ontario, Quebec, Alberta and British Columbia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of shares of our common stock in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

#### Representations of Canadian Purchasers

By purchasing shares of our common stock in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

the purchaser is entitled under applicable provincial securities laws to purchase the shares of common stock without the benefit of a prospectus qualified under those securities laws as it is an “accredited investor” as defined under

National Instrument 45-106—Prospectus Exemptions,

the purchaser is a “permitted client” as defined in National Instrument 31-103—Registration Requirements, Exemptions and Ongoing Registrant Obligations,

where required by law, the purchaser is purchasing as principal and not as agent, and

the purchaser has reviewed the text above under Resale Restrictions.

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### Conflicts of Interest

Canadian purchasers are hereby notified that the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105—Underwriting Conflicts from having to provide certain conflict of interest disclosure in this document.

### Statutory Rights of Action

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

### Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

### Taxation and Eligibility for Investment

Canadian purchasers of shares of our common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the shares of common stock in their particular circumstances and about the eligibility of shares of our common stock for investment by the purchaser under relevant Canadian legislation.

### European Economic Area

In relation to each Member State of the European Economic Area that has implemented the Prospectus Directive, each referred to as a Relevant Member State, an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a)  
to any legal entity which is a "qualified investor" as defined in the Prospectus Directive;

(b)  
to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the underwriters for any such offer; or

(c)  
in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer to the public” in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression “Prospectus Directive” means Directive 2003/71/EC (and amendments thereto, including by Directive 2010/73/EU) and includes any relevant implementing measure in each Relevant Member State.

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## United Kingdom

Each underwriter has represented and agreed that:

(a) it has not made or will not make an offer of shares of our common stock to the public in the United Kingdom within the meaning of section 102B of the Financial Services and Markets Act 2000 (as amended) (FSMA) except to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities or otherwise in circumstances which do not require the publication by us of a prospectus pursuant to the Prospectus Rules of the Financial Services Authority;

(b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) to persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or in circumstances in which section 21 of FSMA does not apply to us; and

(c) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

## Hong Kong

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

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

## Singapore

This prospectus has not been, and will not be, registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares of common stock may not be circulated or distributed, nor may the shares of

common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the SFA)) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to compliance with conditions set forth in the SFA.

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

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the common stock pursuant to an offer made under Section 275 of the SFA except:

(a) to an institutional investor pursuant to Section 274 of the SFA or to a relevant person pursuant to Section 275(1) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(b) where no consideration is or will be given for the transfer;

(c) where the transfer is by operation of law;

(d) as specified in Section 276(7) of the SFA; or

(e) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Switzerland

The shares of common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (the SIX) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares of common stock or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, or the shares of common stock have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of common stock will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of common stock has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. Accordingly, no public distribution, offering or advertising, as defined in CISA, its implementing ordinances and notices, and no distribution to any non-qualified investor, as defined in CISA, its implementing ordinances and notices, shall be undertaken in or from Switzerland, and the

investor protection afforded to acquirers of interests in collective investment schemes under CISA does not extend to acquirers of common stock.

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#### United Arab Emirates

This offering has not been reviewed, approved or licensed by the Central Bank of the United Arab Emirates (the UAE), the Emirates Securities and Commodities Authority of the UAE (the SCA) and/or any other relevant licensing authority in the UAE including any licensing authority incorporated under the laws and regulations of any of the free zones established and operating in the territory of the UAE (the Free Zones), in particular the Dubai Financial Services Authority (the DFSA), a regulatory authority of the Dubai International Financial Centre the (DIFC) or the Financial Services Regulatory Authority (the FSRA), a regulatory authority of Abu Dhabi Global Market (ADGM).

This offering is not intended to, and does not, constitute an offer, sale or delivery of shares or other securities under the laws of the UAE. The common stock has not been and will not be registered with or licensed by the SCA or with the UAE Central Bank, the Dubai Financial Market, the Abu Dhabi Securities Exchange or with any other UAE regulatory authority or exchange.

The issue and/or sale of the common stock has not been approved or licensed by the SCA, the UAE Central Bank or any other relevant licensing authority in the UAE, and does not constitute a public offer of securities in the UAE, DIFC, ADGM and/or any other Free Zone in accordance with the Commercial Companies Law, Federal Law No 2 of 2015 (as amended), the Markets Rules of the DFSA, (the DFSA Markets Rules), the Markets Rules of the FSRA (the FSRA Markets Rules) and/or Nasdaq Dubai Listing Rules or under any other law of the UAE. The common stock may not be offered to the public in the UAE and/or any of the Free Zones.

No marketing or promotion of the common stock has been or will be made from within the UAE and no sale of or subscription for the common stock may or will be consummated within the UAE. It should not be assumed that VistaGen Therapeutics Inc., VistaGen Therapeutics, Inc.'s advisors, their advisors or any other person is a licensed broker, dealer or investment adviser under the laws of the UAE or that they advise as to the appropriateness of investing in or purchasing or selling securities or other financial products.

This offering is not intended to constitute a financial promotion, an offer, sale or delivery of shares or other securities under the DIFC Markets Law (DIFC Law No. 1 of 2012, as amended) (the Markets Law), the DFSA Markets Rules, the Collective Investment Law 2010 (DIFC Law No. 2 of 2010) (the Collective Investment Law), the ADGM Financial Services and Markets Regulations 2015 (the FSMR), the FSRA Markets Rules, the Funds Rules of the FSRA (FSRA Funds Rules), or any other laws and regulations of the DIFC, the DFSA, ADGM or the FSRA.

This offering and the issue or transfer of any securities related to it have not been approved or licensed by the DFSA, and do not constitute an offer of securities in the DIFC in accordance with the Markets Law or the DFSA Markets Rules or the Collective Investment Law or any other laws and regulations of the DIFC or the DFSA. This offering and the issue or transfer of any securities related to it have not been approved or licensed by the FSRA, and do not constitute an offer of securities in ADGM in accordance with the FSMR or the FSRA Markets Rules or the FSRA Funds Rules or any other laws and regulations of ADGM or the FSRA.

#### France

This prospectus (including any amendment, supplement or replacement thereto) is not being distributed in the context of a public offering of financial instruments (offre au public de titres financiers) in France within the meaning of Article L. 411-1 of the French Monetary and Financial Code (Code monétaire et financier) and Articles 211-1 et seq. of the General Regulations of the French Autorité des marchés financiers (the AMF). The common stock have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France.

