

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

**FORM S-1**

REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

**VOLITIONRX LIMITED**

(Exact name of registrant as specified in its charter)

<b>Delaware</b>	<b>2835</b>	<b>91-1949078</b>
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

**1489 West Warm Springs Road, Suite 110  
Henderson, Nevada 89014  
+1 (646) 650-1351**

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

**Agents and Corporations, Inc.  
1201 Orange Street, Suite 600  
Wilmington, Delaware 19801  
+1 (800) 759-2248**

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

*Copies to:*

**Marc G. Alcer, Esq.  
Stradling Yocca Carlson & Rauth LLP  
660 Newport Center Drive, Suite 1600  
Newport Beach, CA 92660  
+1 (949) 725-4000**

**Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.**

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act. ☐

**The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment, which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 4, 2025

PRELIMINARY PROSPECTUS



VOLITIONRX LIMITED

Up to 448,500 Underwriter Warrant Shares  
Up to 3,557,273 Pre-Funded Warrant Shares  
Up to 12,727,273 Series A Warrant Shares  
Up to 12,727,273 Series B Warrant Shares  
Up to 381,818 Placement Agent Warrant Shares  
Up to 2,857,389 Form A Warrant Shares  
Up to 1,428,693 Form B Warrant Shares  
Up to 1,739,087 Investor Warrant Shares

This prospectus relates to the offering of up to an aggregate 35,867,306 shares of our common stock (this “Offering”), par value \$0.001 per share (“common stock”), issuable upon the exercise of (a) underwriter warrants to purchase up to 448,500 shares of our common stock (the “Underwriter Warrants” and such shares issuable upon exercise of the Underwriter Warrants, the “Underwriter Warrant Shares”), (b) pre-funded warrants to purchase up to 3,557,273 shares of common stock (the “Pre-Funded Warrants” and such shares issuable upon the exercise of the Pre-Funded Warrants, the “Pre-Funded Warrant Shares”), (c) Series A common stock purchase warrants to purchase up to 12,727,273 shares of common stock (the “Series A Warrants” and such shares issuable upon the exercise of the Series A Warrants, the “Series A Warrant Shares”), (d) Series B common stock purchase warrants to purchase up to 12,727,273 shares of common stock (the “Series B Warrants” and such shares issuable upon the exercise of the Series B Warrants, the “Series B Warrant Shares”), (e) placement agent warrants to purchase up to 381,818 shares of common stock (the “Placement Agent Warrants” and such shares issuable upon the exercise of the Placement Agent Warrants, the “Placement Agent Warrant Shares”), (f) Form A common stock purchase warrants to purchase up to 2,857,389 shares of common stock (the “Form A Warrants” and such shares issuable upon the exercise of the Form A Warrants, the “Form A Warrant Shares”), (g) Form B common stock purchase warrants to purchase up to 1,428,693 shares of common stock (the “Form B Warrants” and such shares issuable upon the exercise of the Form B Warrants, the “Form B Warrant Shares”), and (h) investor warrants to purchase up to 1,739,087 shares of common stock (the “Investor Warrants” and such shares issuable upon the exercise of the Investor Warrants, the “Investor Warrant Shares”).

The Underwriter Warrant Shares, Pre-Funded Warrant Shares, Series A Warrant Shares, Series B Warrant Shares, Placement Agent Warrant Shares, Form A Warrant Shares, Form B Warrant Shares, and Investor Warrant Shares are collectively referred to herein as the “Warrant Shares,” and the Underwriter Warrants, Pre-Funded Warrants, Series A Warrants, Series B Warrants, Placement Agent Warrants, Form A Warrants, Form B Warrants, and Investor Warrants are collectively referred to herein as the “Warrants.”

The Warrant Shares registered hereunder were previously registered under a Registration Statement on Form S-3 originally filed on September 24, 2021, as amended (File No. 333-259783), with the Securities and Exchange Commission (the “SEC”) under the Securities Act of 1933, as amended (the “Securities Act”), and declared effective on November 8, 2021 (the “Shelf Registration Statement”). The Company is now registering the Warrant Shares on this Form S-1, and intends to seek to withdraw the Warrant Shares from the Shelf Registration Statement pursuant to Rule 477 of the Securities Act upon the declaration of effectiveness of this Form S-1 by the SEC. The Company is not registering any shares hereunder other than shares that were previously registered under the Shelf Registration Statement.

For additional information regarding the Warrant Shares offered in this Offering, please refer to the section of this prospectus titled “*The Offering*.”

As of April 3, 2025, there were 100,746,467 shares of common stock outstanding. If all 35,867,306 Warrant Shares offered under this prospectus were issued and outstanding as of the date hereof, such shares would represent approximately 26.3% of the total number of shares of our common stock outstanding and approximately 38.4% of the total number of outstanding shares held by non-affiliates, in each case as of April 3, 2025. However, the number of shares ultimately offered for sale hereunder is subject to the Warrant holders’ exercise of their Warrants.

There are substantial risks to our stockholders as a result of the sale and issuance of our common stock upon the exercise, if any, of the Warrants. These risks include substantial dilution and significant declines in our stock price. See the section of this prospectus titled “*Risk Factors*.” Issuances of our common stock in this Offering will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted as a result of any such issuance. Although the number of shares of our common stock that our existing stockholders own will not decrease, the shares owned by our existing stockholders will represent a smaller percentage of our total outstanding shares after any such issuances to the Warrant holders. See the section of this prospectus titled “*Dilution*.”

Our common stock is listed on the NYSE American under the symbol “VNRX.” On April 3, 2025, the last reported sale price of our common stock on the NYSE American was \$0.5576 per share.

	Exercise Price Per Warrant Share	Total
Underwriter Warrant Shares	\$ 2.00	\$ 897,000.00
Pre-Funded Warrant Shares	\$ 0.001	\$ 3,557.27
Series A Warrant Shares	\$ 0.57	\$ 7,254,545.61
Series B Warrant Shares	\$ 0.57	\$ 7,254,545.61
Placement Agent Warrant Shares	\$ 0.6875	\$ 262,499.88
Form A Warrant Shares	\$ 0.5722	\$ 1,634,997.99
Form B Warrant Shares	\$ 0.71525	\$ 1,021,872.67
Investor Warrant Shares	\$ 0.66	\$ 1,147,797.42
Proceeds to us, before expenses	\$ 0.5430 <sup>(1)</sup>	\$ 19,476,816.44

(1) Reflects the weighted average exercise price per Warrant Share.

**Investing in our securities involves a high degree of risk. You should carefully consider all of the information set forth in this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference in this prospectus supplement before deciding to invest in our securities. Please see “*Risk Factors*” on page 9 of this prospectus to read about factors you should consider before buying our securities.**

**Neither the SEC nor any state securities commission has approved or disapproved of the securities being offered by this prospectus supplement or the prospectus to which it relates, or determined if this prospectus supplement or the prospectus to which it relates are truthful or complete. Any representation to the contrary is a criminal offense.**

The date of this prospectus is , 2025.

## TABLE OF CONTENTS

	<b>Page</b>
<a href="#"><u>ABOUT THIS PROSPECTUS</u></a>	1
<a href="#"><u>PROSPECTUS SUMMARY</u></a>	2
<a href="#"><u>THE OFFERING</u></a>	4
<a href="#"><u>SECURITIES OFFERED</u></a>	6
<a href="#"><u>RISK FACTORS</u></a>	8
<a href="#"><u>CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</u></a>	12
<a href="#"><u>USE OF PROCEEDS</u></a>	14
<a href="#"><u>MARKET INFORMATION AND DIVIDEND POLICY</u></a>	16
<a href="#"><u>DILUTION</u></a>	16
<a href="#"><u>DESCRIPTION OF CAPITAL STOCK</u></a>	17
<a href="#"><u>PLAN OF DISTRIBUTION</u></a>	28
<a href="#"><u>MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS</u></a>	29
<a href="#"><u>LEGAL MATTERS</u></a>	34
<a href="#"><u>EXPERTS</u></a>	34
<a href="#"><u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u></a>	34
<a href="#"><u>DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES</u></a>	35
<a href="#"><u>WHERE YOU CAN FIND MORE INFORMATION</u></a>	35

## ABOUT THIS PROSPECTUS

This prospectus is part of a Registration Statement on Form S-1 (as amended from time to time, the “Registration Statement”). You should read this prospectus, and the related exhibits filed with the SEC, together with the additional information described under the heading “*Where You Can Find More Information*,” before making your investment decision. All summaries in this prospectus are qualified in their entirety by the actual documents. You should rely only on the information provided in or incorporated by reference in this prospectus, in any prospectus supplement or in a related free writing prospectus, or documents to which we otherwise refer you. In addition, 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.

This prospectus includes important information about us, the securities being offered and other information you should know before investing in our securities. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus, even though this prospectus is delivered, or securities are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in this prospectus in making your investment decision. We may file a prospectus supplement or post-effective amendment to the Registration Statement of which this prospectus forms a part that may contain material information relating to this Offering. The prospectus supplement or post-effective amendment may also add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or post-effective amendment, you should rely on the prospectus supplement or post-effective amendment, as applicable. Before purchasing any securities, you should carefully read this prospectus, any post-effective amendment, and any applicable prospectus supplement, together with the additional information described in the “*Where You Can Find More Information*” section of this prospectus.

We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this prospectus or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for and can provide no assurance as to the reliability of, any other information that others may give you. The information contained in this prospectus or contained in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: We have not done anything that would permit this Offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus outside the United States.

Unless otherwise indicated, information contained in this prospectus or incorporated by reference in this prospectus concerning our industry, including our general expectations and market opportunity, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry’s future performance are necessarily uncertain due to a variety of factors, including those described in “*Risk Factors*” beginning on page 9 of this prospectus. These and other factors could cause our future performance to differ materially from our assumptions and estimates.

Except as otherwise indicated by the context, references in this prospectus to “Company,” “VolitionRx,” “Volition,” “we,” “us,” and “our” are references to VolitionRx Limited and its wholly owned subsidiaries, Singapore Volition Pte. Limited, Belgian Volition SRL, Volition Diagnostics UK Limited, Volition America, Inc. and Volition Global Services SRL, as well as majority owned subsidiary Volition Veterinary Diagnostics Development LLC. Additionally, unless otherwise specified, all references to “\$” refer to the legal currency of the United States of America.

Nucleosomics<sup>TM</sup>, Nu.Q<sup>®</sup>, Capture-PCR<sup>TM</sup> and Capture-Seq<sup>TM</sup> and their respective logos are trademarks and/or service marks of VolitionRx and its subsidiaries. All other trademarks, service marks and trade names referred to in this prospectus are the property of their respective owners.

**This prospectus is an offer to sell only the securities offered hereby, and only under circumstances and in jurisdictions where it is lawful to do so. We are not making an offer to sell these securities in any state or jurisdiction where the offer or sale is not permitted.**

## PROSPECTUS SUMMARY

*This summary provides a brief overview of the key aspects of our business and our securities. The reader should read the entire prospectus carefully, especially the risks of investing in our securities discussed under the section of this prospectus titled “Risk Factors,” and the risks described in Part I, Item 1A, Risk Factors of our Annual Report on Form 10-K for the fiscal year ended December 31, 2024 (the “Annual Report”). Some of the statements contained in this prospectus, including statements under this section and “Risk Factors,” and our Annual Report are forward-looking statements and may involve a number of risks and uncertainties. Our actual results and future events may differ significantly based upon a number of factors. The reader should not put undue reliance on the forward-looking statements in this document, which speak only as of the date on the cover of this prospectus. See the section of this prospectus titled “Cautionary Note Regarding Forward-Looking Statements.”*

### Overview

Imagine a world where diseases like cancer and sepsis can be diagnosed early and monitored easily using routine blood tests. That’s the world Volition is trying to build by developing its innovative family of simple, easy to use, cost-effective blood tests.

Volition is a multi-national epigenetics company. It has patented technologies that use chromosomal structures, such as nucleosomes, and transcription factors as biomarkers in cancer and other diseases. The tests in the Company’s product portfolio detect certain characteristic changes that occur from the earliest stages of disease, enabling early detection and offering a better way to monitor disease progression and a patient’s response to treatment.

The tests offered by Volition and its subsidiaries are designed to detect and monitor a range of life-altering diseases, including certain cancers and diseases associated with NETosis, such as sepsis. Early diagnosis and monitoring have the potential to not only prolong the life of patients but also improve their quality of life.

We have several key pillars of focus:

- **Nu.Q® Vet** - cost-effective, easy-to-use blood tests for dogs and other companion animals. The Nu.Q® Vet Cancer Test is commercially available as a cancer screening test in dogs.
- **Nu.Q® NETs** - detects diseases associated with NETosis such as sepsis.
- **Nu.Q® Discover** - a complete solution to profiling nucleosomes.
- **Nu.Q® Cancer** - from screening, diagnosis and staging, therapy decision, planning and treatment to monitoring response to treatment and disease progression.
- **Capture-PCR™** - isolating and capturing circulating tumor-derived DNA from plasma samples for early cancer detection.

The Company has grown from a single two-meter lab bench at the University of Namur in Belgium to a purpose-built 17,000 square foot lab and 10,000 square foot production facility in Gembloux, Belgium, an Innovation Lab in California, and offices in California, London and Nevada. We now have a team of over 80 dedicated employees, spanning a wide range of disciplines; all united in our mission to improve outcomes for patients.

Cultivating successful, ongoing relationships with stakeholders worldwide has been fundamental to Volition’s development. We have fostered ties with leading academic institutions, clinical centers of excellence, multi-national diagnostic and pharmaceutical companies and financial institutions across the globe.

### Risk Factor Summary

We operate in a rapidly changing environment that involves a number of risks that could materially affect our business, financial condition or future results, some of which are beyond our control. In addition, investing in our common stock involves substantial risk. Before you invest in our Warrant Shares, you should carefully consider all of the information in this prospectus, including matters set forth under the section of this prospectus titled “Risk Factors,” as well as the risks described in Part I, Item 1A, Risk Factors of our Annual Report. These risks include, but are not limited to, the risks set forth in our Annual Report, as well as the following:

### ***Risks Related to this Offering and Ownership of Our Securities***

- The market prices and trading volume of our stock may be volatile.
- We have identified material weaknesses in our internal control over financial reporting that have not yet been remediated, and although we are working to address such weaknesses, the failure to address these material weaknesses, or the identification of any others, could impact the reliability of our financial reporting and harm investors' views of us, which could adversely impact our stock price.
- We have a "going concern" opinion from our auditors, indicating the possibility that we may not be able to continue to operate.
- Certain of the Warrants may never be in the money and may expire worthless.
- If we fail to comply with the NYSE American's continued listing requirements, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.
- Our Second Amended and Restated Certificate of Incorporation exculpates our officers and directors from certain liability to our Company and our stockholders.
- Our corporate governance documents, and certain corporate laws applicable to us, and share ownership by executive officers and directors, could make a takeover attempt, which may be beneficial to our stockholders, more difficult.
- We do not expect to pay dividends in the foreseeable future.
- We may in the future issue additional shares of our common stock which would reduce investors' ownership interests in the Company, and which may cause our stock price to decline.
- Future sales of our common stock could depress the market price of our common stock.
- If equity research analysts do not publish research or reports about our business, or if they do publish such reports but issue unfavorable commentary or downgrade our common stock, the price and trading volume of our common stock could decline.
- We are a smaller reporting company and a non-accelerated filer, and we cannot be certain if the reduced disclosure requirements applicable to our filing status, as well as the exemption from the requirement to provide an auditor's attestation report regarding the effectiveness of our internal controls, will make our common stock less attractive to investors.

### ***Channels For Disclosure of Information***

We announce material information to the public through filings with the SEC, the "Investors" section on our website ([www.volition.com](http://www.volition.com)), press releases, public conference calls, and public webcasts. We encourage investors, the media and others to follow the channels listed above and to review the information disclosed through such channels. Any updates to the list of disclosure channels through which we will announce information will be posted on the investor relations page on our website. The inclusion of our website address in this prospectus is an inactive textual reference only.