This prospectus and any other offering material relating to the common stock have not been, and will not be, submitted to the AMF for approval in France and, accordingly, may not and will not be distributed or caused to be



distributed, directly or indirectly, to the public in France.

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Pursuant to Article 211-3 of the AMF General Regulations, French residents are hereby informed that:

(a)

the transaction does not require a prospectus to be submitted for approval to the AMF;

(b)

the offer, sale and distribution of the financial instruments shall only be made in France to (i) qualified investors (investisseurs qualifiés) acting for their own account, as defined in and in accordance with Articles L. 411-2-II-2° and D. 411-1, D. 411-2, D. 734-1, D. 744-1, D. 754-1 and D. 764-1 of the French Monetary and Financial Code and any implementing regulation and/or (ii) a restricted number of non-qualified investors (investisseurs non-qualifiés) acting for their own account, as defined in and in accordance with Articles L. 411-2-II-2° and D. 411-4, D. 734-1, D. 744-1, D. 754-1 and D. 764-1 of the French Monetary and Financial Code and any implementing regulation; and

(c)

the financial instruments thus acquired cannot be distributed, directly or indirectly, to the public otherwise than in accordance with Articles L. 411-1, L. 411-2, L. 412-1 and L. 621-8 to L. 621-8-3 of the French Monetary and Financial Code.

This prospectus is not to be further distributed or reproduced (in whole or in part) in France by the recipients of this prospectus. This prospectus has been distributed on the understanding that such recipients will only participate in the issue or sale of our common stock for their own account and undertake not to transfer, directly or indirectly, our common stock to the public in France, other than in compliance with all applicable laws and regulations and in particular with Articles L. 411-1 and L. 411-2 of the French Monetary and Financial Code and Articles 211-1 et seq. of the AMF General Regulations.

#### Notice to Prospective Investors in Israel

The securities offered by this prospectus supplement and the accompanying prospectus have not been approved or disapproved by the Israeli Securities Authority (the ISA), nor have such securities been registered for sale in Israel. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing this prospectus supplement and the accompanying prospectus; nor has it authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the securities being offered. The ordinary shares will not be offered or sold, directly or indirectly, to the public in Israel, except that the underwriter may offer and sell such shares to Israeli investors who qualify, in accordance with the Israeli Securities Law as “qualified investors” (as defined in the First Appendix to the Israeli Securities Law) and completed and signed a questionnaire regarding such qualification and delivered it to the underwriter. Any resale in Israel, directly or indirectly, to the public of the securities offered by this prospectus supplement and the accompanying prospectus is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.



## LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Disclosure Law Group, a Professional Corporation, San Diego, California (DLG). Partners of DLG beneficially own an aggregate of 84,487 registered and/or restricted shares of our common stock. Latham & Watkins LLP, Chicago, Illinois, is acting as counsel for the underwriter in connection with this offering.

## EXPERTS

The financial statements of the Company incorporated in this prospectus by reference to the Annual Report on Form 10-K for the fiscal year ended March 31, 2018 have been audited by OUM & Co. LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We are a public company and file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street, NE, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available, at no charge, to the public at the SEC's website at <http://www.sec.gov>.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

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

Annual Report on Form 10-K for the fiscal year ended March 31, 2018, filed on June 26, 2018;

Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, filed on August 14, 2018;

Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, filed on October 29, 2018;

Quarterly Report on Form 10-Q/A (Amendment No. 1) for the quarter ended September 30, 2018, filed on October 30, 2018;

Quarterly Report on Form 10-Q for the quarter ended December 31, 2018, filed on February 12, 2019;

Current Reports on Form 8-K, filed on April 6, 2018, April 10, 2018, May 3, 2018, May 23, 2018, June 11, 2018, June 13, 2018, August 9, 2018, as amended on December 13, 2018, August 14, 2018, September 13, 2018, September 18, 2018, October 5, 2018, October 26, 2018, November 13, 2018, January 15, 2019, February 1, 2019 and February 19, 2019; and

The description of our common stock contained in the Registration Statement on Form 8-A filed pursuant to Section 12(b) of the Exchange Act on May 3, 2016, including any amendment or report filed with the SEC 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(d) of the Exchange Act (other than any portions of filings that are furnished rather than filed pursuant to Items 2.02 and 7.01 of a Current Report on Form 8-K) after the date of the initial registration statement of which this prospectus is a part and prior to

effectiveness of such registration statement. All documents we file in the future pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of the offering are also incorporated by reference and are an important part of this prospectus.

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

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of this prospectus supplement and any or all of the information that has been incorporated by reference in the prospectus supplement but not delivered herewith. 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.  
Attn: Corporate Secretary  
343 Allerton Avenue  
South San Francisco, CA 94080  
(650) 577-3600

Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus supplement or the accompanying prospectus.

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## BASE PROSPECTUS

\$100,000,000

Common Stock  
Preferred Stock  
Warrants  
Units

From time to time, we may offer and sell, in one or more offerings, up to \$100,000,000 of any combination of the securities described in this prospectus. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable anti-dilution provisions.

This prospectus provides a general description of the securities we may offer from time to time. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with an offering. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

Our common stock is quoted on The NASDAQ Capital Market under the symbol “VTGN”. The last reported sale price of our common stock on March 31, 2017 was \$1.96 per share.

We may offer and sell our securities to or through one or more agents, underwriters, dealers or other third parties or directly to one or more purchasers on a continuous or delayed basis. If agents, underwriters or dealers are used to sell our securities, we will name them and describe their compensation in a prospectus supplement. The price to the public of our securities and the net proceeds we expect to receive from the sale of such securities will also be set forth in a prospectus supplement. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus.

As of January 10, 2017, the aggregate market value of our outstanding common stock held by non-affiliates was approximately \$31.4 million, which was calculated based on 8,543,137 shares of outstanding common stock held by non-affiliates, at a price per share of \$3.68. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell the securities described in this prospectus in a public primary offering with a value exceeding more than one-third (1/3) of the aggregate market value of our common stock held by non-affiliates in any twelve (12)-month period, so long as the aggregate market value of our outstanding common stock held by non-affiliates remains below \$75 million. During the twelve (12) calendar months prior to and including the date of this prospectus, we have not offered or sold any securities pursuant to General Instruction I.B.6 of Form S-3.

Our business and investing in our securities involves significant risks. You should review carefully the risks and uncertainties referenced under the heading “Risk Factors” on page 5 of this prospectus, as well as those contained in the applicable prospectus supplement and any related free writing prospectus, and in the other documents that are incorporated by reference into this prospectus or the applicable prospectus supplement.

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 July 27, 2017





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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement filed with the Securities and Exchange Commission (the SEC), using a “shelf” registration process. Under this shelf registration process, we may sell the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities which may be offered. Each time we offer securities for sale, we will provide a prospectus supplement that contains information about the specific terms of that offering. Any prospectus supplement may also add or update information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described below under “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

You should rely only on the information contained or incorporated by reference in this prospectus, and in any prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making offers to sell or solicitations to buy the securities described in this prospectus in any jurisdiction in which an offer or solicitation is not authorized, or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should not assume that the information in this prospectus or any prospectus supplement, as well as the information we file or previously filed with the SEC that we incorporate by reference in this prospectus or any prospectus supplement, is accurate as of any date other than its respective date. Our business, financial condition, results of operations and prospects may have changed since those dates.

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

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### 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 common stock. You should read the following summary together with the more detailed information appearing in this prospectus, including the section titled “Risk Factors” on page 5, before deciding whether to purchase our securities.

All brand names or trademarks appearing in this report are the property of their respective holders. Unless the context requires otherwise, references in this report to “VistaGen,” the “Company,” “we,” “us,” and “our” refer to VistaGen Therapeutics, Inc., a Nevada corporation.

#### Overview

We are a clinical-stage biopharmaceutical company focused on developing new generation medicines for depression and other central nervous system (CNS) disorders.

AV-101, our lead CNS product candidate, is a new generation oral antidepressant prodrug candidate in Phase 2 development as an adjunctive treatment for Major Depressive Disorder (MDD) in patients with an inadequate response to standard antidepressants approved by the U.S. Food and Drug Administration (FDA). We believe AV-101 may also have the potential to treat multiple additional CNS diseases and disorders, including chronic neuropathic pain, epilepsy, Huntington’s disease and Parkinson’s disease. AV-101’s mechanism of action, as an N-methyl D aspartate receptor (NMDAR) antagonist binding selectively at the glycine binding (GlyB) co-agonist site of the NMDAR, is fundamentally differentiated from all FDA-approved antidepressants currently on the market, as well as all atypical antipsychotics used as adjunctive treatments with current antidepressants.

Clinical studies conducted at the U.S. National Institute of Mental Health (NIMH), part of the U.S. National Institutes of Health (NIH), by Dr. Carlos Zarate, Jr., Chief of the NIMH’s Experimental Therapeutics & Pathophysiology Branch and its Section on Neurobiology and Treatment of Mood and Anxiety Disorders, have focused on the antidepressant effects of low dose intravenous (IV) administration of ketamine hydrochloride (ketamine), an NMDAR antagonist, in patients with treatment-resistant MDD. These NIMH studies, as well as clinical research at Yale University and other academic institutions, have demonstrated robust antidepressant effects in treatment-resistant MDD patients within twenty-four hours of a single IV dose of ketamine.

As published in the October 2015 issue of the peer-reviewed, Journal of Pharmacology and Experimental Therapeutics, in an article entitled, The prodrug 4-chlorokynurenine causes ketamine-like antidepressant effects, but not side effects, by NMDA/glycineB-site inhibition, using well-established preclinical models of depression, AV-101 was shown to induce fast-acting, dose-dependent, persistent and statistically significant antidepressant-like responses following a single treatment. These responses were equivalent to those seen with a single sub-anesthetic control dose of ketamine. In addition, these studies confirmed that the fast-acting antidepressant effects of AV-101 were mediated through the GlyB site and also involved the activation of another key neurological pathway, the alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor pathway

In February 2015, we entered into a Cooperative Research and Development Agreement (CRADA) with the NIMH. Under the CRADA, the NIMH is funding, and Dr. Zarate, as Principal Investigator, and his team are conducting, a 20-25 patient Phase 2 clinical study of AV-101 as a monotherapy in subjects with treatment-resistant MDD (the NIMH Study). We believe orally-administered AV-101 may have potential to deliver ketamine-like antidepressant effects without ketamine’s psychological and other side effects. We currently anticipate that the NIMH

will complete the NIMH Study at the end of 2017.

We are preparing to launch our Phase 2 clinical study of AV-101 as a new generation adjunctive treatment of MDD in adult patients with an inadequate response to standard, FDA-approved antidepressants (Phase 2 Study). We currently anticipate commencement of this multi-center, multi-dose, double blind, placebo-controlled efficacy and safety study of AV-101 by the end of the second quarter of 2017. Dr. Maurizio Fava, Professor of Psychiatry at Harvard Medical School and Director, Division of Clinical Research, Massachusetts General Hospital (MGH) Research Institute, will be the Principal Investigator of the Phase 2 Study. Dr. Fava was the co-Principal Investigator with Dr. A. John Rush of the STAR\*D study, the largest clinical trial conducted in depression to date, whose findings were published in journals such as the New England Journal of Medicine (NEJM) and the Journal of the American Medical Association (JAMA). We currently anticipate top line results of the Phase 2 Study by the end of 2018.

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VistaStem Therapeutics (VistaStem) is our wholly owned subsidiary focused on applying human pluripotent stem cell (hPSC) technology, internally and with third-party collaborators, to discover, rescue, develop and commercialize (i) proprietary new chemical entities (NCEs), including small molecule NCEs with regenerative potential, for CNS and other diseases and (ii) cellular therapies involving stem cell-derived blood, cartilage, heart and liver cells. Our internal drug rescue programs are designed to utilize CardioSafe 3D, our customized cardiac bioassay system, to develop small molecule NCEs for our pipeline. In December 2016, we exclusively sublicensed to BlueRock Therapeutics LP, a next generation regenerative medicine company established by Bayer AG and Versant Ventures, rights to certain proprietary technologies relating to the production of cardiac stem cells for the treatment of heart disease (the BlueRock Agreement). VistaStem may also pursue additional potential regenerative medicine (RM) applications, including using blood, cartilage, and/or liver cells derived from hPSCs for (A) cell-based therapy, (B) cell repair therapy, and/or (C) tissue engineering. In a manner similar to our exclusive sublicense agreement with BlueRock Therapeutics, VistaStem may pursue these additional RM applications in collaboration with third-parties.

### AV-101 and Major Depressive Disorder

#### Background

The World Health Organization (WHO) estimates that 300 million people worldwide are affected by depression. According to the NIH, major depression is one of the most common mental disorders in the U.S. The NIMH reports that, in 2014, an estimated 15.7 million adults aged 18 or older in the U.S. had at least one major depressive episode in the past year. This represented 6.7 percent of all U.S. adults. According to the U.S. Centers for Disease Control and Prevention (CDC) one in 10 Americans over the age of 12 takes a standard, FDA-approved antidepressant.