### ***Implications of Being a Smaller Reporting Company***

We are a "smaller reporting company" and accordingly may provide less public disclosure than larger public companies. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

### ***Corporate Information***

We are a Delaware corporation. Our principal executive offices are located at 1489 West Warm Springs Road, Suite 110, Henderson, Nevada 89014, and our telephone number is +1 (646) 650-1351. We maintain a website at [www.volition.com](http://www.volition.com). Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to such reports are available to you free of charge through the "Investors" section of [www.volition.com](http://www.volition.com) as soon as practicable after such materials have been electronically filed with, or furnished to, the SEC. The information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be part of this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website. Investors should not rely on any such information in deciding whether to purchase our Common Stock.

## THE OFFERING

This Offering relates to the issuance and sale of up to an aggregate 35,867,306 shares of our common stock, consisting of up to (a) 448,500 Underwriter Warrant Shares, (b) 3,557,273 Pre-Funded Warrant Shares, (c) 12,727,273 Series A Warrant Shares, (d) 12,727,273 Series B Warrant Shares, (e) 381,818 Placement Agent Warrant Shares, (f) 2,857,389 Form A Warrant Shares, (g) 1,428,693 Form B Warrant Shares, and (h) 1,739,087 Investor Warrant Shares, in each case as further described below.

**The Warrant Shares registered hereunder were previously registered under the Shelf Registration Statement. The Company is now registering the Warrant Shares on this Form S-1, and intends to seek to withdraw the Warrant Shares from the Shelf Registration Statement pursuant to Rule 477 of the Securities Act upon the declaration of effectiveness of this Form S-1 by the SEC (the “Rule 477 Withdrawal”). The Company is not registering any shares hereunder other than shares that were previously registered under the Shelf Registration Statement.**

### *June 2023 Underwriter Warrant Shares*

The 448,500 Underwriter Warrant Shares offered hereunder are issuable to Prime Executions, Inc., doing business as Freedom Capital Markets (“Freedom”), upon Freedom’s exercise in full of the Underwriter Warrants. The Underwriter Warrants and Underwriter Warrant Shares were offered and sold to Freedom pursuant to that certain underwriting agreement, dated June 1, 2023, we entered into with Freedom, as representative of the underwriters named therein (collectively, the “Underwriters”), pursuant to which we also issued and sold an aggregate 14,950,000 shares of common stock (the “Underwriter Common Shares” and, together with the Underwriter Warrants and Underwriter Warrant Shares, the “Underwriter Securities”) to the Underwriters at a public offering price of \$1.27 per share, less a 7.0% underwriting commission (the “June 2023 Offering”). The Underwriter Warrants are comprised of (i) 390,000 Underwriter Warrants that have an exercise price of \$2.00 per share and became exercisable December 4, 2023, and terminate on June 5, 2028, and (ii) 58,500 Underwriter Warrants that have an exercise price of \$2.00 per share and became exercisable December 20, 2023, and terminate on June 23, 2028.

We offered and sold Underwriter Securities pursuant to our Shelf Registration Statement, as amended (including the prospectus supplement with the SEC on June 1, 2023 in connection with the June 2023 Offering). We intend to seek to withdraw the Underwriter Warrant Shares from registration under the Shelf Registration Statement pursuant to the Rule 477 Withdrawal, and we are now offering such Underwriter Warrant Shares hereunder. However, the Underwriter Common Shares and Underwriter Warrants remain registered under the Shelf Registration Statement and are not being offered or sold hereunder.

### *August 2024 Pre-Funded Warrant Shares, Series A Warrant Shares, Series B Warrant Shares, and Placement Agent Warrant Shares*

The 3,557,273 Pre-Funded Warrant Shares, 12,727,273 Series A Warrant Shares, and 12,727,273 Series B Warrant Shares offered hereunder are issuable upon the exercise in full of the Pre-Funded Warrants, Series A Warrants, and Series B Warrants, respectively, which were issued and sold pursuant to that certain securities purchase agreement, dated August 8, 2024, we entered into with an institutional investor, which provided for the issuance and sale, in a registered direct offering, of 9,170,000 shares of our common stock (the “Common Shares”), the Pre-Funded Warrants, the Series A Warrants and the Series B Warrants. Each Common Share was issued and sold together with one Series A Warrant and one Series B Warrant at a combined offering price of \$0.55 per share and accompanying Warrants, and each Pre-Funded Warrant was issued and sold together with one Series A Warrant and one Series B Warrant at a combined offering price of \$0.549 per share and accompanying Warrants (the “August 2024 Offering”).

Each Pre-Funded Warrant has an exercise price of \$0.001 per share, was immediately exercisable upon its issuance, and can be exercised at any time until exercised in full. Each Series A Warrant and Series B Warrant has an exercise price of \$0.57 per share.

Each Series A Warrant became exercisable on February 12, 2025 (the “Initial Exercise Date”), and remains exercisable until the earlier of (a) the two-year anniversary of the Initial Exercise Date and (b) the date that is 60 days following our public announcement on a Current Report on Form 8-K (the “Series A Milestone Announcement”) of the occurrence of us entering into one or more agreements relating to the development and commercialization of a product, technology, or process in the human space, provided at least one such agreement covers a territory that includes all or a part of the European Union, the United States, the United Kingdom, Japan, or China, and which, during the term of all such agreements and pursuant to the terms thereof, collectively such agreements include aggregate (i) potential milestone payments to the Company of at least \$10.0 million, or (ii) potential milestone payments to the Company of at least \$5.0 million and potential total payments of at least \$20.0 million (each, a “Series A Milestone Event”).



Each Series B Warrant became exercisable on the Initial Exercise Date, and remains exercisable until the earlier of (A) the five-year anniversary of the Initial Exercise Date and (B) the date that is six months following our public announcement on a Current Report on Form 8-K (the “Series B Milestone Announcement”) of the occurrence of us or a third party receiving the first U.S. Food and Drug Administration (“FDA”) approval of a product, technology, or process in the human space utilizing the Company’s intellectual property, provided the FDA’s approval of a protocol for a clinical trial of a product, technology, or process in the human space, or the FDA’s acceptance of data from in vitro trials or in vivo animal trials will not constitute “FDA approval” for purposes of achieving the milestone.

This prospectus also includes the 381,818 Placement Agent Warrant Shares (collectively with the Pre-Funded Warrant Shares, Series A Warrant Shares, and Series B Warrant Shares, the “August 2024 Warrant Shares”) issuable upon the exercise of the Placement Agent Warrants in full (collectively with the Pre-Funded Warrants, Series A Warrants, and Series B Warrants, the “August 2024 Warrants”) issued to H.C. Wainwright & Co., LLC (“Wainwright”), which acted as our placement agent in connection with the August 2024 Offering. The Placement Agent Warrants have substantially the same terms as the Series B Warrants, except that the Placement Agent Warrants have an exercise price of \$0.6875 per share and will be exercisable until the earlier of (a) August 8, 2029 and (b) the date that is six months following the Series B Milestone Announcement.

We offered and sold the Common Shares, August 2024 Warrants, and August 2024 Warrant Shares pursuant to the Shelf Registration Statement and that certain prospectus supplement filed with the SEC on August 12, 2024 in connection with the August 2024 Offering. We intend to seek to withdraw the 2024 Warrant Shares from registration under the Shelf Registration Statement pursuant to the Rule 477 Withdrawal, and we are now offering such August 2024 Warrant Shares hereunder. However, the Common Shares and August 2024 Warrants remain registered under the Shelf Registration Statement and are not being offered or sold hereunder.

#### ***December 2024 Form A Warrant Shares and Form B Warrant Shares***

The 2,857,389 Form A Warrant Shares and 1,428,693 Form B Warrant Shares (together with the Form A Warrant Shares, the “Purchaser Warrant Shares”) offered hereunder are issuable upon the exercise in full of the Form A Warrants and Form B Warrants (together with the Form A Warrants, the “Purchaser Warrants”) issued and sold pursuant to that certain securities purchase agreement, dated December 5, 2024, we entered into with the several purchasers set forth on the signature pages thereto, which provided for the issuance and sale, in a registered direct offering, of the offer and sale of (i) 445,648 shares of our common stock to certain of our directors and executive officers at an offering price of \$0.5722 per share (the “Insider Shares”), and (ii) 2,857,389 shares of our common stock to certain of our existing stockholders (the “Non-Insider Shares”), together with the Purchaser Warrants, at a combined offering price of \$0.5722 per Non-Insider Share and accompanying Purchaser Warrants (the “December 2024 Offering”).

Each Form A Warrant has an exercise price per share of \$0.5722 and each Form B Warrant has an exercise price per share of \$0.71525. The Purchaser Warrants became exercisable on December 9, 2024, and terminate December 9, 2029.

We offered and sold the Insider Shares, Non-Insider Shares, Purchaser Warrants, and Purchaser Warrant Shares pursuant to the Shelf Registration Statement and that certain prospectus supplement filed with the SEC on December 5, 2024 in connection with the December 2024 Offering. We intend to seek to withdraw the Purchaser Warrant Shares from registration under the Shelf Registration Statement pursuant to the Rule 477 Withdrawal, and we are now offering such Purchaser Warrant Shares hereunder. However, the Insider Shares, Non-Insider Shares, and Purchaser Warrants remain registered under the Shelf Registration Statement and are not being offered or sold hereunder.

#### ***March 2025 Investor Warrant Shares***

The 1,739,087 Investor Warrant Shares offered hereunder are issuable upon the exercise in full of the Investor Warrants, which were issued and sold pursuant to that certain securities purchase agreement, dated March 24, 2025, we entered into with the several purchasers set forth on the signature pages thereto, which provided for the issuance and sale, in a registered direct offering, of (i) 2,363,636 shares of the Company’s common stock to certain of our directors and executive officers, and certain of our existing stockholders, at an offering price of \$0.55 per share (the “Shares”), and (ii) the Investor Warrant Shares, together with the Investor Warrants, at a combined offering price of \$0.55 per Investor Warrant Share and accompanying Investor Warrant, to certain other existing stockholders of the Company and new investors (the “March 2025 Offering”).

Each Investor Warrant has an exercise price per share of \$0.66. The Investor Warrants became exercisable on or after March 26, 2025, and terminate March 26, 2030.

We offered and sold the Shares, Investor Warrants, and Investor Warrant Shares pursuant to the Shelf Registration Statement and that certain prospectus supplement filed with the SEC on March 26, 2025 in connection with the March 2025 Offering. We intend to seek to withdraw the Investor Warrant Shares from registration under the Shelf Registration Statement pursuant to the Rule 477 Withdrawal, and we are now offering such Investor Warrant Shares hereunder. However, the Shares and Investor Warrants remain registered under the Shelf Registration Statement and are not being offered or sold hereunder.

## SECURITIES OFFERED

*The following summary contains basic information about this Offering and our Common Stock and is not intended to be complete. It does not contain all of the information that may be important to you. For a more complete understanding of our Common Stock, please refer to “Description of Capital Stock.”*

<b>Common stock offered by us</b>	Up to 35,867,306 Warrant Shares we will issue to the warrant holders upon their exercise, if any, of the Warrants.
-----------------------------------	--

<b>Common stock outstanding prior to this Offering<sup>(1)</sup></b>	100,200,208 shares of common stock.
--	-------------------------------------

<b>Common stock to be outstanding after this Offering<sup>(1)</sup></b>	Up to 136,067,514 shares of common stock, assuming the exercise in full of the Warrants.
---	--

<b>Use of proceeds</b>	We may receive proceeds from the exercise of the Warrants to the extent these warrants are exercised for cash. The Underwriter Warrants, Pre-Funded Warrants, Series A Warrants, Series B Warrants, and Placement Agent Warrants, however, are exercisable on a cashless basis in certain circumstances. If all of the Warrants are exercised for cash in full, the gross proceeds will be approximately \$19.5 million. We currently anticipate that we will use the net proceeds from this Offering for research and continued product development, clinical studies, product commercialization, working capital and other general corporate purposes. See the section of this prospectus titled “Use of Proceeds.”
------------------------	---

<b>NYSE American symbol</b>	“VNRX”
-----------------------------	--------

<b>Risk factors</b>	Investing in our Common Stock is speculative and involves a high degree of risk. See the section of this prospectus titled “Risk Factors” beginning on page 9 and other information appearing elsewhere in this prospectus for a discussion of factors you should carefully consider before deciding whether to purchase our Common Stock. Additional risks and uncertainties not presently known to us or that we currently deem to be immaterial may also impair our business and operations.
---------------------	---

(1) Unless otherwise indicated, the number of shares of our common stock to be outstanding immediately after this Offering is based on 96,097,485 shares of our common stock outstanding as of December 31, 2024, plus the 4,102,723 shares of common stock issued in connection with a registered direct offering we consummated on March 26, 2025 (the “March 2025 Offering”), and excludes, unless otherwise noted, as of December 31, 2024:

- 448,706 shares of our common stock sold through an “at the market” offering subsequent to December 31, 2024, pursuant to the equity distribution agreement entered into with Jefferies LLC;
- 4,637,748 shares of our common stock issuable upon the exercise of options under our 2011 Equity Incentive Plan and 2015 Stock Incentive Plan, with a weighted average exercise price of \$3.88 per share;
- 414,000 shares of our common stock issuable upon the exercise of common stock warrants outstanding, with a weighted average exercise price of \$4.20 per share;
- 448,500 shares of our common stock issuable upon the exercise of the Underwriter Warrants outstanding, with an exercise price of \$2.00 per share;

- 3,557,273 shares of our common stock issuable upon the exercise of the Pre-Funded Warrants outstanding, with an exercise price of \$0.001 per share;
- 25,454,546 shares of our common stock issuable upon the exercise of the Series A Warrants and Series B Warrants outstanding, with a weighted average exercise price of \$0.57 per share;
- 381,818 shares of our common stock issuable upon the exercise of the Placement Agent Warrants outstanding, with an exercise price of \$0.6875 per share;
- 2,857,389 shares of our common stock issuable upon the exercise of the Form A Warrants outstanding, with an exercise price of \$0.5722 per share;
- 1,428,693 shares of our common stock issuable upon the exercise of the Form B Warrants outstanding, with an exercise price of \$0.71525 per share;
- 1,739,087 shares of our common stock issuable upon the exercise of the Investor Warrants outstanding with an exercise price of \$0.66 per share;
- 3,392,316 restricted stock units (“RSUs”) outstanding under our 2015 Stock Incentive Plan, with a weighted average price of \$0.80 per share;
- an aggregate of 182,252 shares of common stock reserved for future issuance under our 2015 Stock Incentive Plan;
- 1,000,000 RSUs outstanding under our 2024 Stock Incentive Plan, with a weighted average price of \$0.207 per share; and
- an aggregate of 6,500,000 shares of common stock reserved for future issuance under our 2024 Stock Incentive Plan.

Unless otherwise indicated, all information in this prospectus supplement reflects and assumes the following:

- no additional issuances, expirations or forfeitures of options and warrants after December 31, 2024;
- no exercise of the outstanding options or settlement of outstanding RSUs after December 31, 2024;
- no exercise of the outstanding warrants after December 31, 2024; and
- no exercise of the Warrants.

To the extent outstanding options or warrants are exercised, or RSUs are settled, you may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

## RISK FACTORS

*Our short and long-term success is subject to numerous risks and uncertainties, many of which involve factors that are difficult to predict or beyond our control. As a result, investing in our common stock involves substantial risk. Before deciding to purchase, hold or sell our common stock, stockholders, and potential stockholders should carefully consider the risks and uncertainties described below, in addition to the other information contained in or incorporated by reference into this prospectus, as well as the other information we file with the SEC. If any of these risks are realized, our business, financial condition, results of operations, and prospects could be materially and adversely affected. In that case, the value of our common stock could decline, and stockholders may lose all or part of their investment. Furthermore, additional risks and uncertainties of which we are currently unaware, or which we currently consider to be immaterial, could have a material adverse effect on our business.*

*Certain statements made in this section and our Annual Report constitute “forward-looking statements,” which are subject to numerous risks and uncertainties including those described in this section. Refer to the section entitled “Cautionary Note Regarding Forward-Looking Statements” within this prospectus for additional information.*

### **Risks Related to this Offering and Ownership of Our Securities**

***The market prices and trading volume of our stock may be volatile.***

The market price of our common stock is likely to be highly volatile and the trading volume may fluctuate and cause significant price variation to occur. We cannot assure you that the market prices of our common stock will not fluctuate or decline significantly in the future. Some of the factors that could negatively affect the prices of our shares or result in fluctuations in those prices or in trading volume of our common stock could include the following, many of which will be beyond our control:

- competition;
- comments by securities analysts regarding our business or prospects;
- additions or departures of key personnel;
- our ability to execute our business plan;
- issuance of common stock or other securities;
- operating results that fall below expectations;
- loss of any strategic relationship;
- industry developments;
- economic and other external factors; and
- period-to-period fluctuations in our financial results.

In addition, the securities markets have from time-to-time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price and trading volume of our common stock.

***We have identified material weaknesses in our internal control over financial reporting that have not yet been remediated, and although we are working to address such weaknesses, the failure to address these material weaknesses, or the identification of any others, could impact the reliability of our financial reporting and harm investors’ views of us, which could adversely impact our stock price.***

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. As defined in Exchange Act Rule 13a-15(f), internal control over financial reporting is a process designed by, or under the supervision of, the principal executive and principal financial officer and effected by the board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and dispositions of assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and/or directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

We have determined that we have material weaknesses in our internal control over financial reporting as of December 31, 2024. See Part II, Item 9A of our Annual Report for a complete discussion of these material weaknesses in our internal control over financial reporting and remediation efforts. Although we have taken and continue to take steps to address these material weaknesses, the existence of a material weakness is an indication that there is more than a remote likelihood that a material misstatement of our financial statements will not be prevented or detected in the current or any future period. There can be no assurance that we will be able to fully implement our plans and controls, as further described in *Item 9A*, to address these material weaknesses, or that the plans and controls, if implemented, will be successful in fully remediating these material weaknesses. In addition, we may in the future identify further material weaknesses in our internal control over financial reporting that we have not discovered to date. If we fail to successfully remediate the identified material weaknesses, or we identify further material weaknesses in our internal controls, the market's confidence in our financial statements could decline and the market price of our common stock could be adversely impacted. Additionally, for so long as we remain as a smaller reporting company, under current rules our accounting firm will not be required to provide an opinion regarding our internal controls over financial reporting.

***We have a “going concern” opinion from our auditors, indicating the possibility that we may not be able to continue to operate.***

Our independent registered public accountants have expressed substantial doubt about our ability to continue as a going concern. This opinion could materially limit our ability to raise additional funds by issuing new debt or equity securities or otherwise. If we fail to raise sufficient capital when needed, we will not be able to complete our proposed business plan. As a result, we may have to liquidate our business, and investors may lose their investments. Our ability to continue as a going concern is dependent upon our ability to successfully accomplish our plan of operations described herein, obtain financing and eventually attain profitable operations. Investors should consider our independent registered public accountant's comments when deciding whether to invest in the Company.

***Certain of the Warrants may never be in the money and may expire worthless.***

We believe the likelihood that holders of the Underwriter Warrants, Series A Warrants, Series B Warrants, Placement Agent Warrants, Form A Warrants, Form B Warrants, and Investor Warrants will exercise the warrants, and therefore the amount of cash proceeds that we would receive, is dependent upon the trading price of our common stock, the last reported sales price for which was \$0.5576 per share on April 3, 2025. If the trading price for our common stock is less than the exercise price per share of such warrants, we expect such warrant holders will not exercise their warrants. In addition, the Underwriter Warrants, Pre-Funded Warrants, Series A Warrants, Series B Warrants, and Placement Agent Warrants are exercisable on a cashless basis in certain circumstances, and it is possible we will not receive any proceeds upon the exercise of such warrants. There is no guarantee the Underwriter Warrants, Series A Warrants, Series B Warrants, Placement Agent Warrants, or Investor Warrants will be in the money following the time they become exercisable and prior to their expiration, and such warrants may expire worthless and we would not receive any proceeds from their exercise. In addition, there can be no assurance the Underwriter Warrants, Pre-Funded Warrants, Series A Warrants, Series B Warrants, or Placement Agent Warrants will be exercised for cash, and as such, we may receive no proceeds from the exercise of such warrants.

***If we fail to comply with the NYSE American's continued listing requirements, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.***

Our common stock is listed on the NYSE American. The continued listing of our common stock on the NYSE American is subject to our continued compliance with certain listing requirements, including requirements related to corporate governance, our financial condition and operating results, the trading price of our common stock, number of stockholders and our market capitalization. If we fall out of compliance with the NYSE American's listing standards and fail to regain compliance within the applicable cure periods, our common stock may be delisted from the NYSE American. The delisting of our common stock could materially reduce the liquidity of our common stock and result in a corresponding material reduction in the price of our common stock. In addition, delisting could harm our ability to raise capital on terms acceptable to us, or at all, reduce the amount of analyst coverage of our securities, result in the loss of confidence by investors and employees, and could lead to fewer business development opportunities, any of which could adversely affect our business.

***Our Second Amended and Restated Certificate of Incorporation exculpates our officers and directors from certain liability to our Company and our stockholders.***

Our Second Amended and Restated Certificate of Incorporation contains a provision limiting the liability of our officers and directors for their acts or failures to act, except for acts involving intentional misconduct, fraud or a knowing violation of law. This limitation on liability may reduce the likelihood of derivative litigation against our officers and directors and may discourage or deter our stockholders from suing our officers and directors based upon breaches of their duties to our Company.

***Our corporate governance documents, certain corporate laws applicable to us, and share ownership by executive officers and directors, could make a takeover attempt, which may be beneficial to our stockholders, more difficult.***

Our board of directors has the power, under our charter documents to:

- issue additional shares of common stock without having to obtain stockholder approval for such action;
- fill vacant directorships except for vacancies created by the removal of a director;
- amend our bylaws without stockholder approval subject to certain exceptions; and
- require compliance with an advance notice procedure with regard to business to be brought by a stockholder before an annual or special meeting of stockholders and with regard to the nomination by stockholders of candidates for election as directors.

Further, our executive officers and directors beneficially own an amount of our outstanding shares of common stock such that if they were collectively to oppose a third party's acquisition proposal for, or a change in control of, the Company, such officers and directors may have sufficient voting power to be able to influence whether such an acquisition or change in control takes place, even if other stockholders would support such a sale or change of control.

These provisions and circumstances may discourage potential acquisition proposals and could delay or prevent a change of control, including under circumstances in which our stockholders might otherwise receive a premium over the market price of our common stock.

***We do not expect to pay dividends in the foreseeable future.***

We have never declared or paid cash dividends on our common stock. We do not intend to declare dividends for the foreseeable future, as we anticipate that we will reinvest any future earnings in the development and growth of our business. Therefore, investors will not receive any funds unless they sell their common stock, and stockholders may be unable to sell their shares on favorable terms or at all. We cannot assure you of a positive return on investment or that you will not lose the entire amount of your investment in our common stock.

***We may in the future issue additional shares of our common stock which would reduce investors' ownership interests in the Company, and which may cause our stock price to decline.***

Our Second Amended and Restated Certificate of Incorporation authorizes the issuance of 175,000,000 shares of common stock, par value \$0.001 per share, and there has been submitted a proposal at our 2025 Annual Meeting of Stockholders to approve an amendment to our Second Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock issuable from 175,000,000 to 325,000,000. The future issuance of all or part of our remaining authorized common stock may result in substantial dilution in the percentage of our common stock held by our then existing stockholders. We may value any common stock issued in the future on an arbitrary basis. The issuance of common stock for future services or acquisitions or other corporate actions may have the effect of diluting the percentage ownership of our stockholders and, depending upon the prices at which such shares are sold or issued, on their investment in our common stock and, therefore, could have an adverse effect on any trading market for our common stock.

***Future sales of our common stock could depress the market price of our common stock.***

Sales of a substantial number of shares of our common stock in the public market or the perception that large sales of our shares could occur, could cause the market price of our common stock to decline or limit our future ability to raise capital through an offering of equity securities.

***If equity research analysts do not publish research or reports about our business, or if they do publish such reports but issue unfavorable commentary or downgrade our common stock, the price and trading volume of our common stock could decline.***

The trading market for our common stock could be affected by whether and to what extent equity research analysts publish research or reports about us and our business. If one or more equity analysts cover us and publish research reports about our common stock, the price of our stock could decline rapidly if one or more securities analysts downgrade our stock or if those analysts' issue or offer unfavorable commentary or cease publishing reports about us. If any of these analysts ceases coverage of us, we could lose visibility in the market, which in turn could cause our common stock price or trading volume to decline and our common stock to be less liquid.

***We are a smaller reporting company and a non-accelerated filer and we cannot be certain if the reduced disclosure requirements applicable to our filing status, as well as the exemption from the requirement to provide an auditor's attestation report regarding the effectiveness of our internal controls, will make our common stock less attractive to investors.***

We are a "smaller reporting company," meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and have a public float of less than \$250 million measured as of the last business day of our most recently completed second fiscal quarter. "Smaller reporting companies" are able to provide simplified executive compensation disclosures in their filings and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. We are also a "non-accelerated filer," based on our eligibility as a "smaller reporting company" as well as having annual revenues of less than \$100 million in the most recent fiscal year for which audited financial statements are available. As a "non-accelerated filer," we are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting. Decreased disclosures in our SEC filings due to our status as a "smaller reporting company" and as a "non-accelerated filer" may make it harder for investors to analyze our results of operations and financial prospects and may make our common stock a less attractive investment.

## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement, and the documents incorporated by reference herein and therein, contain “forward-looking statements” within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934 (the “Exchange Act”). These forward-looking statements are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact included in this prospectus supplement, the accompanying base prospectus, or the documents incorporated by reference herein or therein, are forward-looking statements. Such statements are typically characterized by terminology such as “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “forecast,” “goal,” “intend,” “may,” “plan,” “potential,” “seek,” “should,” “strategy,” “will,” and similar expressions.

Forward-looking statements also include the assumptions underlying or relating to such statements. In particular, forward-looking statements contained in this prospectus and that may be included in any accompanying prospectus supplement or incorporated by reference relate to, among other things, our future or assumed financial condition, results of operations, liquidity, business forecasts and plans, research and product development plans, manufacturing plans, strategic plans and objectives, capital needs and financing plans, product launches, regulatory approvals, competitive environment, and the application of accounting guidance. We caution you that the foregoing list may not include all of the forward-looking statements made in this prospectus and in any accompanying prospectus supplement or documents incorporated by reference.

Our forward-looking statements are based on our management’s current assumptions and expectations about future events and trends, which affect or may affect our business, strategy, operations or financial performance. Although we believe that these forward-looking statements are based upon reasonable assumptions, they are subject to numerous known and unknown risks and uncertainties and are made in light of information currently available to us. Our actual financial condition and results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in the section entitled “*Risk Factors*” beginning on page 9 of this prospectus and page 10 of our Annual Report, as well as those described in the other documents we file with the SEC. You should read this prospectus, any accompanying base prospectus, and the documents incorporated by reference herein and therein, completely and with the understanding that our actual future results may be materially different from and worse than what we expect.

Some significant factors that may impact our estimates and forward-looking statements include:

- Our inability to generate significant revenue or achieve profitability;
- Our need to raise additional capital in the future;
- Our expansion of our product development and sales and marketing capabilities could give rise to difficulties in managing our growth;
- Our dependence on third-party distributors;
- Our limited experience with sales and marketing;
- The possibility that we may not be able to continue to operate, as indicated by the “going concern” opinion from our auditors;
- Our ability to successfully develop, manufacture, market, and sell our future products;
- Our ability to timely obtain necessary regulatory clearances or approvals to distribute and market our future products;
- The acceptance by the marketplace of our future products;
- The highly competitive and rapidly changing nature of the diagnostics market;
- Protection of our patents, intellectual property and trade secrets;
- Our reliance on third parties to manufacture and supply our intended products, and such manufacturers’ dependence on third party suppliers;
- The material weaknesses in our internal control over financial reporting that we have identified;
- Pressures related to macroeconomic and geopolitical conditions; and
- Other risks identified elsewhere in this prospectus, as well as in our other filings with the SEC.



Moreover, we operate in an evolving environment. New risk factors and uncertainties emerge from time to time and it is not possible for our management to predict all risk factors and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of our forward-looking statements by these cautionary statements.

Forward-looking statements speak only as of the date they were made, and, except to the extent required by law or the rules of the NYSE American, we undertake no obligation to update or review any forward-looking statement because of new information, future events or other factors. You should, however, review the risks and uncertainties we describe in the reports we will file from time to time with the SEC, after the filing date of this prospectus. For additional information, refer to the section entitled “*Where You Can Find More Information*.”

Forward-looking statements involve risks and uncertainties and are not guarantees of future performance. As a result of such risks and uncertainties, including those described above, the forward-looking statements discussed in this prospectus supplement, the accompanying base prospectus, and the documents incorporated by reference herein and therein might not occur and our future results and our performance may differ materially from those expressed in these forward-looking statements due to, but not limited to, the factors mentioned above. Because of these uncertainties, you should not place undue reliance on these forward-looking statements when making an investment decision.

## USE OF PROCEEDS

We may receive proceeds from the exercise of the Warrants to the extent these warrants are exercised for cash. The Underwriter Warrants, Pre-Funded Warrants, Series A Warrants, Series B Warrants, and Placement Agent Warrants, however, are exercisable on a cashless basis in certain circumstances. If all of the Warrants are exercised for cash in full, the gross proceeds will be approximately \$19.5 million. We currently anticipate that we will use the net proceeds from this Offering for research and continued product development, clinical studies, product commercialization, working capital and other general corporate purposes. Our expected use of the net proceeds from this Offering, if any, is based upon our present plans and business condition. As of the date of this prospectus, we cannot predict whether we will receive any proceeds, or with certainty all of the particular uses for the net proceeds to be received upon the completion of this Offering or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of proceeds will vary depending on numerous factors, including the factors described under the heading “*Risk Factors*” beginning on page 9 of this prospectus and page 10 of our Annual Report, as well as the other documents we file with the SEC. As a result, management will retain broad discretion over the allocation 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.

## **MARKET INFORMATION AND DIVIDEND POLICY**

### **Market Information**

Our common stock began trading on the NYSE American on February 6, 2015 under the symbol “VNRX.” As of April 3, 2025, there were approximately 174 registered holders of our common stock.

### **Dividend Policy**

We have not previously paid cash dividends on our common stock. It is our current intention to invest our cash flow and earnings in the growth of our business and, therefore, we have no plans to pay cash dividends for the foreseeable future. Additionally, our ability to pay dividends is limited by restrictions on our ability to pay dividends and make certain other restricted payments under the terms of our term loan. Investors should not purchase our common stock with the expectation of receiving cash dividends.

**DILUTION**

If you purchase Warrant Shares in this Offering, your ownership interest will be immediately diluted to the extent of the difference between the offering price per share of the Warrant Share and the “as adjusted” net tangible book value per share of our common stock upon the closing of this Offering.

Net tangible book value per share of our common stock is determined by subtracting our total liabilities from the amount of our total tangible assets (total assets less intangible assets) and then dividing the difference by the number of shares of our common stock deemed to be outstanding at that date. As of December 31, 2024, we had a net tangible book value of approximately \$(26.4) million, or \$(0.275) per share of common stock.