Most standard, FDA-approved antidepressants target neurotransmitter reuptake inhibition – either serotonin (antidepressants known as SSRIs) or serotonin/norepinephrine (antidepressants known as SNRIs). Even when effective, these standard depression medications take many weeks to achieve adequate antidepressant effects. Nearly two out of every three drug-treated depression patients, including an estimated 6.9 million drug-treated MDD patients in the U.S., obtain inadequate therapeutic benefit from initial treatment with a standard antidepressant. Unfortunately, even after treatment with many different standard antidepressants, nearly one out of every three drug-treated depression patients still do not achieve adequate therapeutic benefits from their antidepressant medication. Such patients with an inadequate response to standard antidepressants often seek to augment their treatment regimen by adding an atypical antipsychotic (drugs such as, for example, aripiprazole), despite only modest potential therapeutic benefit and the risk of additional side effects from atypical antipsychotics.

All standard, FDA-approved antidepressants have risks of significant side effects, including, among others, potential anxiety, metabolic syndrome, sleep disturbance and sexual dysfunction. Adjunctive use of atypical antipsychotics to augment inadequately performing standard antidepressants increases the risk of serious side effects, including, potentially, tardive dyskinesia, significant weight gain, diabetes and heart disease, while offering only a modest potential increase in therapeutic benefit.

#### AV-101

AV-101 is our oral new generation antidepressant prodrug candidate in Phase 2 clinical development in the U.S. for the adjunctive treatment of MDD patients with an inadequate response to standard, FDA-approved antidepressants. As published in the October 2015 issue of the peer-reviewed, Journal of Pharmacology and Experimental Therapeutics, in an article entitled, The prodrug 4-chlorokynurenine causes ketamine-like antidepressant effects, but not side effects, by NMDA/glycineB-site inhibition, using well-established preclinical models of depression, AV-101 was shown to induce fast-acting, dose-dependent, persistent and statistically significant antidepressant-like responses following a

single treatment. These responses were equivalent to those seen with a single sub-anesthetic control dose of ketamine. In addition, these studies confirmed that the fast-acting antidepressant effects of AV-101 were mediated through the GlyB site and also involved the activation of another key neurological pathway, the alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor pathway. We believe activation of the AMPA receptor pathway is a key final common pathway feature of new generation antidepressants.

Following the completion of our NIH-funded, randomized, double blind, placebo-controlled AV-101 Phase 1 safety studies, in February 2015, we entered into a Cooperative Research and Development Agreement (CRADA) with the NIMH. Under the CRADA, the NIMH is funding, and Dr. Zarate, as Principal Investigator, and his team are conducting, a 20-25 patient Phase 2 clinical study of AV-101 as a monotherapy in subjects with treatment-resistant MDD (NIMH Study). We currently anticipate that the NIMH will complete the NIMH Study by the end of 2017.

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We are preparing to launch our approximately 180-patient Phase 2 Study of AV-101 as an adjunctive treatment of MDD in patients with an inadequate response to standard, FDA-approved antidepressants. We currently anticipate the launch of the Phase 2 Study, with Dr. Maurizio Fava of Harvard Medical School serving as Principal Investigator, by the end of the second quarter of 2017. We currently anticipate top line results of the Phase 2 Study by the end of 2018.

We believe prior preclinical studies support the hypothesis that AV-101 may also have the potential to treat multiple CNS disorders and neurodegenerative diseases in addition to MDD, including chronic neuropathic pain, epilepsy, Parkinson's disease and Huntington's disease, where modulation of the NMDAR, AMPA pathway and/or key active metabolites of AV-101 may achieve therapeutic benefit. However, human clinical studies will be required before this therapeutic potential could be demonstrated. There is no guarantee that human clinical trials would be successful or that the FDA would approve the use of AV-101 for the treatment of one or more of these additional CNS indications.

CardioSafe 3D™; NCE Drug Rescue and Regenerative Medicine

VistaStem Therapeutics is our wholly owned subsidiary focused on applying hPSC technology to discover, rescue, develop and commercialize proprietary small molecule NCEs for CNS and other diseases, as well as potential cellular therapies involving stem cell-derived blood, cartilage, heart and liver cells. CardioSafe 3D™ is our customized in vitro cardiac bioassay system capable of predicting potential human heart toxicity of small molecule NCEs in vitro, long before they are ever tested in animal and human studies. Potential commercial applications of our stem cell technology platform involve (i) using CardioSafe 3D internally for NCE drug discovery and (ii) regenerative medicine (RM) and cellular therapies. Drug rescue involves leveraging substantial prior research and development investments by pharmaceutical companies and others related to public domain NCE programs terminated before FDA approval due to heart toxicity risks. In December 2016, we exclusively sublicensed to BlueRock Therapeutics LP, a next generation RM company established by Bayer AG and Versant Ventures, rights to certain proprietary technologies relating to the production of cardiac stem cells for the treatment of heart disease. We may also pursue additional potential RM applications using blood, cartilage, and/or liver cells derived from hPSCs for (A) cell-based therapy (injection of stem cell-derived mature organ-specific cells obtained through directed differentiation), (B) cell repair therapy (induction of regeneration by biologically active molecules administered alone or produced by infused genetically engineered cells), or (C) tissue engineering (transplantation of in vitro grown complex tissues) using hPSC-derived blood, bone, cartilage, and/or liver cells. In a manner similar to the BlueRock Therapeutics Agreement, we may pursue these additional RM and cellular therapy applications in collaboration with third-parties.

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Risk Factors

Our business is subject to substantial risk. Please carefully consider the section titled “Risk Factors” on page 5 of this prospectus for a discussion of the factors you should carefully consider before deciding to purchase the securities offered by this prospectus. These risks include, among others:

we are a development stage biopharmaceutical company with no current revenues or approved products, and limited experience developing new drug, biological and/or regenerative medicine candidates, which makes it difficult to assess our future viability;

we depend heavily on the success of AV-101, and we cannot be certain that we will be able to obtain regulatory approval for, or successfully commercialize, AV-101, or any product candidate;



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failures or delays in the commencement or completion of our planned clinical trials could delay, prevent or limit our ability to generate revenue and continue our business;

we face significant competition, and if we are unable to compete effectively, we may not be able to achieve or maintain significant market penetration or improve our results of operations;

some of our programs have been partially supported by government grants, which may not be available to us in the future;

if we are unable to adequately protect our proprietary technology, or obtain and maintain issued patents that are sufficient to protect our product candidates, others could compete against us more directly, which would have a material adverse impact on our business, results of operations, financial condition and prospects; and

we have incurred significant net losses since inception and we will continue to incur substantial operating losses for the foreseeable future.

Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. You should be able to bear a complete loss of your investment.

Corporate information

VistaGen Therapeutics, Inc., a Nevada corporation, is the parent of VistaGen Therapeutics, Inc. (dba VistaStem Therapeutics, Inc.), a wholly-owned California corporation founded in 1998. 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. We have included our website address as a factual reference and do not intend it to be an active link to our website.

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**RISK FACTORS**

An investment in our securities involves a high degree of risk. You should consider the risks, uncertainties and assumptions described under Item 1A, "Risk Factors," in our Annual Report on Form 10-K for the fiscal year ended March 31, 2016, as well as subsequently filed Quarterly Reports on Form 10-Q, which risk factors are incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future and any prospectus supplement related to a particular offering. The risks and uncertainties we have described in our Annual Report on Form 10-K for the fiscal year ended March 31, 2016 and subsequent Quarterly Reports on Form 10-Q are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. The occurrence of any of these known or unknown risks might cause you to lose all or part of your investment in the offered securities.

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CAUTIONARY NOTES REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements contained in this prospectus and/or any applicable prospectus supplement other than statements of historical facts, 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,” “w,” “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 lead product candidate, AV-101, initially as an adjunctive treatment for MDD in patients with an inadequate response to standard, FDA-approved antidepressants, and subsequently as a treatment for additional CNS diseases and disorders;

our ability to initiate and complete our clinical trials and to advance our product candidates into additional clinical trials, including pivotal clinical trials, and successfully complete such clinical trials;

regulatory developments in the U.S. and foreign countries;

the performance of the U.S. National Institute of Mental Health, our third-party contractors involved with the manufacturer and production of our drug candidates for nonclinical and clinical development activities, contract research organizations and other third-party nonclinical and clinical development collaborators and regulatory service providers;

our ability to obtain and maintain intellectual property protection for our core assets;

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;

the loss of key scientific, clinical and nonclinical development, and/or management personnel, internally or from one of our third-party collaborators; 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, 2016 and subsequent Quarterly Reports on Form 10-Q, 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. We have included important factors in the cautionary statements included in this prospectus, as well as certain information incorporated by reference into this prospectus, that could cause actual future results or events to differ materially from the forward-looking statements that we make. 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 read this prospectus with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.

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RATIO OF EARNINGS TO FIXED CHARGES

Our ratio of earnings to fixed charges for recently completed fiscal years and any required interim periods will be specified in a prospectus supplement or in a document that we file with the SEC and incorporated by reference in the future.

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USE OF PROCEEDS

Unless otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities under this prospectus for general corporate purposes, including research and development, working capital and capital expenditures. We may use a portion of the net proceeds to fund production of, and nonclinical and clinical studies related to Phase 2 and Phase 3 development of, AV-101 and other drug candidates. We may also use the net proceeds from the sale of the securities under this prospectus to in-license, acquire or invest in complementary businesses, technologies, products or assets. However, we have no current commitments or obligations to do so. We may set forth additional information on the use of proceeds from the sale of the securities we offer under this prospectus in a prospectus supplement relating to the specific offering. We cannot currently allocate specific percentages of the net proceeds that we may use for the purposes specified above. As a result, our management will have broad discretion in the allocation of the net proceeds. Pending the application of the net proceeds, we intend to invest the net proceeds in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

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DESCRIPTION OF OUR CAPITAL STOCK

General

Our authorized capital stock consists of 30.0 million shares of common stock, \$0.001 par value per share, and 10.0 million shares of preferred stock, \$0.001 par value per share. The following is a description of our common stock and certain provisions of our Restated Articles of Incorporation (Articles), and our amended and restated bylaws (Bylaws), and certain provisions of Nevada law.

As of March 31, 2017, there were issued and outstanding, or reserved for issuance:

8,781,471 shares of common stock held by approximately 700 stockholders of record;

750,000 shares of common stock reserved for issuance upon conversion of 500,000 shares our Series A Preferred held by one institutional investor and one accredited individual investor;

1,160,240 shares of common stock reserved for issuance upon conversion of 1,160,240 shares of our Series B Preferred held by two institutional investors;

2,318,012 shares of common stock reserved for issuance upon conversion of 2,318,012 shares of our Series C Preferred held by one institutional investor;

4,549,006 shares of common stock that have been reserved for issuance upon exercise of outstanding warrants, with a weighted average exercise price of \$6.31 per share;

1,659,324 shares of common stock reserved for issuance upon exercise of outstanding stock options under our 1999 Stock Incentive Plan and our Amended and Restated 2016 Stock Incentive Plan, with a weighted average exercise price of \$4.76 per share; and

1,134,911 shares of common stock reserved for future issuance in connection with future grants under our Amended and Restated 2016 Stock Incentive Plan.

We may elect or be required to amend our Articles 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.

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 Articles and our Bylaws, copies of which are filed with

the SEC as exhibits to the registration statement of which this prospectus is a part.

Except as otherwise expressly provided in our Articles, 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 Articles, 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 Articles, 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, in its discretion, determines to issue dividend, and only at the times and in the amounts that our board of directors may determine. Our board of directors is not obligated to declare a dividend. We have not paid any dividends in the past and we do not intend to pay dividends in the foreseeable future.



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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.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A., Jersey City, New Jersey.

Preferred Stock

This section describes the general terms and provisions of our outstanding shares of 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 Articles 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 of directors can increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors 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.

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### Outstanding Series of Preferred Stock

Currently, there are three series of our preferred stock outstanding- Series A Convertible Preferred Stock, Series B 10% Convertible Preferred Stock, and Series C Convertible Preferred Stock. The rights and preferences associated with each series are summarized below.

#### Series A Preferred

##### General

In December 2011, our board of directors authorized the creation of a series of up to 500,000 shares of Series A Preferred. The Certificate of Designation of the Relative Rights and Preferences of the Series A Convertible Preferred Stock was filed with the Nevada Secretary of State effective December 20, 2011.

##### Conversion and Rank

At March 31, 2017, there were 500,000 shares of Series A Preferred outstanding, which shares are currently subject to beneficial ownership blockers and are exchangeable at the option of the holders into an aggregate of 750,000 shares of our common stock. The Series A Preferred ranks prior to our common stock for purposes of liquidation preference.