After giving effect to the issuance and sale of the Warrant Shares offered in this Offering, and after deducting \$75,000 of offering expenses paid or payable by us, our as adjusted net tangible book value as of December 31, 2024 would have been \$(7.0) million, or \$(0.053) per share of common stock. This represents an immediate increase in net tangible book value per share of \$0.222 to existing stockholders, compared to the as adjusted net tangible book value per share, and immediate dilution of \$0.596 per share to investors purchasing Warrant Shares in this Offering. Dilution per share to investors is determined by subtracting as adjusted net tangible book value per share after this Offering from the offering price per Warrant Share paid by the Warrant holders upon the exercise of the Warrants, if any, in this Offering.

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

Weighted average price per Warrant Share		\$ 0.543
Net tangible book value per share as of December 31, 2024	\$ (0.275)	
Increase in net tangible book value per share attributable to this Offering	\$ 0.222	
As adjusted net tangible book value per share after this Offering	\$ (0.053)	
Dilution per share to new investors purchasing in this Offering		\$ 0.596

Unless otherwise indicated, the number of shares of our common stock to be outstanding immediately after this Offering is based on 96,097,485 shares of our common stock outstanding as of December 31, 2024, plus the 4,102,723 shares of common stock issued in connection with the March 2025 Offering, and excludes, unless otherwise noted, as of December 31, 2024:

- 448,706 shares of our common stock sold through an “at the market” offering subsequent to December 31, 2024, pursuant to the equity distribution agreement entered into with Jefferies LLC;
- 4,637,748 shares of our common stock issuable upon the exercise of options under our 2011 Equity Incentive Plan and 2015 Stock Incentive Plan, with a weighted average exercise price of \$3.88 per share;
- 414,000 shares of our common stock issuable upon the exercise of common stock warrants outstanding, with a weighted average exercise price of \$4.20 per share;
- 448,500 shares of our common stock issuable upon the exercise of the Underwriter Warrants outstanding, with an exercise price of \$2.00 per share;
- 3,557,273 shares of our common stock issuable upon the exercise of the Pre-Funded Warrants outstanding, with an exercise price of \$0.001 per share;
- 25,454,546 shares of our common stock issuable upon the exercise of the Series A Warrants and Series B Warrants outstanding, with a weighted average exercise price of \$0.57 per share;

- 381,818 shares of our common stock issuable upon the exercise of the Placement Agent Warrants outstanding, with an exercise price of \$0.6875 per share;
- 2,857,389 shares of our common stock issuable upon the exercise of the Form A Warrants outstanding, with an exercise price of \$0.5722 per share;
- 1,428,693 shares of our common stock issuable upon the exercise of the Form B Warrants outstanding, with an exercise price of \$0.71525 per share;
- 1,739,087 shares of our common stock issuable upon the exercise of the Investor Warrants outstanding with an exercise price of \$0.66 per share;
- 3,392,316 RSUs outstanding under our 2015 Stock Incentive Plan, with a weighted average price of \$0.80 per share;
- an aggregate of 182,252 shares of common stock reserved for future issuance under our 2015 Stock Incentive Plan;
- 1,000,000 RSUs outstanding under our 2024 Stock Incentive Plan, with a weighted average price of \$0.207 per share; and
- an aggregate of 6,500,000 shares of common stock reserved for future issuance under our 2024 Stock Incentive Plan.

Unless otherwise indicated, all information in this prospectus supplement reflects and assumes the following:

- no additional issuances, expirations or forfeitures of options and warrants after December 31, 2024;
- no exercise of the outstanding options or settlement of outstanding RSUs after December 31, 2024;
- no exercise of the outstanding warrants after December 31, 2024; and
- no exercise of the Warrants.

To the extent outstanding options or warrants are exercised, or RSUs are settled, you may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

## DESCRIPTION OF CAPITAL STOCK

The following is a summary of all material characteristics of our capital stock as set forth in our second amended and restated certificate of incorporation and amended and restated bylaws, each as amended (respectively, our “Certificate of Incorporation” and our “Bylaws”). This summary does not purport to be complete and is qualified in its entirety by reference to our Certificate of Incorporation and Bylaws, copies of which have been filed as exhibits to our SEC filings. For more information, see the section entitled, “*Where You Can Find More Information.*”

### Common Stock

The following is a summary of all material characteristics of our common stock as set forth in our Certificate of Incorporation and Bylaws. This summary does not purport to be complete and is qualified in its entirety by reference to Certificate of Incorporation and Bylaws, copies of which have been filed as exhibits to our SEC filings.

**General.** We may issue shares of our common stock from time to time. We are currently authorized to issue 175,000,000 shares of common stock, par value \$0.001 per share. As of April 3, 2025, there were 100,746,467 shares of our common stock outstanding. Our common stock is listed on the NYSE American and traded under the symbol “VNRX.” On April 3, 2025, the last reported sale price of our common stock on the NYSE American was \$0.5576.

As of April 3, 2025, there were approximately 174 holders of record of our common stock. The actual number of holders of our common stock is greater than the number of record holders, and includes stockholders who are beneficial owners, but whose shares are held in street name by banks, brokers, dealers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

**Holders.** Holders of shares of our common stock are entitled to one vote per share held of record on all matters submitted to a vote of stockholders, including the election of directors. The holders are entitled to receive dividends when, as and if declared by our board of directors, in its discretion, out of funds legally available therefor. In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to share ratably in all of our assets remaining after payment of liabilities. The holders of our common stock have no preemptive or other subscription rights, and there are no conversion rights or redemption or sinking fund provisions with respect to such shares. All of the outstanding shares of our common stock are, and the shares of our common stock when issued will be, fully paid and non-assessable.

### Underwriter Warrants

The following summary of certain terms and provision of the Underwriter Warrants is not complete and is subject to, and qualified in its entirety by, the provisions of the Underwriter Warrants. Prospective investors should carefully review the terms and provisions of the form of Underwriter Warrants for a complete description of the terms and conditions of the Underwriter Warrants. For additional information, refer to the section entitled “*Where You Can Find More Information.*”

**Duration, Exercise Price and Form.** The Underwriter Warrants have an exercise price of \$2.00 per share. 390,000 of the Underwriter Warrants are exercisable beginning December 4, 2023, and expire June 5, 2028, and 58,500 of the Underwriter Warrants are exercisable beginning December 20, 2023, and expire June 23, 2028. The exercise price and number of shares of common stock issuable upon exercise are subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our shares of common stock. The Underwriter Warrants will be issued in certificated form only. The Underwriter Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

**Exercise Limitation.** A holder will not have the right to exercise any portion of the Underwriter Warrants if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or at the election of the holder, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of the Underwriter Warrant, as such percentage ownership is determined in accordance with the terms of the Underwriter Warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us. It is the responsibility of the holder to determine whether any exercise would exceed the exercise limitation.

**Cashless Exercise.** If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the underlying shares to the holder, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Underwriter Warrants. To the extent not previously exercised, and if on the Termination Date there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Underwriter Warrant Shares to the holder, then the Underwriter Warrants are automatically exercised via cashless exercise on the Termination Date (as defined in the Underwriter Warrants).

**Fundamental Transactions.** In the event of a fundamental transaction, as described in the Underwriter Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets in one transaction or a series of transactions, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of more than 50% of the voting power represented by our outstanding common stock, the holders of the Underwriter Warrants will be entitled to receive upon exercise of the Underwriter Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Underwriter Warrants immediately prior to such fundamental transaction. In addition, in certain circumstances, upon a fundamental transaction, the holder of the Underwriter Warrants will have the right to require us to repurchase its Underwriter Warrants at the Black-Scholes value (as defined in the Underwriter Warrants); provided, however, that, if the fundamental transaction is not within our control, including not approved by our Board, then the holder will only be entitled to receive the same type or form of consideration (and in the same proportion), at the Black-Scholes value of the unexercised portion of the Underwriter Warrants that is being offered and paid to the holders of our common stock in connection with the fundamental transaction.

**Transferability.** Subject to applicable laws, Underwriter Warrant may be transferred at the option of the holder upon surrender of the Underwriter Warrants to us together with the appropriate instruments of transfer. Notwithstanding the foregoing, for a period 180 days after the commencement of sales of the offering pursuant to which the Underwriter Warrants were issued, neither the Underwriter Warrant nor any Warrant Shares issued upon exercise shall be transferred subject to the exceptions set forth in the Underwriter Warrant.

**Piggy-Back Registration.** Pursuant to the Underwriter Warrants, the holder of the Underwriter Warrants (the “Underwriter Warrant Holder”) is entitled to certain “piggy-back” registration rights where, if at any time while the Underwriter Warrants are outstanding, there is not an effective registration statement covering all of the Underwriter Warrant Shares and we determine to prepare and file with the SEC a registration statement relating to an offering for our own account or the account of others under the Securities Act of any of our equity securities (subject to certain exceptions), the Underwriter Warrant Holder can require us to register its Underwriter Warrant Shares, provided we shall not be required to register any Underwriter Warrant Shares that are eligible for resale pursuant to Rule 144 and certain other exceptions set forth in the Underwriter Warrants.

**Demand Registration.** Pursuant to the Underwriter Warrants, the Underwriter Warrant Holder is entitled to certain “demand” registration rights where, if there is not an effective registration statement covering all of the Underwriter Warrant Shares, then from December 5, 2023 through June 5, 2028, the Underwriter Warrant Holder is entitled to one “demand” registration right at our expense and one “demand” registration right at the Underwriter Warrant Holder’s expense, pursuant to which the Underwriter Warrant Holder can require us to register its Underwriter Warrant Shares.

**No Fractional Shares.** No fractional shares of common stock will be issued upon the exercise of Underwriter Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

**Trading Market and Listing.** There is no established trading market for the Underwriter Warrants, and we do not expect a market to develop. We do not intend to apply for a listing of the Underwriter Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Underwriter Warrants will be limited. The common stock issuable upon exercise of the Underwriter Warrants is currently listed on the NYSE American.

**Rights as a Stockholder.** Except as otherwise provided in the Underwriter Warrants or by virtue of the holders' ownership of shares of common stock, the holders of the Underwriter Warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until such Underwriter Warrant holders exercise their Underwriter Warrants.

**Waivers and Amendments.** The Underwriter Warrants may be modified or amended, or the provisions thereof waived with the written consent of the Company and the respective holder.

#### **Pre-Funded Warrants**

The following summary of certain terms and provisions of the Pre-Funded Warrants is not complete and is subject to, and qualified in its entirety by, the provisions of the Pre-Funded Warrants. Prospective investors should carefully review the terms and provisions of the form of Pre-Funded Warrants for a complete description of the terms and conditions of the Pre-Funded Warrants. For additional information, refer to the section entitled "*Where You Can Find More Information.*"

**Duration, Exercise Price and Form.** The Pre-Funded Warrants offered hereby have an exercise price of \$0.001 per share. The Pre-Funded Warrants were immediately exercisable and may be exercised at any time after their original issuance until such Pre-Funded Warrants are exercised in full. The exercise price and number of shares of common stock issuable upon exercise are subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our shares of common stock. The Pre-Funded Warrants, the Series A Warrants and the Series B Warrants were issued separately in this offering but must be purchased together. The Pre-Funded Warrants were issued in certificated form only. The Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

**Exercise Limitation.** A holder will not have the right to exercise any portion of the Pre-Funded Warrants if the holder (together with its affiliates) would beneficially own in excess of 4.99%, or at the election of the holder, 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of the Pre-Funded Warrant, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us. It is the responsibility of the holder to determine whether any exercise would exceed the exercise limitation.

**Cashless Exercise.** At the time a holder exercises its Pre-Funded Warrants, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Pre-Funded Warrants.

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

**Transferability.** Subject to applicable laws, a Pre-Funded Warrant may be transferred at the option of the holder upon surrender of the Pre-Funded Warrant to us together with the appropriate instruments of transfer.



**No Fractional Shares.** No fractional shares of common stock will be issued upon the exercise of the Pre-Funded Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

**Trading Market.** There is no established trading market for the Pre-Funded Warrants, and we do not expect a market to develop. We do not intend to apply for a listing of the Pre-Funded Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Pre-Funded Warrants will be limited. The common stock issuable upon exercise of the Pre-Funded Warrants is currently listed on the NYSE American.

**Rights as a Stockholder.** Except as otherwise provided in the Pre-Funded Warrants or by virtue of the holders' ownership of shares of common stock, the holders of Pre-Funded Warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until such Pre-Funded Warrant holders exercise their Pre-Funded Warrants.

**Waivers and Amendments.** The Pre-Funded Warrants may be modified or amended, or the provisions thereof waived with the written consent of the Company and the respective holder.

#### **Series A Warrants**

The following summary of certain terms and provisions of the Series A Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series A Warrants. Prospective investors should carefully review the terms and provisions of the form of Series A Warrants for a complete description of the terms and conditions of the Series A Warrants. For additional information, refer to the section entitled "Where You Can Find More Information."

**Duration, Exercise Price and Form** Each Series A Warrant offered hereby has an exercise price equal to \$0.57 per share and is exercisable on or after the Initial Exercise Date. The Series A Warrants are exercisable until the earlier of (a) the two (2) year anniversary of the Initial Exercise Date and (b) the date that is 60 days following the Series A Milestone Announcement of the occurrence of us entering into one or more agreements relating to the development and commercialization of a product, technology, or process in the human space, provided at least one such agreement covers a territory that includes all or a part of the European Union, the United States, the United Kingdom, Japan, or China, and which, during the term of all such agreements and pursuant to the terms thereof, collectively such agreements include aggregate (i) potential milestone payments to the Company of at least \$10.0 million, or (ii) potential milestone payments to the Company of at least \$5.0 million and potential total payments of at least \$20.0 million (provided, however, that if we file a Form 8-K with the SEC to publicly disclose the Series A Milestone Event during the six months following August 12, 2024, the term shall automatically be extended until the date that is sixty days following the Initial Exercise Date). The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series A Warrants were issued separately from the common stock, the Pre-Funded Warrants and the Series B Warrants, as the case may be. The Series A Warrants were issued in certificated form only. The Series A Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

**Exercise Limitation.** A holder will not have the right to exercise any portion of the Series A Warrants if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or at the election of the holder, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of the Series A Warrant, as such percentage ownership is determined in accordance with the terms of the Series A Warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us. It is the responsibility of the holder to determine whether any exercise would exceed the exercise limitation.

**Cashless Exercise.** If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the underlying shares to the holder, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series A Warrants. To the extent not previously exercised, the Series A Warrants are automatically exercised via cashless exercise on the Termination Date (as defined in the Series A Warrants).

**Fundamental Transactions.** In the event of a fundamental transaction, as described in the Series A Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets and all or substantially all of our revenues in one transaction or a series of transactions, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of more than 50% of the voting power represented by our outstanding common stock, the holders of the Series A Warrants will be entitled to receive upon exercise of the Series A Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series A Warrants immediately prior to such fundamental transaction. In addition, in certain circumstances, upon a fundamental transaction, the holder of the Series A Warrants will have the right to require us to repurchase its Series A Warrants at the Black-Scholes value (as defined in the Series A Warrants); provided, however, that, if the fundamental transaction is not within our control, including not approved by our Board, then the holder will only be entitled to receive the same type or form of consideration (and in the same proportion), at the Black-Scholes value of the unexercised portion of the Series A Warrants that is being offered and paid to the holders of our common stock in connection with the fundamental transaction.

**Transferability.** Subject to applicable laws, a Series A Warrant may be transferred at the option of the holder upon surrender of the Warrant to us together with the appropriate instruments of transfer.

**No Fractional Shares.** No fractional shares of common stock will be issued upon the exercise of Series A Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

**Trading Market and Listing.** There is no established trading market for the Series A Warrants, and we do not expect a market to develop. We do not intend to apply for a listing of the Series A Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Series A Warrants will be limited. The common stock issuable upon exercise of the Series A Warrants is currently listed on the NYSE American.

**Rights as a Stockholder.** Except as otherwise provided in the Series A Warrants or by virtue of the holders' ownership of shares of common stock, the holders of the Series A Warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until such Series A Warrant holders exercise their Series A Warrants.

**Waivers and Amendments.** The Series A Warrants may be modified or amended, or the provisions thereof waived with the written consent of the Company and the respective holder.

## **Series B Warrants**

The following summary of certain terms and provisions of the Series B Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series B Warrants. Prospective investors should carefully review the terms and provisions of the form of Series B Warrants for a complete description of the terms and conditions of the Series B Warrants. For additional information, refer to the section entitled "Where You Can Find More Information."

**Duration, Exercise Price and Form** Each Series B Warrant offered hereby has an exercise price equal to \$0.57 per share and is exercisable on or after the Initial Exercise Date. The Series B Warrants are exercisable until the earlier of (a) the five (5) year anniversary of the Initial Exercise Date and (b) the date that is six months following the Series B Milestone Announcement of the occurrence of us or a third party receiving the first FDA approval of a product, technology, or process in the human space utilizing the Company's intellectual property, provided, however, that the FDA's approval of a protocol for a clinical trial of a product, technology, or process in the human space, or the FDA's acceptance of data from invitro trials or in vivo animal trials, shall not constitute "FDA approval" for purposes of this definition. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Series B Warrants were issued separately from the common stock, the Pre-Funded Warrants and the Series A Warrants, as the case may be. The Series B Warrants were issued in certificated form only. The Series B Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

**Exercise Limitation.** A holder will not have the right to exercise any portion of the Series B Warrants if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, at the election of the holder, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of the Series B Warrant, as such percentage ownership is determined in accordance with the terms of the Series B Warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us. It is the responsibility of the holder to determine whether any exercise would exceed the exercise limitation.

**Cashless Exercise.** If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the underlying shares to the holder, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Series B Warrants. To the extent not previously exercised, the Series B Warrants are automatically exercised via cashless exercise on the Termination Date (as defined in the Series B Warrants).

**Fundamental Transactions.** In the event of a fundamental transaction, as described in the Series B Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets and all or substantially all of our revenues in one transaction or a series of transactions, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of more than 50% of the voting power represented by our outstanding common stock, the holders of the Series B Warrants will be entitled to receive upon exercise of the Series B Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series B Warrants immediately prior to such fundamental transaction. In addition, in certain circumstances, upon a fundamental transaction, the holder of the Series B Warrants will have the right to require us to repurchase its Series B Warrants at the Black-Scholes value (as defined in the Series B Warrants); provided, however, that, if the fundamental transaction is not within our control, including not approved by our Board, then the holder will only be entitled to receive the same type or form of consideration (and in the same proportion), at the Black-Scholes value of the unexercised portion of the Series B Warrants that is being offered and paid to the holders of our common stock in connection with the fundamental transaction.

**Transferability.** Subject to applicable laws, a Series B Warrant may be transferred at the option of the holder upon surrender of the Series B Warrant to us together with the appropriate instruments of transfer.

**No Fractional Shares.** No fractional shares of common stock will be issued upon the exercise of Series B Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

**Trading Market and Listing.** There is no established trading market for the Series B Warrants, and we do not expect a market to develop. We do not intend to apply for a listing of the Series B Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Series B Warrants will be limited. The common stock issuable upon exercise of the Series B Warrants is currently listed on the NYSE American.

**Rights as a Stockholder.** Except as otherwise provided in the Series B Warrants or by virtue of the holders' ownership of shares of common stock, the holders of the Series B Warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until such Series B Warrant holders exercise their Series B Warrants.

**Waivers and Amendments.** The Series B Warrants may be modified or amended, or the provisions thereof waived with the written consent of the Company and the respective holder.

#### **Placement Agent Warrants**

The following summary of certain terms and provisions of the Placement Agent Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Placement Agent Warrants. Prospective investors should carefully review the terms and provisions of the form of Placement Agent Warrants for a complete description of the terms and conditions of the Placement Agent Warrants. For additional information, refer to the section entitled "Where You Can Find More Information."

**Duration, Exercise Price and Form** Each Placement Agent Warrant offered hereby has an exercise price equal to \$0.6875 per share and is exercisable on or after the Initial Exercise Date. The Placement Agent Warrants are exercisable until the earlier of (a) August 8, 2029 and (b) the date that is six months following the Series B Milestone Announcement of the occurrence of us or a third party receiving the first FDA approval of a product, technology, or process in the human space utilizing the Company's intellectual property, provided, however, that the FDA's approval of a protocol for a clinical trial of a product, technology, or process in the human space, or the FDA's acceptance of data from invitro trials or in vivo animal trials, shall not constitute "FDA approval" for purposes of this definition. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Placement Agent Warrants were issued separately from the common stock, the Pre-Funded Warrants and the Series A Warrants, as the case may be. The Placement Agent Warrants were issued in certificated form only. The Placement Agent Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

**Exercise Limitation.** A holder will not have the right to exercise any portion of the Placement Agent Warrants if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, at the election of the holder, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon exercise of the Placement Agent Warrant, as such percentage ownership is determined in accordance with the terms of the Placement Agent Warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us. It is the responsibility of the holder to determine whether any exercise would exceed the exercise limitation.

**Cashless Exercise.** If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the underlying shares to the holder, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Placement Agent Warrants. To the extent not previously exercised, the Placement Agent Warrants are automatically exercised via cashless exercise on the Termination Date (as defined in the Placement Agent Warrants).

**Fundamental Transactions.** In the event of a fundamental transaction, as described in the Placement Agent Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets and all or substantially all of our revenues in one transaction or a series of transactions, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of more than 50% of the voting power represented by our outstanding common stock, the holders of the Placement Agent Warrants will be entitled to receive upon exercise of the Placement Agent Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Placement Agent Warrants immediately prior to such fundamental transaction. In addition, in certain circumstances, upon a fundamental transaction, the holder of the Placement Agent Warrants will have the right to require us to repurchase its Placement Agent Warrants at the Black-Scholes value (as defined in the Placement Agent Warrants); provided, however, that, if the fundamental transaction is not within our control, including not approved by our Board, then the holder will only be entitled to receive the same type or form of consideration (and in the same proportion), at the Black-Scholes value of the unexercised portion of the Placement Agent Warrants that is being offered and paid to the holders of our common stock in connection with the fundamental transaction.

**Transferability.** Subject to applicable laws, a Placement Agent Warrant may be transferred at the option of the holder upon surrender of the Placement Agent Warrant to us together with the appropriate instruments of transfer.

**No Fractional Shares.** No fractional shares of common stock will be issued upon the exercise of Placement Agent Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

**Trading Market and Listing.** There is no established trading market for the Placement Agent Warrants, and we do not expect a market to develop. We do not intend to apply for a listing of the Placement Agent Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Placement Agent Warrants will be limited. The common stock issuable upon exercise of the Placement Agent Warrants is currently listed on the NYSE American.

**Rights as a Stockholder.** Except as otherwise provided in the Placement Agent Warrants or by virtue of the holders' ownership of shares of common stock, the holders of the Placement Agent Warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until such Placement Agent Warrant holders exercise their Placement Agent Warrants.

**Waivers and Amendments.** The Placement Agent Warrants may be modified or amended, or the provisions thereof waived with the written consent of the Company and the respective holder.

## Form A Warrants

The following summary of certain terms and provisions of the Form A Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Form A Warrants. Investors should carefully review the terms and provisions of the form of Form A Warrants for a complete description of the terms and conditions of the Form A Warrants. For additional information, refer to the section entitled “*Where You Can Find More Information.*”

**Duration, Exercise Price and Form.** Each Form A Warrant offered hereby has an exercise price equal to the per share offering price, or \$0.5722 per share, and is exercisable on or after the Initial Exercise Date through and until the Termination Date. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Form A Warrants were issued separately from the Shares and the Form B Warrants. The Form A Warrants were issued in certificated form only. The Form A Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise.

**Corporate Transactions.** In the event of a corporate transaction, as described in the Form A Warrants and generally including instances in which shares of our common stock are changed into or exchanged for a different number or different kind of shares or other securities, the holders of the Form A Warrants will be entitled to receive upon exercise of the Form A Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Form A Warrants immediately prior to such corporate transaction, provided, however, that there will be substituted for each of the shares the number and kind of or other securities for which each share of common stock was exchanged or into which each share was changed.

**Transferability.** Subject to applicable laws, a Form A Warrant may be transferred at the option of the holder upon surrender of the Form A Warrant to us together with the appropriate instruments of transfer.

**No Fractional Shares.** No fractional shares of common stock will be issued upon the exercise of Form A Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

**Trading Market and Listing.** There is no established trading market for the Form A Warrants, and we do not expect a market to develop. We do not intend to apply for a listing of the Form A Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Form A Warrants will be limited. The common stock issuable upon exercise of the Form A Warrants is currently listed on the NYSE American.

**Rights as a Stockholder.** Except as otherwise provided in the Form A Warrants or by virtue of the holders’ ownership of shares of common stock, the holders of the Form A Warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until such Form A Warrant holders exercise their Form A Warrants.

**Waivers and Amendments.** The Form A Warrants may be modified or amended, or the provisions thereof waived with the written consent of the Company and the respective holder.

## Form B Warrants

The following summary of certain terms and provisions of the Form B Purchase Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Form B Purchase Warrants. Prospective investors should carefully review the terms and provisions of the form of Form B Purchase Warrants for a complete description of the terms and conditions of the Form B Warrants. For additional information, refer to the section entitled “*Where You Can Find More Information.*”

**Duration, Exercise Price and Form.** Each Form B Warrant offered hereby has an exercise price equal to 125% of the per share offering price, or \$0.71525 per share, and is exercisable on or after the Initial Exercise Date. The Form B Warrants are exercisable until the Termination Date. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Form B Warrants were issued separately from the common stock and the Form A Warrants, as the case may be. The Form B Warrants were issued in certificated form only. The Form B Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise.

**Corporate Transactions.** In the event of a corporate transaction, as described in the Form B Warrants and generally including instances in which shares of our common stock are changed into or exchanged for a different number or different kind of shares or other securities, the holders of the Form B Warrants will be entitled to receive upon exercise of the Form B Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Form B Warrants immediately prior to such corporate transaction, provided, however, that there shall be substituted for each of the shares the number and kind of or other securities for which each share of common stock was exchanged or into which each share was changed.

**Transferability.** Subject to applicable laws, a Form B Warrant may be transferred at the option of the holder upon surrender of the Form B Warrant to us together with the appropriate instruments of transfer.

**No Fractional Shares.** No fractional shares of common stock will be issued upon the exercise of Form B Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

**Trading Market and Listing.** There is no established trading market for the Form B Warrants, and we do not expect a market to develop. We do not intend to apply for a listing of the Form B Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Form B Warrants will be limited. The common stock issuable upon exercise of the Form B Warrants is currently listed on the NYSE American.

**Rights as a Stockholder.** Except as otherwise provided in the Form B Warrants or by virtue of the holders' ownership of shares of common stock, the holders of the Form B Warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until such Form B Warrant holders exercise their Form B Warrants.

**Waivers and Amendments.** The Form B Warrants may be modified or amended, or the provisions thereof waived with the written consent of the Company and the respective holder.

## **Investor Warrants**

The following summary of certain terms and provisions of the Investor Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Investor Warrants. Investors should carefully review the terms and provisions of the form of Investor Warrants for a complete description of the terms and conditions of the Investor Warrants. For additional information, refer to the section entitled "*Where You Can Find More Information.*"

**Duration, Exercise Price and Form.** Each Investor Warrant offered hereby has an exercise price equal to the per share offering price, or \$0.66 per share, and is exercisable on or after March 26, 2025 through and until March 26, 2030. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. The Investor Warrants were issued separately from the Shares. The Investor Warrants were issued in certificated form only. The Investor Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise.

**Corporate Transactions.** In the event of a corporate transaction, as described in the Investor Warrants and generally including instances in which shares of our common stock are changed into or exchanged for a different number or different kind of shares or other securities, the holders of the Investor Warrants are entitled to receive upon exercise of the Investor Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Investor Warrants immediately prior to such corporate transaction, provided, however, that there will be substituted for each of the shares the number and kind of or other securities for which each share of common stock was exchanged or into which each share was changed.

**Transferability.** Subject to applicable laws, an Investor Warrant may be transferred at the option of the holder upon surrender of the Investor Warrant to us together with the appropriate instruments of transfer.

**No Fractional Shares.** No fractional shares of common stock will be issued upon the exercise of Investor Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

**Trading Market and Listing.** There is no established trading market for the Investor Warrants, and we do not expect a market to develop. We do not intend to apply for a listing of the Investor Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Investor Warrants will be limited. The common stock issuable upon exercise of the Investor Warrants is currently listed on the NYSE American.

**Rights as a Stockholder.** Except as otherwise provided in the Investor Warrants or by virtue of the holders' ownership of shares of common stock, the holders of the Investor Warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until such Investor Warrant holders exercise their Investor Warrants.

**Waivers and Amendments.** The Investor Warrants may be modified or amended, or the provisions thereof waived with the written consent of the Company and the respective holder.

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

Certain provisions of Delaware law, our Certificate of Incorporation and our Bylaws could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging such proposals, including proposals that are priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could result in an improvement of their terms.



**Certificate of Incorporation and Bylaws.** Our Certificate of Incorporation and Bylaws include provisions that:

- require that any action to be taken by our stockholders be effected at a duly-called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by the board of directors, the chairman of the board, or the chief executive officer (or the president if there is no chief executive officer);
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to the board of directors;
- provide that the number of directors on our board of directors is fixed exclusively by our board of directors;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- establish the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain derivative actions or proceedings brought on our behalf, any action asserting a claim of breach of fiduciary duty, any action asserting a claim against us arising pursuant to the General Corporation Law of the State of Delaware (the “DGCL”), or any action asserting a claim governed by the internal affairs doctrine; and
- provide that there is no right to cumulate votes with respect to any shares of capital stock.

**Delaware Anti-Takeover Statute.** We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned by (1) persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time the business combination or transaction is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3 % of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a “business combination” includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the “interested stockholder” and an “interested stockholder” is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation’s outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may discourage business combinations or other attempts that might result in a premium over the market price for the shares of common stock held by our stockholders. The provisions of DGCL, our Certificate of Incorporation and our Bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

## **PLAN OF DISTRIBUTION**

We may issue the Warrant Shares from time to time upon the exercise of the Warrants, if any. We may receive proceeds from the exercise of the Warrants to the extent they are exercised for cash.

### **Expenses and Net Proceeds**

We estimate the total expenses of this offering paid or payable by us will be approximately \$75,000. After deducting our estimated expenses in connection with this offering, we expect the net proceeds from this offering will be approximately \$19.4 million.

### **Listing and Transfer Agent**

Our common stock is listed on the NYSE American and trades under the symbol “VNRX.” The transfer agent of our common stock is VStock Transfer, LLC. The address of VStock Transfer, LLC is 18 Lafayette Place, Woodmere, New York 11598, and the telephone number is (212) 828-8436. There is no established public trading market for the Warrants, and we do not plan on making an application to list the Warrants on the NYSE American, any national securities exchange or other nationally recognized trading system. We will act as the registrar and transfer agent for the Warrants.



## MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

The following discussion describes the material U.S. federal income tax consequences of the acquisition, ownership and disposition of the Warrant Shares acquired in this Offering. This discussion is based on the current provisions of the Internal Revenue Code of 1986, as amended (the “Code”), existing and proposed U.S. Treasury regulations promulgated thereunder, and administrative rulings and court decisions in effect as of the date hereof, all of which are subject to change at any time, possibly with retroactive effect. No ruling has been or will be sought from the Internal Revenue Service (the “IRS”) with respect to the matters discussed below, and there can be no assurance the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of the Warrant Shares, or that any such contrary position would not be sustained by a court. Except as provided herein, this summary does not discuss the potential effects, whether adverse or beneficial, of any proposed legislation that, if enacted, could be applied on a retroactive or prospective basis.