##### Conversion Restriction

At no time may a holder of shares of Series A Preferred convert shares of the Series A Preferred if the number of shares of common stock to be issued pursuant to such conversion would result in such holder beneficially owning (as determined in accordance with Section 13(d) of the Exchange Act and the rules thereunder) more than 9.99% of all of the common stock outstanding at such time; provided, however, that this limitation may be waived upon sixty-one (61) days' notice to us.

##### Dividend Rights

The Series A Preferred has no separate dividend rights. However, whenever the board of directors declares a dividend on the common stock, each holder of record of a share of Series A Preferred, or any fraction of a share of Series A Preferred, on the date set by the board of directors to determine the owners of the common stock of record entitled to receive such dividend (Record Date) shall be entitled to receive out of any assets at the time legally available therefor, an amount equal to such dividend declared on one share of common stock multiplied by the number of shares of common stock into which such share, or such fraction of a share, of Series A Preferred could be exchanged on the Record Date.

##### Voting Rights

The Series A Preferred has no voting rights, except with respect to transactions upon which the Series A Preferred shall be entitled to vote separately as a class, The common stock into which the Series A Preferred is exchangeable shall, upon issuance, have all of the same voting rights as other issued and outstanding shares of our common stock.

##### Liquidation Rights

In the event of the liquidation, dissolution or winding up of our affairs, after payment or provision for payment of our debts and other liabilities, the holders of Series A Preferred then outstanding shall be entitled to receive, out of our assets, if any, an amount per share of Series A Preferred calculated by taking the total amount available for distribution to holders of all of our outstanding common stock before deduction of any preference payments for the Series A Preferred, divided by the total of (x), all of the then outstanding shares of our common stock, plus (y) all of the shares of our common stock into which all of the outstanding shares of the Series A Preferred can be exchanged before any payment shall be made or any assets distributed to the holders of the common stock or any other junior stock.

#### Series B Preferred

##### General

In May 2015, our board of directors authorized the creation of a series of up to 4.0 million shares of Series B 10% Convertible Preferred Stock (Series B Preferred). The Certificate of Designation of the Relative Rights and Preferences of the Series B 10% Convertible Preferred Stock was filed with the Nevada Secretary of State on May 7, 2015 (the Series B Certificate of Designation).

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### Conversion

Each share of Series B Preferred is convertible, at the option of the holder (Voluntary Conversion), into one (1) share of the Company's common stock. All outstanding shares of Series B Preferred are also automatically convertible into common stock (Automatic Conversion) upon the closing or effective date of any of the following transactions or events: (i) a strategic transaction involving AV-101 with an initial up front cash payment to the Company of at least \$10.0 million; (ii) a registered public offering of Common Stock with aggregate gross proceeds to the Company of at least \$10.0 million; or (iii) for 20 consecutive trading days the Company's Common Stock trades at least 20,000 shares per day with a daily closing price of at least \$12.00 per share; provided, however, that Automatic Conversion and Voluntary Conversion are subject to certain beneficial ownership blockers set forth in Section 6 of the Certificate of Designation.

Following the completion of our \$10.9 million underwritten public offering of our common stock in May 2016, which public offering occurred concurrently with and facilitated our listing on the Nasdaq Capital Market, approximately 2.4 million shares of Series B Preferred were converted automatically into approximately 2.4 million shares of our common stock pursuant to the Automatic Conversion provision. At March 31, 2017, there were 1,160,240 shares of Series B Preferred outstanding, which shares are currently subject to beneficial ownership blockers and are exchangeable at the option of the respective holders by Voluntary Conversion, or pursuant to Automatic Conversion to the extent not otherwise subject to beneficial ownership blockers, into an aggregate of 1,160,240 shares of our common stock.

### Conversion Restriction

At no time may a holder of shares of Series B Preferred convert shares of the Series B Preferred, either by Voluntary Conversion or Automatic Conversion, if the number of shares of common stock to be issued pursuant to such conversion would result in such holder beneficially owning (as determined in accordance with Section 13(d) of the Exchange Act and the rules thereunder) more than 9.99% of all of the common stock outstanding at such time; provided, however, that this limitation may be waived upon sixty-one (61) days' notice to us.

### Rank

The Series B Preferred ranks prior to our common stock, and pari passu with the Series A Preferred for purposes of liquidation preference.

### Dividend Rights

Prior to either a Voluntary Conversion or Automatic Conversion, shares of Series B Preferred will accrue dividends, payable only in unregistered common stock, at a rate of 10% per annum (the Accrued Dividend). The Accrued Dividend will be payable on the date of either a Voluntary Conversion or Automatic Conversion solely in that number of shares of Common Stock equal to the Accrued Dividend.

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### Voting Rights

The Series B Preferred has no voting rights, except with respect to transactions upon which the Series B Preferred shall be entitled to vote separately as a class. The common stock into which the Series B Preferred shall be exchangeable shall, upon issuance, have all of the same voting rights as other issued and outstanding shares of our common stock.

### Liquidation Rights

Upon any liquidation, dissolution, or winding-up of the Company, whether voluntary or involuntary, the holders of Series B Preferred are entitled to receive out of the Company's assets, whether capital or surplus, an amount equal to the stated value of the Series B Preferred (\$7.00 per share), plus any accrued and unpaid dividends thereon, before any distribution or payment shall be made to the holders of any junior securities, including holders of our common stock. If the assets of the Company are insufficient to pay, in full, such amounts, then the entire assets to be distributed to the holders of the Series B Preferred shall be ratably distributed among the holders in accordance with the respective amounts that would be payable on such shares if all amounts payable thereon were paid in full.

### Series C Preferred

#### General

In January 2016, our board of directors authorized the creation of a series of up to 3.0 million shares of Series C Convertible Preferred Stock (Series C Preferred). The Certificate of Designation of the Relative Rights and Preferences of the Series C Convertible Preferred Stock was filed with the Nevada Secretary of State, effective January 25, 2016 (the Series C Certificate of Designation).

#### Conversion and Rank

At March 31, 2017, there were 2,318,012 shares of Series C Preferred outstanding, which shares of Series C Preferred are currently subject to beneficial ownership blockers and are exchangeable at the option of the holder into 2,318,012 shares of our common stock. The Series C Preferred ranks prior to our common stock for purposes of liquidation preference, and pari passu with the Series A Preferred and Series B Preferred.

#### Conversion Restriction

At no time may a holder of shares of Series C Preferred convert shares of the Series C Preferred if the number of shares of common stock to be issued pursuant to such conversion would result in such holder beneficially owning (as determined in accordance with Section 13(d) of the Exchange Act and the rules thereunder) more than 9.99% of all of the common stock outstanding at such time; provided, however, that this limitation may be waived upon sixty-one (61) days' notice to us.

#### Dividend Rights

The Series C Preferred has no separate dividend rights. However, whenever the board of directors declares a dividend on the common stock, each holder of record of a share of Series C Preferred, or any fraction of a share of Series C Preferred, on the date set by the board of directors to determine the owners of the common stock of record entitled to receive such dividend (Record Date) shall be entitled to receive out of any assets at the time legally available therefor,

an amount equal to such dividend declared on one share of common stock multiplied by the number of shares of common stock into which such share, or such fraction of a share, of Series C Preferred could be exchanged on the Record Date.

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Voting Rights

The Series C Preferred has no voting rights, except with respect to transactions upon which the Series C Preferred shall be entitled to vote separately as a class. The common stock into which the Series C Preferred is exchangeable shall, upon issuance, have all of the same voting rights as other issued and outstanding shares of our common stock.

Liquidation Rights

In the event of the liquidation, dissolution or winding up of our affairs, after payment or provision for payment of our debts and other liabilities, the holders of Series C Preferred then outstanding shall be entitled to receive, out of our assets, if any, an amount per share of Series C Preferred calculated by taking the total amount available for distribution to holders of all of our outstanding common stock before deduction of any preference payments for the Series C Preferred, divided by the total of (x), all of the then outstanding shares of our common stock, plus (y) all of the shares of our common stock into which all of the outstanding shares of the Series C Preferred can be exchanged before any payment shall be made or any assets distributed to the holders of the common stock or any other junior stock.

Shares of Preferred Stock Issuable Pursuant to this Prospectus

We will incorporate by reference as an exhibit to the registration statement, which includes this prospectus, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering. This description and the applicable prospectus supplement will include:

the title and stated value;

the number of shares authorized;

the liquidation preference per share;

the purchase price;

the dividend rate, period and payment date, and method of calculation for dividends;

whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

the procedures for any auction and remarketing, if any;

the provisions for a sinking fund, if any;

the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise such redemption and repurchase rights;

any listing of the preferred stock on any securities exchange or market;

whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;

voting rights, if any, of the preferred stock;

preemptive rights, if any;

restrictions on transfer, sale or other assignment, if any;

a discussion of any material United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

When we issue shares of preferred stock under this prospectus, the shares will fully be paid and nonassessable and will not have, or be subject to, any preemptive or similar rights.



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DESCRIPTION OF OUR 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, which may consist of warrants to purchase common stock and/or preferred stock in one or more series. Warrants may be offered independently or together with common stock and/or preferred stock 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.

In the event that we issue warrants, we will issue the warrants under a warrant agreement which 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.

The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement applicable to a particular series of warrants. We urge you to read the applicable prospectus supplements or free writing prospectus related to the warrants that we sell under this prospectus, as well as the complete warrant agreements that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement or free writing prospectus the terms relating to a series of warrants. If warrants for the purchase of common stock or preferred stock are offered, the prospectus supplement or free writing prospectus will describe the following terms, to the extent applicable:

the offering price and the aggregate number of warrants offered;

the total number of shares that can be purchased if a holder of the warrants exercises them and, in the case of warrants for preferred stock, the designation, total number and terms of the series of preferred stock that can be purchased upon exercise;

the designation and terms of any series of preferred stock with which the warrants are being offered and the number of warrants being offered with each share of common stock or preferred stock;

the date on and after which the holder of the warrants can transfer them separately from the related common stock or series of preferred stock;

the number of shares of common stock or preferred stock that can be purchased if a holder exercises the warrant and the price at which such common stock or preferred stock may be purchased upon exercise, including, if applicable, any provisions for changes to or adjustments in the exercise price and in the securities or other property receivable upon exercise;

the terms of any rights to redeem or call, or accelerate the expiration of, the warrants;

the date on which the right to exercise the warrants begins and the date on which that right expires;

federal income tax consequences of holding or exercising the warrants; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the warrants.

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### Exercise of Warrants

Each holder of a warrant is entitled to purchase the number of shares of common stock or preferred stock, as the case may be, at the exercise price described in the applicable prospectus supplement or free writing prospectus. After the close of business on the day when the right to exercise terminates (or a later date if we extend the time for exercise), unexercised warrants will become void.

A holder of warrants may exercise them by following the general procedure outlined below:

delivering to the warrant agent the payment required by the applicable prospectus supplement or free writing prospectus to purchase the underlying security;

properly completing and signing the reverse side of the warrant certificate representing the warrants; and

delivering the warrant certificate representing the warrants to the warrant agent within five business days of the warrant agent receiving payment of the exercise price.

If you comply with the procedures described above, your warrants will be considered to have been exercised when the warrant agent receives payment of the exercise price, subject to the transfer books for the securities issuable upon exercise of the warrant not being closed on such date. After you have completed those procedures and subject to the foregoing, we will, as soon as practicable, issue and deliver to you the common stock or preferred stock that you purchased upon exercise. If you exercise fewer than all of the warrants represented by a warrant certificate, a new warrant certificate will be issued to you for the unexercised amount of warrants. Holders of warrants will be required to pay any tax or governmental charge that may be imposed in connection with transferring the underlying securities in connection with the exercise of the warrants.

### Amendments and Supplements to the Warrant Agreements

We may amend or supplement a warrant agreement without the consent of the holders of the applicable warrants to cure ambiguities in the warrant agreement, to cure or correct a defective provision in the warrant agreement, or to provide for other matters under the warrant agreement that we and the warrant agent deem necessary or desirable, so long as, in each case, such amendments or supplements do not materially adversely affect the interests of the holders of the warrants.