We assume in this discussion that the Warrant Shares will be held as capital assets (generally, property held for investment). This discussion does not address all aspects of U.S. federal income taxes, does not discuss the potential application of the Medicare contribution tax or the alternative minimum tax and does not address state or local taxes or U.S. federal gift and estate tax laws, except as specifically provided below with respect to Non-U.S. Holders (as defined below), or any non-U.S. tax consequences that may be relevant to holders in light of their particular circumstances. In addition, except as specifically set forth below, this summary does not discuss applicable tax reporting requirements. This discussion also does not address the special tax rules applicable to particular holders, such as:

- persons who acquired the Warrant Shares as compensation for services;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than 5% of our common stock (except to the extent specifically set forth below);
- persons required for U.S. federal income tax purposes to conform the timing of income accruals to their financial statements under Section 451(b) of the Code (except to the extent specifically set forth below);
- persons for whom our common stock constitutes “qualified small business stock” within the meaning of Section 1202 of the Code or “Section 1244 stock” for purposes of Section 1244 of the Code;
- persons deemed to sell the Warrant Shares under the constructive sale provisions of the Code;
- banks or other financial institutions;
- brokers or dealers in securities or currencies;
- tax-exempt organizations or tax-qualified retirement plans;
- S corporations (and stockholders thereof);
- partnerships or other entities treated as partnerships for U.S. federal income tax purposes (and partners or other owners thereof);
- corporations organized outside the United States, any state thereof, or the District of Columbia that are nonetheless treated as U.S. persons for U.S. federal income tax purposes;
- pension plans;

- regulated investment companies or real estate investment trusts;
- persons that hold the Warrant Shares as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment;
- insurance companies;
- controlled foreign corporations, passive foreign investment companies, or corporations that accumulate earnings to avoid U.S. federal income tax;
- U.S. Holders that are subject to taxing jurisdictions other than, or in addition to, the United States with respect to the Warrant Shares; and
- certain U.S. expatriates, former citizens, or long-term residents of the United States.

In addition, this discussion does not address the tax treatment of partnerships (including any entity or arrangement classified as a partnership for U.S. federal income tax purposes) or other pass-through entities or persons who hold shares of common stock through such partnerships or other entities which are pass-through entities for U.S. federal income tax purposes. If such a partnership or other pass-through entity holds shares of common stock, the treatment of a partner in such partnership or investor in such other pass-through entity generally will depend on the status of the partner or investor and upon the activities of the partnership or other pass-through entity. A partner in such a partnership and an investor in such other pass-through entity that will hold Warrant Shares should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of Warrant Shares through such partnership or other pass-through entity, as applicable.

**This discussion of U.S. federal income tax considerations is for general information purposes only and is not tax advice. Prospective investors should consult their own tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of acquiring, holding and disposing of our common stock.**

For the purposes of this discussion, a “U.S. Holder” means a beneficial owner of Warrant Shares acquired pursuant to an offering that is for U.S. federal income tax purposes (a) an individual citizen or resident of the United States, (b) a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes), created or organized in or under the laws of the United States, any state thereof or the District of Columbia, (c) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (d) a trust if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons (within the meaning of Section 7701(a)(30) of the Code) has the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a domestic trust. A “Non-U.S. Holder” is, for U.S. federal income tax purposes, a beneficial owner of Warrant Shares that is not a U.S. Holder or a partnership for U.S. federal income tax purposes.

#### **Tax Considerations Applicable to U.S. Holders**

##### ***Distributions***

In the event that we make distributions on our common stock to a U.S. Holder, those distributions generally will constitute dividends for U.S. tax purposes to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital that is applied against and reduces, but not below zero, a U.S. Holder’s adjusted tax basis in our common stock. Any remaining excess will be treated as gain realized on the sale or exchange of shares of common stock as described below under the section titled “*Disposition of Warrant Shares.*”

### ***Certain Adjustments to Warrants***

The number of Warrant Shares issued upon the exercise of the Warrants and the exercise price of the Warrants are subject to adjustment in certain circumstances. Adjustments (or failure to make adjustments) that have the effect of increasing a U.S. Holder's proportionate interest in our assets or earnings and profits may, in some circumstances, result in a constructive distribution to the U.S. Holder.

### ***Disposition of Warrant Shares***

Upon a sale or other taxable disposition (other than a redemption treated as a distribution, which will be taxed as described above under the section titled "*Distributions*") of Warrant Shares, a U.S. Holder generally will recognize capital gain or loss in an amount equal to the difference between the amount realized and the U.S. Holder's adjusted tax basis in the Warrant Shares sold. Capital gain or loss will constitute long-term capital gain or loss if the U.S. Holder's holding period for the Warrant Shares exceeds one year. The deductibility of capital losses is subject to certain limitations. U.S. Holders who recognize losses with respect to a disposition of Warrant Shares should consult their own tax advisors regarding the tax treatment of such losses.

### ***Information Reporting and Backup Reporting***

Information reporting requirements generally will apply to payments of distributions (including constructive distributions) on the Warrant Shares and to the proceeds of a sale or other disposition of Warrant Shares paid by us to a U.S. Holder unless such U.S. Holder is an exempt recipient, such as a corporation. Backup withholding will apply to those payments if the U.S. Holder fails to provide the holder's taxpayer identification number, or certification of exempt status, or if the holder otherwise fails to comply with applicable requirements to establish an exemption.

Backup withholding is not an additional tax. Rather, any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against the U.S. Holder's U.S. federal income tax liability provided the required information is timely furnished to the IRS. U.S. Holders should consult their own tax advisors regarding their qualification for exemption from information reporting and backup withholding and the procedure for obtaining such exemption.

### **Tax Considerations Applicable to Non-U.S. Holders**

#### ***Certain Adjustments to Warrants***

As described above under the section titled "*Tax Considerations Applicable to U.S. Holders—Certain Adjustments Warrants*," an adjustment to the Warrants could result in a constructive distribution to a Non-U.S. Holder, which would be treated as described below under the section titled "*Distributions*." Any resulting withholding tax attributable to deemed dividends would be collected from other amounts payable or distributable to the Non-U.S. Holder. Non-U.S. Holders should consult their own tax advisors regarding the proper treatment of any adjustments to the Warrants.

#### ***Distributions***

In the event we make distributions on our common stock to a Non-U.S. Holder, those distributions generally will constitute dividends for U.S. federal income tax purposes as described above under the section titled "*U.S. Holders—Distributions*." To the extent those distributions do not constitute dividends for U.S. federal income tax purposes (*i.e.*, the amount of such distributions exceeds both our current and our accumulated earnings and profits), they will constitute a return of capital and will first reduce a Non-U.S. Holder's basis in our common stock (determined separately with respect to each share of common stock), but not below zero, and then will be treated as gain from the sale of that share common stock as described below under the section titled "*Disposition of Warrant Shares*."

Any distribution (including constructive distributions) on shares of common stock that is treated as a dividend paid to a Non-U.S. Holder that is not effectively connected with the holder's conduct of a trade or business in the United States will generally be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and the Non-U.S. Holder's country of residence. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide the applicable withholding agent with a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate form, certifying the Non-U.S. Holder's entitlement to benefits under that treaty. Such form must be provided prior to the payment of dividends and must be updated periodically. 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 may then be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. If you are eligible for a reduced rate of U.S. withholding tax under an income tax treaty, you should consult with your own tax advisor to determine if you are able to obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

We generally are not required to withhold tax on dividends paid (or constructive dividends deemed paid) to a Non-U.S. Holder that are effectively connected with the holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base that the holder maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to us (or, if stock is held through a financial institution or other agent, to the applicable withholding agent). In general, such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular tax rates applicable to U.S. persons. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate Non-U.S. Holder's effectively connected earnings and profits, subject to certain adjustments.

See also the sections below titled "*Backup Withholding and Information Reporting*" and "*Foreign Accounts*" for additional withholding rules that may apply to dividends paid to certain foreign financial institutions or non-financial foreign entities.

#### ***Disposition of Warrant Shares***

Subject to the discussions below under the sections titled "*Backup Withholding and Information Reporting*" and "*Foreign Accounts*," a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax with respect to gain recognized on a sale or other disposition (other than a redemption treated as a distribution, which will be taxable as described above under the section titled "*Distributions*") of Warrant Shares unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States, and if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States; in these cases, the Non-U.S. Holder will be taxed on a net income basis at the regular tax rates and in the manner applicable to U.S. persons, and if the Non-U.S. Holder is a corporation, an additional branch profits tax at a rate of 30%, or a lower rate as may be specified by an applicable income tax treaty, may also apply;
- the Non-U.S. Holder is a nonresident alien present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements are met, in which case the Non-U.S. Holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S.-source capital losses of the Non-U.S. Holder, if any; or
- we are, or have been, at any time during the five-year period preceding such sale or other taxable disposition (or the Non-U.S. Holder's holding period, if shorter) a "U.S. real property holding corporation," unless our common stock is regularly traded on an established securities market and the Non-U.S. Holder holds no more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the five-year period ending on the date of the disposition or the period that the Non-U.S. Holder held our common stock. 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 its other assets used or held for use in a trade or business. Although there can be no assurance, 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. No assurance can be provided that the common stock will be regularly traded on an established securities market for purposes of the rules described above."

See the sections below titled "*Backup Withholding and Information Reporting*" and "*Foreign Accounts*" for additional information regarding withholding rules that may apply to proceeds of a disposition of the Warrant Shares paid to foreign financial institutions or non-financial foreign entities.

### ***Backup Withholding and Information Reporting***

We must report annually to the IRS and to each Non-U.S. Holder the gross amount of the distributions (including constructive distributions) on the Warrant Shares paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. Holders may have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate, currently 24%, with respect to dividends (or constructive dividends) on the Warrant Shares. Generally, a holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN (or other applicable IRS Form W-8) or otherwise meets documentary evidence requirements for establishing that it is a Non-U.S. Holder, or otherwise establishes an exemption. Dividends paid to Non-U.S. Holders subject to withholding of U.S. federal income tax, as described above under the section titled “*Distributions*,” will generally be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of the Warrant Shares by a Non-U.S. Holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a Non-U.S. Holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. 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 to the tax authorities of the country in which the Non-U.S. Holder resides or is incorporated under the provisions of a specific treaty or agreement.

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

### ***Foreign Accounts***

The Foreign Account Tax Compliance Act (the “FATCA”) generally imposes a 30% withholding tax on dividends (including constructive dividends) on the Warrant Shares if paid to a non-U.S. entity unless (i) if the non-U.S. entity is a “foreign financial institution,” the non-U.S. entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the non-U.S. entity is not a “foreign financial institution,” the non-U.S. entity identifies certain of its U.S. investors, if any, or (iii) the non-U.S. entity is otherwise exempt under FATCA.

Withholding under FATCA generally will apply to payments of dividends (including constructive dividends) on the Warrant Shares. While withholding under FATCA would have also applied to payments of gross proceeds from a sale or other disposition of the Warrant Shares under proposed U.S. Treasury Regulations withholding on payments of gross proceeds is not required. Although such regulations are not final, applicable withholding agents may rely on the proposed regulations until final regulations are issued.

An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Under certain circumstances, a holder may be eligible for refunds or credits of the tax. Holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in the Warrant Shares.

### ***Federal Estate Tax***

Common stock owned or treated as owned by an individual who is not a citizen or resident of the United States (as specially defined for U.S. federal estate tax purposes) at the time of death will be included in the individual’s gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise. A Non-U.S. Holder should consult his, her, or its own tax advisor regarding the U.S. federal estate tax consequences of the ownership or disposition of shares of the Warrant Shares.

**The preceding discussion of material U.S. federal tax considerations is for information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of purchasing, holding and disposing of the Warrant Shares, including the consequences of any proposed changes in applicable laws.**

## LEGAL MATTERS

The validity of the Warrant Shares will be passed upon for us by Stradling Yocca Carlson & Rauth LLP, Newport Beach, California.

## EXPERTS

The consolidated financial statements of VolitionRx Limited as of December 31, 2024 and 2023 and for each of the years in the two-year period ended December 31, 2024, have been incorporated by reference herein and in the registration statement in reliance upon the reports of Sadler, Gibb & Associates, LLC, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information we have filed with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below:

- Our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024, filed with the SEC on March 31, 2025 (our “Annual Report”);
- Our Current Report on Form 8-K, filed with the SEC on [March 26, 2025](#);
- Our Preliminary Proxy Statement on Schedule 14A, as filed with the SEC on [April 4, 2025](#) (to the extent incorporated by reference into Part III of our Annual Report);
- The description of our common stock contained in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 20, 2020, and any amendments or reports filed for the purpose of updating such description.

All documents that we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (excluding those portions of such documents furnished to, rather than filed with, the SEC) (i) after the initial filing date of the registration statement of which this prospectus forms a part and prior to the effectiveness of such registration statement, and (ii) after the date of this prospectus and prior to the termination of the offering, shall be deemed to be incorporated by reference into this prospectus from the date of filing of the documents, unless we specifically provide otherwise. Information that we file with the SEC will automatically update and may replace information previously filed with the SEC. To the extent that any information contained in any current report on Form 8-K or any exhibit thereto, was or is furnished to, rather than filed with the SEC, such information or exhibit is specifically not incorporated by reference.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, upon oral or written request, a copy of any document incorporated by reference at no cost. Requests should be made to:

Rodney Rootsaert  
Secretary  
VolitionRx Limited  
1489 West Warm Springs Road, Suite 110  
Henderson, Nevada 89014

You may also access these documents, free of charge on the SEC’s website at [www.sec.gov](http://www.sec.gov) or on our website at [www.volition.com](http://www.volition.com) under Investors. The information found on our website, or that may be accessed by links on our website, is not part of this prospectus.

## **DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES**

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

## **WHERE YOU CAN FIND MORE INFORMATION**

We file annual, quarterly and current reports and other information with the SEC. The SEC maintains an internet website at [www.sec.gov](http://www.sec.gov) that contains periodic and current reports, proxy and information statements, and other information regarding registrants that are filed electronically with the SEC.

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, filed as part of the registration statement, does not contain all the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us, we refer you to the registration statement and to its exhibits and schedules. You can obtain a copy of the registration statement from the SEC's website.

These documents are also available, free of charge, through the "Investors" section of our website, which is located at [www.volition.com](http://www.volition.com). Information contained on our website is not incorporated by reference into this prospectus and you should not consider information on our website to be part of this prospectus.



**VOLITIONRX LIMITED**

**Up to 448,500 Underwriter Warrant Shares**  
**Up to 3,557,273 Pre-Funded Warrant Shares**  
**Up to 12,727,273 Series A Warrant Shares**  
**Up to 12,727,273 Series B Warrant Shares**  
**Up to 381,818 Placement Agent Warrant Shares**  
**Up to 2,857,389 Form A Warrant Shares**  
**Up to 1,428,693 Form B Warrant Shares**  
**Up to 1,739,087 Investor Warrant Shares**

**PROSPECTUS**

**The date of this prospectus is           , 2025**

---



**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION**

The following table sets forth the various costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of the securities being registered hereunder. All such costs and expenses shall be borne by us. Except for the Securities and Exchange Commission registration fee, all the amounts shown are estimates.

SEC Filing Fee	\$ 2,981.90
Accounting Fees and Expenses	\$ 7,500
Legal Fees and Expenses	\$ 60,000
Transfer Agent Fees and Expenses	\$ 1,000
Miscellaneous	\$ 3,518.10
Total	\$ 75,000

**ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS**

We are incorporated under the laws of the State of Delaware. Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- breach of a director's duty of loyalty to the corporation or its stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares (DGCL Section 174); or
- transaction from which the director derives an improper personal benefit.

Section 145 of the DGCL provides, in general, that a Delaware corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than a derivative action by or in the right of the corporation), by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. In the case of a derivative action, a Delaware corporation may indemnify any such person against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification will be made in respect of any claim, issue or matter as to which such person will have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or any other court in which such action was brought determines such person is fairly and reasonably entitled to indemnity for such expenses. To the extent that a present or former director or officer of a Delaware corporation is successful on the merits or otherwise in defense of any action, suit or proceeding referred to above, or in defense of any claim, issue or matter therein, Section 145 of the DGCL provides that such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with such action, suit or proceeding.

Section 174 of the DGCL provides, among other things, that a director, who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption, may be held liable for such actions. A director who was either absent when the unlawful actions were approved or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

Regarding indemnification for liabilities arising under the Securities Act which may be permitted for directors or officers pursuant to the foregoing provisions, we are informed that, in the opinion of the SEC, such indemnification is against public policy, as expressed in the Securities Act and is therefore unenforceable.

Our Certificate of Incorporation authorizes us to, and our Bylaws provide that, we shall, indemnify our directors and officers to the fullest extent permitted by the DGCL and also pay expenses incurred in defending any such proceeding in advance of its final disposition upon delivery of an undertaking, by or on behalf of an indemnified person, to repay all amounts so advanced if it should be determined ultimately that such person is not entitled to be indemnified under our Bylaws or the DGCL.

As permitted by the DGCL, we have entered into indemnification agreements with each of our directors and certain of our officers. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

We have an insurance policy covering our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act, or otherwise.

Any underwriting agreement or similar agreement that we enter into in connection with an offer of securities pursuant to this registration statement may provide for indemnification by any underwriters of us, our directors, our officers who sign the registration statement and our controlling persons for some liabilities, including liabilities arising under the Securities Act.

#### **ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES**

The following sets forth information regarding all unregistered securities sold by the Registrant since January 1, 2022.

- (1) On March 12, 2024, the Company issued 129,132 shares of its common stock to EpiCypher, Inc. in a private placement transaction for a deemed aggregate purchase price of approximately \$100,000 as partial consideration for certain license rights in connection with a License Agreement between EpiCypher and Belgian Volition. The above issuance did not involve any underwriters, underwriting discounts or commissions, or any public offering and the Company believes such issuance was exempt from the registration requirements of the Securities Act by virtue of Section 4(a)(2) and/or Regulation D due to, among other things, the fact that there was no general solicitation or advertising, the transactions did not involve a public offering of securities, the representations of investment intent and accredited investor status by EpiCypher and the securities were restricted from further transfer as evidenced by legend thereon.
- (2) On December 4, 2023, the Company issued 3,205,431 shares of its common stock to a non-U.S. investor for an aggregate purchase price of approximately \$2.67 million in a private placement transaction. Such shares were issued in reliance on the exemption from registration under Regulation S promulgated under the Securities Act as the offer or sale was made in an offshore transaction and no directed selling efforts were made in the United States by the issuer, a distributor, any of their respective affiliates, or any person acting on behalf of any of the foregoing. In addition, the investor certified that it is not a U.S. Person, as defined in Regulation S, and is not acquiring the securities for the account or benefit of any U.S. Person and agreed to resell such securities only in accordance with the provisions of Regulation S, pursuant to registration under the Securities Act, or pursuant to an available exemption from registration, and agreed not to engage in hedging transactions with regard to such securities unless in compliance with the Securities Act. The shares were issued in book entry form with a restrictive legend to such effect.
- (3) Effective April 4, 2022, the Company issued a warrant to purchase up to 54,000 shares of its common stock, at an exercise price of \$3.05 per share, to a Company employee as an inducement to employment. This warrant vests in two equal installments at 12 months and 24 months from the grant date, subject to continued service and expires on April 4, 2028 and April 4, 2029, respectively.

The above issuance did not involve any underwriters, underwriting discounts or commissions, or any public offering and the Company believes such issuance was exempt from the registration requirements of the Securities Act by virtue of Section 4(a)(2) and/or Regulation D due to, among other things, the fact that there was no general solicitation or advertising, the transactions did not involve a public offering of securities, the representations of investment intent by the investor, and the securities were restricted from further transfer as evidenced by legend thereon.

## ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Exhibits.

See the Exhibit Index immediately preceding the signature page hereto for a list of exhibits filed as part of this Registration Statement on Form S-1, which Exhibit Index is incorporated herein by reference.

(b) Financial Statement Schedules.

All other schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the consolidated financial statements or related notes.

## ITEM 17. UNDERTAKINGS

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
  - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
  - (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Filing Fee" table in the effective Registration Statement; and
  - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

*Provided, however,* that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of this Offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

- (i) Each prospectus filed pursuant to Rule 424(b)(3) shall be deemed to be part of the Registration Statement as of the date the filed prospectus was deemed part of and included in the Registration Statement; and
- (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in this Offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the Registration Statement relating to the securities in the Registration Statement to which that prospectus relates, and this Offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the Registration Statement or made in a document incorporated or deemed incorporated by reference into the Registration Statement or prospectus that is part of the Registration Statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the Registration Statement or prospectus that was part of the Registration Statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this Registration Statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference			Filing Date	Filed Herewith
		Form	File No.	Exhibit		
<a href="#">2.1</a>	<a href="#">Agreement for Sale and Purchase of Shares by and between Singapore Volition and ValiRX, dated September 22, 2010.</a>	8-K/A	000-30402	2.1	5/8/2012	
<a href="#">2.2</a>	<a href="#">Supplementary Agreement to the Share Purchase Agreement, by and between Singapore Volition and ValiRX, dated June 9, 2011.</a>	8-K/A	000-30402	10.15	1/11/2012	
<a href="#">2.3</a>	<a href="#">Share Exchange Agreement by and among Standard Capital Corporation, the controlling shareholders of Standard Capital Corporation, Singapore Volition and the shareholders of Singapore Volition, dated September 26, 2011.</a>	8-K	000-30402	2.1	9/29/2011	
<a href="#">2.4</a>	<a href="#">Agreement, Consent and Waiver by and between Standard Capital Corporation and its Shareholders, dated September 27, 2011.</a>	8-K/A	000-30402	10.28	4/5/2012	
<a href="#">3.1</a>	<a href="#">Second Amended and Restated Certificate of Incorporation, as currently in effect.</a>	S-8	333-280974	4.2	7/24/2024	
<a href="#">3.2</a>	<a href="#">Amended and Restated Bylaws, as currently in effect.</a>	10-Q	001-36833	3.2	5/13/2024	
<a href="#">4.1</a>	<a href="#">Description of Capital Stock.</a>	10-K	001-36833	4.1	2/20/2020	
<a href="#">4.2</a>	<a href="#">Form of Underwriter Warrant issued to Prime Executions, Inc. dba Freedom Capital Markets.</a>	8-K	001-36833	4.1	6/5/2023	
<a href="#">4.3</a>	<a href="#">Form of Pre-Funded Warrant.</a>	8-K	001-36833	4.1	8/12/2024	
<a href="#">4.4</a>	<a href="#">Form of Series A Common Stock Warrant.</a>	8-K	001-36833	4.2	8/12/2024	
<a href="#">4.5</a>	<a href="#">Form of Series B Common Stock Warrant.</a>	8-K	001-36833	4.3	8/12/2024	
<a href="#">4.6</a>	<a href="#">Form of Form A Common Stock Purchase Warrant.</a>	8-K	001-36833	4.1	12/9/2024	
<a href="#">4.7</a>	<a href="#">Form of Form B Common Stock Purchase Warrant.</a>	8-K	001-36833	4.2	12/9/2024	
<a href="#">4.8</a>	<a href="#">Form of Investor Common Stock Purchase Warrant</a>	8-K	001-36833	4.1	3/26/2025	
<a href="#">5.1</a>	<a href="#">Legal Opinion of Stradling Yocca Carlson &amp; Rauth LLP</a>					X
<a href="#">10.1</a>	<a href="#">Non-Exploitation and Third-Party Patent License Agreement, by and among ValiBio SA, ValiRX plc and The Walloon Region, dated December 17, 2009.</a>	8-K/A	000-30402	10.6	2/24/2012	
<a href="#">10.2#</a>	<a href="#">VolitionRx Limited 2011 Equity Incentive Plan dated November 17, 2011.</a>	8-K	000-30402	4.1	11/18/2011	
<a href="#">10.3#</a>	<a href="#">VolitionRx Limited 2011 Equity Incentive Plan Form of Stock Option Agreement.</a>	8-K	000-30402	4.2	11/18/2011	
<a href="#">10.4#</a>	<a href="#">VolitionRx Limited 2011 Equity Incentive Plan Form of Stock Award Agreement for Restricted Stock.</a>	8-K	000-30402	4.3	11/18/2011	
<a href="#">10.5#</a>	<a href="#">VolitionRx Limited 2015 Stock Incentive Plan, as amended April 17, 2023.</a>	8-K	001-36833	10.1	6/30/2023	
<a href="#">10.6#</a>	<a href="#">Form of Notice of Stock Option Grant and Stock Option Agreement under the VolitionRx Limited 2015 Stock Incentive Plan.</a>	S-8	333-214118	10.2	10/14/2016	
<a href="#">10.7#</a>	<a href="#">Form of Notice of Restricted Stock Award and Restricted Stock Agreement under the VolitionRx Limited 2015 Stock Incentive Plan.</a>	S-8	333-214118	10.3	10/14/2016	
<a href="#">10.8#</a>	<a href="#">Form of Notice of Stock Bonus Award and Stock Bonus Award Agreement under the VolitionRx Limited 2015 Stock Incentive Plan.</a>	S-8	333-214118	10.4	10/14/2016	
<a href="#">10.9#</a>	<a href="#">Form of Notice of Stock Appreciation Right Award and Stock Appreciation Right Agreement under the VolitionRx Limited 2015 Stock Incentive Plan.</a>	S-8	333-214118	10.5	10/14/2016	
<a href="#">10.10#</a>	<a href="#">Form of Notice of Restricted Stock Unit Award and Restricted Stock Unit Agreement under the VolitionRx Limited 2015 Stock Incentive Plan.</a>	S-8	333-214118	10.6	10/14/2016	
<a href="#">10.11#</a>	<a href="#">Form of Notice of Performance Shares Award and Performance Shares Award Agreement under the VolitionRx Limited 2015 Stock Incentive Plan.</a>	S-8	333-214118	10.7	10/14/2016	
<a href="#">10.12#</a>	<a href="#">Form of Independent Director Agreement.</a>	10-Q	001-36833	10.33	5/12/2015	
<a href="#">10.13</a>	<a href="#">Real Estate Capital Lease Agreement, by and between Belgian Volition and ING Asset Finance Belgium S.A., dated October 4, 2016 (English translation of French original).</a>	8-K	001-36833	10.1	10/31/2016	
<a href="#">10.14#</a>	<a href="#">Employment Agreement, by and between Volition Diagnostics UK Limited and Jacob Micallef, dated March 7, 2017.</a>	10-K	001-36833	10.28	3/10/2017	

Table of Contents

<a href="#"><u>10.15#</u></a>	<a href="#"><u>Employment Agreement, by and between Volition Diagnostics UK Limited and Martin Faulkes, dated March 7, 2017.</u></a>	10-K	001-36833	10.30	3/10/2017
<a href="#"><u>10.16</u></a>	<a href="#"><u>Unsecured Credit Agreement, by and among VolitionRx Limited, SPRL Belgian Volition and Wallonne de Financement a l' Exportation et de l'Internationalisation des Entreprises Wallones (English translation of French original), dated September 20, 2017.</u></a>	8-K	001-36833	10.1	9/21/2017
<a href="#"><u>10.17</u></a>	<a href="#"><u>Clinical Study Agreement, by and between Volition America, Inc. and the Regents of the University of Michigan, dated July 17, 2017.</u></a>	10-Q	001-36833	10.1	11/9/2017
<a href="#"><u>10.18</u></a>	<a href="#"><u>Amendment #1 to Clinical Study Agreement, by and between Volition America, Inc. and the Regents of the University of Michigan, dated February 17, 2020.</u></a>	10-K	001-36833	10.22	2/20/2020
<a href="#"><u>10.19#</u></a>	<a href="#"><u>Consulting Services Agreement, by and between Singapore Volition Pte. Limited and PB Commodities Pte. Ltd. (Cameron Reynolds), dated December 1, 2020.</u></a>	10-Q	001-36833	10.1	11/12/2020
<a href="#"><u>10.20#†</u></a>	<a href="#"><u>Common Stock Warrant issued by VolitionRx Limited to Gael Forterre, dated January 1, 2021.</u></a>	10-K	001-36833	10.18	3/22/2021
<a href="#"><u>10.21#†</u></a>	<a href="#"><u>Singapore Volition Pte. Limited Employment Agreement Group Chief Financial Officer, by and between Singapore Volition Pte. Limited and Terig Hughes, dated January 27, 2021 and effective February 1, 2021, including the form of Common Stock Warrant attached as Schedule 2.</u></a>	10-K	001-36833	10.19	3/22/2021
<a href="#"><u>10.22#†</u></a>	<a href="#"><u>Volition America, Inc. Employment Agreement Group Chief Commercial Officer, by and between Volition America and Gael Forterre, dated February 1, 2021.</u></a>	10-K	001-36833	10.20	3/22/2021
<a href="#"><u>10.23#</u></a>	<a href="#"><u>Volition Veterinary Diagnostics Development, LLC Employment Agreement Chief Executive Officer, by and between Volition Veterinary Diagnostics Development, LLC and Salvatore Thomas Butera, dated March 25, 2021.</u></a>	10-Q	001-36833	10.6	5/11/2021
<a href="#"><u>10.24#</u></a>	<a href="#"><u>Volition America, Inc. Employment Agreement Chief Operating Officer, by and between Volition America, Inc. and Gaetan Michel, dated September 15, 2021.</u></a>	10-Q	001-36833	10.1	11/10/2021
<a href="#"><u>10.25#†</u></a>	<a href="#"><u>Consulting Services Agreement, by and between Volition Global Services SRL and 3F Management SPRL (Gaetan Michel), dated September 15, 2020.</u></a>	10-Q	001-36833	10.2	11/10/2021
<a href="#"><u>10.26#</u></a>	<a href="#"><u>Employment Agreement Group General Counsel, by and between Volition Diagnostics UK Limited and Nick Plummer, dated August 23, 2021.</u></a>	10-Q	001-36833	10.3	11/10/2021
<a href="#"><u>10.27†</u></a>	<a href="#"><u>Master License and Product Supply Agreement, by and between Belgian Volition SRL and Heska Corporation, dated March 28, 2022.</u></a>	10-Q	001-36833	10.1	5/11/2022
<a href="#"><u>10.28</u></a>	<a href="#"><u>Equity Distribution Agreement, by and between VolitionRx Limited and Jefferies LLC, dated May 20, 2022.</u></a>	8-K	001-36833	1.1	5/20/2022
<a href="#"><u>10.29</u></a>	<a href="#"><u>Underwriting Agreement, by and between VolitionRx Limited and Newbridge Securities Corporation, dated February 17, 2023.</u></a>	8-K	001-36833	1.1	2/21/2023
<a href="#"><u>10.30#</u></a>	<a href="#"><u>Singapore Volition Pte. Limited Employment Agreement Group Chief Executive Officer, by and between Singapore Volition and Cameron Reynolds.</u></a>	10-K	001-36833	10.27	3/15/2023