### Warrant Adjustments

Unless the applicable prospectus supplement or free writing prospectus states otherwise, the exercise price of, and the number of securities covered by, a common stock warrant or preferred stock warrant will be adjusted proportionately if we subdivide or combine our common stock or preferred stock, as applicable. In addition, unless the prospectus supplement or free writing prospectus states otherwise, if we, without receiving payment:

issue capital stock or other securities convertible into or exchangeable for common stock or preferred stock, or any rights to subscribe for, purchase or otherwise acquire any of the foregoing, as a dividend or distribution to holders of our common stock or preferred stock;

pay any cash to holders of our common stock or preferred stock other than a cash dividend paid out of our current or retained earnings or other than in accordance with the terms of the preferred stock;

issue any evidence of our indebtedness or rights to subscribe for or purchase our indebtedness to holders of our common stock or preferred stock; or

issue common stock or preferred stock or additional stock or other securities or property to holders of our common stock or preferred stock by way of spinoff, split-up, reclassification, combination of shares or similar corporate rearrangement,

then the holders of common stock warrants and preferred stock warrants, as applicable, will be entitled to receive upon exercise of the warrants, in addition to the securities otherwise receivable upon exercise of the warrants and without paying any additional consideration, the amount of stock and other securities and property such holders would have been entitled to receive had they held the common stock or preferred stock, as applicable, issuable under the warrants on the dates on which holders of those securities received or became entitled to receive such additional stock and other securities and property.

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Except as stated above or as otherwise set forth in the applicable prospectus supplement or free writing prospectus, the exercise price and number of securities covered by a common stock warrant and preferred stock warrant, and the amounts of other securities or property to be received, if any, upon exercise of those warrants, will not be adjusted or provided for if we issue those securities or any securities convertible into or exchangeable for those securities, or securities carrying the right to purchase those securities or securities convertible into or exchangeable for those securities.

Holders of common stock warrants and preferred stock warrants may have additional rights under the following circumstances:

certain reclassifications, capital reorganizations or changes of the common stock or preferred stock, as applicable;

certain share exchanges, mergers, or similar transactions involving us and which result in changes of the common stock or preferred stock, as applicable; or

certain sales or dispositions to another entity of all or substantially all of our property and assets.

If one of the above transactions occurs and holders of our common stock or preferred stock are entitled to receive stock, securities or other property with respect to or in exchange for their securities, the holders of the common stock warrants and preferred stock warrants then outstanding, as applicable, will be entitled to receive upon exercise of their warrants the kind and amount of shares of stock and other securities or property that they would have received upon the applicable transaction if they had exercised their warrants immediately before the transaction.

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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 or free writing prospectus. If so described in a particular prospectus supplement or free writing prospectus, the specific terms of any series of units may differ from the general description of terms presented below.

As specified in the applicable prospectus supplement, we may issue units consisting of one or more shares of common stock, shares of preferred stock, warrants or any combination of such securities.

The applicable prospectus supplement will specify the following terms of any units in respect of which this prospectus is being delivered:

the terms of the units and of any of the shares of common stock, shares of preferred stock or warrants comprising the units, including whether and under what circumstances the securities comprising the units may be traded separately;

a description of the terms of any unit agreement governing the units;

if appropriate, a discussion of material U.S. federal income tax considerations; and

a description of the provisions for the payment, settlement, transfer or exchange of the units.

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DESCRIPTION OF CERTAIN PROVISIONS OF NEVADA LAW AND  
OUR ARTICLES OF INCORPORATION AND BYLAWS

Transactions with Interested Persons

Under the Nevada Revised Statutes, or 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 the board of directors or a committee of the board of directors and a majority of disinterested directors on the board of directors (or on the committee) authorized, approved or ratified the transaction;

the fact of the common directorship, office or financial interest is known to the stockholders and disinterested stockholders holding a majority of the shares held by disinterested stockholders authorized, approved or ratified the transaction;

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 of directors for action; or

the transaction was fair to the Company at the time it is authorized or approved.

Control Share Acquisition Provisions

Nevada law precludes an acquirer of the shares of a Nevada corporation who crosses one of three ownership thresholds (20%, 33 1/3% or 50%) from obtaining voting rights with respect to those shares unless the disinterested holders of a majority of the shares of the Company held by disinterested stockholders vote to accord voting power to those shares.

Combinations with Interested Stockholders

Under the NRS, except under certain circumstances, a corporation is not permitted to engage in a business combination with any "interested stockholder" for a period of two years following the date such stockholder became an interested stockholder. An "interested stockholder" is a person or entity who owns 10% or more of the outstanding shares of voting stock. Nevada permits a corporation to opt out of the application of these business combination provisions by so providing in the articles of incorporation or bylaws. The Company's Bylaws contain a provision opting out of the application of these business combination provisions.





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PLAN OF DISTRIBUTION

We may sell the securities described in this prospectus to or through underwriters or dealers, through agents, or directly to one or more purchasers. A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

the name or names of any underwriters or agents, if applicable;

the purchase price of the securities and the proceeds we will receive from the sale;

any over-allotment options under which underwriters may purchase additional securities from us;

any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;

any public offering price;

any discounts or concessions allowed or reallocated or paid to dealers; and

any securities exchange or market on which the securities may be listed.

Only underwriters named in a prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement that names the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act of 1933, as amended (the Securities Act), or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

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

Any underwriters who are qualified market makers on the NASDAQ Capital Market may engage in passive market making transactions in accordance with Rule 103 of Regulation M during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

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LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Disclosure Law Group, a Professional Corporation, San Diego, California (DLG). Partners of DLG beneficially own an aggregate of 65,987 registered and/or restricted shares of our common stock.

EXPERTS

The financial statements of the Company incorporated in this prospectus by reference to the Annual Report on Form 10-K for the fiscal year ended March 31, 2016 have been audited by OUM & Co. LLP, an independent registered public accounting firm, as set forth in their report thereon.

WHERE YOU CAN FIND MORE INFORMATION

We are a public company and file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street, NE, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available, at no charge, to the public at the SEC's website at <http://www.sec.gov>.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

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

Annual Report on Form 10-K for the fiscal year ended March 31, 2016, filed on June 24, 2016;

Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed on August 12, 2016;

Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed on November 14, 2016;

Quarterly Report on Form 10-Q for the quarter ended December 31, 2016, filed on February 13, 2017;

Current Report on Form 8-K filed on May 16, 2016;

Current Report on Form 8-K filed on June 22, 2016;

Current Report on Form 8-K filed on August 17, 2016;

Current Report on Form 8-K filed on September 27, 2016;

Current Report on Form 8-K filed on December 14, 2016;

Current Report on Form 8-K filed on March 29, 2017; and

The description of our common stock contained in the Registration Statement on Form 8-A filed pursuant to Section 12(b) of the Exchange Act on May 3, 2016, including any amendment or report filed with the SEC 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 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 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.  
Attn: Corporate Secretary  
343 Allerton Avenue  
South San Francisco, CA 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.

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Shares

Common Stock

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Prospectus Supplement

February , 2019

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William Blair