Table of Contents

<a href="#"><u>10.31</u></a>	<a href="#"><u>Underwriting Agreement, dated June 1, 2023, by and between Volition Rx Limited and Prime Executions, Inc. dba Freedom Capital Markets.</u></a>	8-K	001-36833	1.1	6/5/2023	
<a href="#"><u>10.32#</u></a>	<a href="#"><u>Contract of Employment, by and between Volition Diagnostics UK Ltd. And Dr. Andrew Retter, dated March 19, 2024.</u></a>	10-K	001-36833	10.36	3/25/2024	
<a href="#"><u>10.33#</u></a>	<a href="#"><u>2024 Stock Incentive Plan.</u></a>	8-K	001-36833	10.1	7/3/2024	
<a href="#"><u>10.34#</u></a>	<a href="#"><u>Form of Notice of Stock Option Grant and Stock Option Agreement under the 2024 Stock Incentive Plan</u></a>	S-8	333-280974	99.1(a)	7/24/2024	
<a href="#"><u>10.35#</u></a>	<a href="#"><u>Form of Notice of Performance Shares Award and Performance Shares Agreement under the 2024 Stock Incentive Plan</u></a>	S-8	333-280974	99.1(b)	7/24/2024	
<a href="#"><u>10.36#</u></a>	<a href="#"><u>Form of Notice of Restricted Stock Award and Restricted Stock Agreement under the 2024 Stock Incentive Plan</u></a>	S-8	333-280974	99.1(c)	7/24/2024	
<a href="#"><u>10.37#</u></a>	<a href="#"><u>Form of Notice of Restricted Stock Unit Award and Restricted Stock Unit Agreement under the 2024 Stock Incentive Plan</u></a>	S-8	333-280974	99.1(d)	7/24/2024	
<a href="#"><u>10.38#</u></a>	<a href="#"><u>Form of Notice of Stock Appreciation Right Award and Stock Appreciation Right Award Agreement under the 2024 Stock Incentive Plan.</u></a>	S-8	333-280974	99.1(e)	7/24/2024	
<a href="#"><u>10.39#</u></a>	<a href="#"><u>Form of Notice of Stock Bonus Award and Stock Bonus Award Agreement under the 2024 Stock Incentive Plan</u></a>	S-8	333-280974	99.1(f)	7/24/2024	
<a href="#"><u>10.40</u></a>	<a href="#"><u>Form of Securities Purchase Agreement, dated August 8, 2024, by and among the Company and the purchaser party thereto.</u></a>	8-K	001-36833	10.1	8/12/2024	
<a href="#"><u>10.41#†</u></a>	<a href="#"><u>Permanent employment contract, by and among Belgian Volition SPRL and Gaetan Michel, effective September 2, 2024.</u></a>	10-Q	001-36833	10.3	11/14/2024	
<a href="#"><u>10.42#†</u></a>	<a href="#"><u>First amendment to Consulting Services Agreement, between Volition Global Services SRL and 3F Management SPRL, effective September 1, 2024.</u></a>	10-Q	001-36833	10.4	11/14/2024	
<a href="#"><u>10.43#†</u></a>	<a href="#"><u>Independent Director Agreement, dated November 6, 2024, by and between VolitionRx Limited and Timothy I. Still</u></a>	10-K	001-36833	10.43	3/31/2025	
<a href="#"><u>10.44</u></a>	<a href="#"><u>Securities Purchase Agreement, dated as of December 5, 2024, by and among the Company and the purchasers on the signature pages thereto.</u></a>	8-K	001-36833	10.1	12/9/2024	
<a href="#"><u>21.1</u></a>	<a href="#"><u>List of Subsidiaries.</u></a>	10-K	001-36833	21.1	3/31/2025	
<a href="#"><u>23.1</u></a>	<a href="#"><u>Consent of Independent Registered Public Accounting Firm.</u></a>					X
<a href="#"><u>23.2</u></a>	<a href="#"><u>Consent of Stradling Yocca Carlson &amp; Rauth LLP (included in Exhibit 5.1)</u></a>					X
<a href="#"><u>24.1</u></a>	<a href="#"><u>Power of Attorney (included on the signature page of this prospectus).</u></a>					X
<a href="#"><u>101.INS</u></a>	<a href="#"><u>Inline XBRL Instance Document</u></a>					X
<a href="#"><u>101.SCH</u></a>	<a href="#"><u>Inline XBRL Taxonomy Extension Schema Document.</u></a>					X
<a href="#"><u>101.CAL</u></a>	<a href="#"><u>Inline XBRL Taxonomy Extension Calculation Linkbase Document.</u></a>					X
<a href="#"><u>101.DEF</u></a>	<a href="#"><u>Inline XBRL Taxonomy Extension Definition Linkbase Document.</u></a>					X
<a href="#"><u>101.LAB</u></a>	<a href="#"><u>Inline XBRL Taxonomy Extension Label Linkbase Document.</u></a>					X
<a href="#"><u>101.PRE</u></a>	<a href="#"><u>Inline XBRL Taxonomy Extension Presentation Linkbase Document.</u></a>					X
<a href="#"><u>104</u></a>	<a href="#"><u>Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)</u></a>					X
<a href="#"><u>107</u></a>	<a href="#"><u>Filing Fee Table</u></a>					X

# Indicates a management contract or compensatory plan or arrangement.

† Portions of this exhibit are redacted pursuant to Item 601(a)(6) and/or Item (b)(10)(iv) under Regulation S-K. The registrant agrees to furnish supplementally any omitted schedules to the SEC upon request.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Perth, Australia, on April 4, 2025.

**VOLITIONRX LIMITED**

By: /s/ Cameron Reynolds  
Cameron Reynolds  
President and Chief Executive Officer

**POWER OF ATTORNEY**

Each person whose signature appears below constitutes and appoints Cameron Reynolds and Rodney Rootsart as his or her true and lawful attorneys-in-fact and agents, each acting alone, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this registration statement, and to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and all post-effective amendments thereto, and to file the same, with all exhibits thereto, and all documents in connection therewith, making such changes in this registration statement as such attorneys-in-fact and agents so acting deem appropriate, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in with respect to the offering of securities contemplated by this registration statement, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, each acting alone, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/ Cameron Reynolds</u> Cameron Reynolds	President, Chief Executive Officer and Director (Principal Executive Officer)	April 4, 2025
<u>/s/ Terig Hughes</u> Terig Hughes	Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	April 4, 2025
<u>/s/ Rodney Gerard Rootsart</u> Rodney Gerard Rootsart	Secretary	April 4, 2025
<u>/s/ Guy Innes</u> Guy Innes	Director	April 4, 2025
<u>/s/ Dr. Alan Colman</u> Dr. Alan Colman	Director	April 4, 2025
<u>/s/ Dr. Phillip Barnes</u> Dr. Phillip Barnes	Director	April 4, 2025
<u>/s/ Kim Nguyen</u> Kim Nguyen	Director	April 4, 2025
<u>/s/ Mickie Henshall</u> Mickie Henshall	Director	April 4, 2025
<u>/s/ Dr. Ethel Rubin</u> Dr. Ethel Rubin	Director	April 4, 2025
<u>/s/ Timothy Still</u> Timothy Still	Director	April 4, 2025





Stradling Yocca Carlson &  
Rauth LLP  
660 Newport Center Drive,  
Suite 1600  
Newport Beach, CA 92660-  
6422  
949 725 4000  
stradlinglaw.com

April 4, 2025

VolitionRx Limited  
1489 West Warm Springs Road, Suite 110  
Henderson, Nevada 89014

Re: *Securities Registered Under Registration Statement on Form S-1*

Ladies and Gentlemen:

We have acted as counsel for VolitionRx Limited, a Delaware corporation (the “*Company*”), in connection with the preparation of a Registration Statement on Form S-1 (as may be amended, the “*Registration Statement*”) being filed by the Company with the Securities and Exchange Commission (the “*Commission*”) under the Securities Act of 1933, as amended (the “*Securities Act*”), on April 4, 2025.

The Registration Statement relates to the offering by the Company of up to an aggregate 35,867,306 shares of its common stock, par value \$0.001 per share (the “*Common Stock*”), issuable upon the exercise of outstanding (a) underwriter warrants to purchase up to 448,500 shares of Common Stock issued by the Company in June 2023 (the “*Underwriter Warrants*” and such shares issuable upon exercise of the Underwriter Warrants, the “*Underwriter Warrant Shares*”), (b) pre-funded warrants to purchase up to 3,557,273 shares of Common Stock issued by the Company in August 2024 (the “*Pre-Funded Warrants*” and such shares issuable upon the exercise of the Pre-Funded Warrants, the “*Pre-Funded Warrant Shares*”), (c) Series A common stock purchase warrants to purchase up to 12,727,273 shares of Common Stock issued by the Company in August 2024 (the “*Series A Warrants*” and such shares issuable upon the exercise of the Series A Warrants, the “*Series A Warrant Shares*”), (d) Series B common stock purchase warrants to purchase up to 12,727,273 shares of Common Stock issued by the Company in August 2024 (the “*Series B Warrants*” and such shares issuable upon the exercise of the Series B Warrants, the “*Series B Warrant Shares*”), (e) placement agent warrants to purchase up to 381,818 shares of Common Stock issued by the Company in August 2024 (the “*Placement Agent Warrants*” and such shares issuable upon the exercise of the Placement Agent Warrants, the “*Placement Agent Warrant Shares*”), (f) Form A common stock purchase warrants to purchase up to 2,857,389 shares of Common Stock issued by the Company in December 2024 (the “*Form A Warrants*” and such shares issuable upon the exercise of the Form A Warrants, the “*Form A Warrant Shares*”), (g) Form B common stock purchase warrants to purchase up to 1,428,693 shares of Common Stock issued by the Company in December 2024 (the “*Form B Warrants*” and such shares issuable upon the exercise of the Form B Warrants, the “*Form B Warrant Shares*”), and (h) investor warrants to purchase up to 1,739,087 shares of Common Stock issued by the Company in March 2025 (the “*Investor Warrants*” and such shares issuable upon the exercise of the Investor Warrants, the “*Investor Warrant Shares*”) (the “*Offering*”). For purposes of this opinion letter, the Underwriter Warrant Shares, Pre-Funded Warrant Shares, Series A Warrant Shares, Series B Warrant Shares, Placement Agent Warrant Shares, Form A Warrant Shares, Form B Warrant Shares, and Investor Warrant Shares shall collectively be referred to as the “*Warrant Shares*” and the Underwriter Warrants, Pre-Funded Warrants, Series A Warrants, Series B Warrants, Placement Agent Warrants, Form A Warrants, Form B Warrants, and Investor Warrants shall collectively be referred to as the “*Warrants*”. You have requested our opinion in connection with certain matters relating to the filing of the Registration Statement and the Offering.

In connection with the preparation of this opinion, we have examined such documents and considered such questions of law as we have deemed necessary or appropriate. We have assumed the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof and the genuineness of all signatures. As to questions of fact material to our opinion, we have relied upon the certificates of certain officers of the Company.

Based on the foregoing, and subject to the further limitations, qualifications and assumptions set forth herein we are of the opinion that the Warrant Shares have been duly authorized by the Company and, when issued upon exercise of the Warrants pursuant to their terms, and delivered by the Company against receipt of the exercise price therefor, in the manner described in the Registration Statement and each of the Warrants, the Warrant Shares will be validly issued, fully-paid and non-assessable.

We render this opinion only with respect to the General Corporation Law of the State of Delaware as in effect on the date hereof, and we express no opinion herein concerning the application or effect of the laws of any other jurisdiction. This opinion is limited to the matters stated herein, and no opinion is implied or may be inferred beyond the matters expressly stated herein.

We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement, and further consent to the reference to us under the heading "Legal Matters" in the Registration Statement and any amendments thereto. By giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act and the rules and regulations promulgated thereunder.

This opinion is intended solely for use in connection with the issuance and sale of the Warrant Shares pursuant to the Registration Statement, and may only be relied upon by you and by persons entitled by law to rely upon it pursuant to the applicable provisions of the federal securities laws. This opinion is rendered as of the date hereof and based solely on our understanding of facts in existence as of such date after the examination described in this opinion. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention whether or not such occurrence would affect or modify the opinions expressed herein.

Very truly yours,

STRADLING YOCCA CARLSON & RAUTH LLP

*/s/ Stradling Yocca Carlson & Rauth LLP*

---

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

As independent registered public accountants, we hereby consent to the use of our report dated March 31, 2025, with respect to the financial statements of VolitionRx Limited for the years ended December 31, 2024 and 2023, in its registration statement on Form S-1 relating to the registration of 35,867,306 shares of common stock.

We also consent to the reference of our firm under the caption “interests of named experts and counsel” in the registration statement.

*/s/ Sadler, Gibb and Associates, LLC*

Draper, UT  
April 4, 2025

## Calculation of Filing Fee Tables

FORM S-1  
(Form Type)VOLITIONRX LIMITED  
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered (1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
<b>Securities to Be Registered</b>								
Fees to Be Paid	Equity	Common stock, par value \$0.001 per share, underlying the Underwriter Warrants	457(g)	448,500 <sup>(2)</sup>	\$2.00 <sup>(2)</sup>	\$897,000.00	0.00015310	\$137.33
	Equity	Common stock, par value \$0.001 per share, underlying the Pre-Funded Warrants	457(g)	3,557,273 <sup>(3)</sup>	\$0.001 <sup>(3)</sup>	\$3,557.27	0.00015310	\$0.54
	Equity	Common stock, par value \$0.001 per share, underlying the Series A Warrants and Series B Warrants	457(g)	25,454,546 <sup>(4)</sup>	\$0.57 <sup>(4)</sup>	\$14,509,091.22	0.00015310	\$2,221.34
	Equity	Common stock, par value \$0.001 per share, underlying the Placement Agent Warrants	457(g)	381,818 <sup>(5)</sup>	\$0.6875 <sup>(5)</sup>	\$262,499.88	0.00015310	\$40.19
	Equity	Common stock, par value \$0.001 per share, underlying the Form A Warrants	457(g)	2,857,389 <sup>(6)</sup>	\$0.5722 <sup>(6)</sup>	\$1,634,997.99	0.00015310	\$250.32
	Equity	Common stock, par value \$0.001 per share, underlying the Form B Warrants	457(g)	1,428,693 <sup>(7)</sup>	\$0.71525 <sup>(7)</sup>	\$1,021,872.67	0.00015310	\$156.45
	Equity	Common stock, par value \$0.001 per share, underlying the Investor Warrants	457(g)	1,739,087	\$0.66 <sup>(8)</sup>	\$1,147,797.42	0.00015310	\$175.73
	<b>Total Offering Amounts</b>					\$19,476,816.44		\$2,981.90
	<b>Total Fees Previously Paid</b>							—
	<b>Total Fee Offsets</b>							—
	<b>Net Fee Due</b>							\$2,981.90

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall also cover any additional shares of common stock, par value \$0.001 per share (“Common Stock”), of the registrant that become issuable by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration.
- (2) Consists of up to an aggregate of 448,500 shares of Common Stock that may be issued upon the exercise of the warrants at an exercise price of \$2.00 per share issued in accordance with the terms and conditions of that certain underwriting agreement, dated June 1, 2023, with the underwriters thereto.
- (3) Consists of up to an aggregate of 3,557,273 shares of Common Stock that may be issued upon the exercise of the warrants at an exercise price of \$0.001 per share issued in a registered direct offering in accordance with the terms and conditions of that certain securities purchase agreement, dated August 8, 2024, with the institutional investor thereto.
- (4) Consists of up to an aggregate of 25,454,546 shares of Common Stock that may be issued upon the exercise of the warrants at an exercise price of \$0.57 per share issued in a registered direct offering (the “Registered Direct Offering”) in accordance with the terms and conditions of that certain securities purchase agreement, dated August 8, 2024, with the institutional investor thereto.
- (5) Consists of up to an aggregate of 381,818 shares of Common Stock that may be issued upon the exercise of the warrants at an exercise price of \$0.6875 per share issued to a placement agent in connection with the Registered Direct Offering.
- (6) Consists of an aggregate of 2,857,389 shares of Common Stock that may be issued upon the exercise of the Form A Warrants at an exercise price of \$0.5722 per share issued in a registered director offering pursuant to the terms and conditions of that certain securities purchase agreement, dated December 5, 2024, with the purchasers thereto.
- (7) Consists of an aggregate of 1,428,693 shares of Common Stock that may be issued upon the exercise of the warrants at an exercise price of \$0.71525 per share issued in a registered director offering pursuant to the terms and conditions of that certain securities purchase agreement, dated December 5, 2024, with the purchasers thereto.
- (8) Consists of an aggregate of 1,739,087 shares of Common Stock that may be issued upon the exercise of the warrants at an exercise price of \$0.66 per share issued in a registered direct offering pursuant to the terms and conditions of that certain securities purchase agreement, dated March 24, 2025, with the purchasers thereto.