PROSPECTUS SUPPLEMENT (To Prospectus dated November 8, 2021)



VOLITIONRX LIMITED

Up to 9,170,000 Shares of Common Stock
Up to 3,557,273 Pre-Funded Warrants to Purchase up to 3,557,273 Shares of Common Stock
Up to 12,727,273 Series A Common Stock Purchase Warrants to Purchase up to 12,727,273 Shares of Common Stock
Up to 12,727,273 Series B Common Stock Purchase Warrants to Purchase up to 12,727,273 Shares of Common Stock
Up to 381,818 Placement Agent Warrants to Purchase up to 381,818 Shares of Common Stock
Up to 29,393,637 Shares of Common Stock Issuable Upon Exercise of the Pre-Funded Warrants, Common Stock Purchase Warrants, and
Placement Agent Warrants

We are offering up to 9,170,000 shares of our common stock, par value \$0.001 per share, together with series A common stock purchase warrants to purchase up to 12,727,273 shares of our common stock, or the Series A Warrants, and series B common stock purchase warrants to purchase up to 12,727,273 shares of our common stock, or the Series B Warrants, together with Series A Warrants, the Common Warrants, at a combined public offering price of \$0.55. The shares of common stock, Series A Warrants and Series B Warrants will be separately issued. Each of the respective Common Warrants will have an exercise price of \$0.57 per share. The Series A Warrant is exercisable on or after February 12, 2025, or the Initial Exercise Date, and will be 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 our public announcement on a Current Report on Form 8-K, or 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, or a Series A Milestone Event. The Series B Warrants are exercisable on or after the Initial Exercise Date, and will be exercisable until the earlier of (a) five (5) year anniversary of the Initial Exercise Date and (b) the date that is six (6) months following our public announcement on a Current Report on Form 8-K, or 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, 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 of this milestone.

We are also offering up to 3,557,273 pre-funded warrants (the "Pre-Funded Warrants") to the purchaser whose purchase of shares of our common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the holder, 9.99%) of our outstanding shares of common stock immediately following consummation of this offering, if such purchaser so elects. Each Pre-Funded Warrant will be exercisable for one share of common stock. The combined offering price of each Pre-Funded Warrant and accompanying Common Warrants will equal the price per share of common stock and accompanying Common Warrants sold in this offering, minus \$0.001, and the exercise price of each Pre-Funded Warrant will be \$0.001 per share. For each Pre-Funded Warrant that we sell, the number of shares of our common stock that we are offering will be decreased on a one-for-one basis. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the Common Warrants and the Pre-Funded Warrants.

We refer to the shares of common stock, Pre-Funded Warrants and Common Warrants to be issued in this offering collectively as the "Securities."

Our common stock is listed on the NYSE American Market, or the NYSE American, under the symbol "VNRX." On August 8, 2024, the last reported sale price of our common stock on the NYSE American was \$0.57 per share. In addition, there is no established public trading market for the Pre-Funded Warrants or Common Warrants, and we do not expect a market for the Pre-Funded Warrants or Common Warrants to develop. We do not intend to apply for a listing of the Pre-Funded Warrants or Common Warrants on any national securities exchange. Without an active trading market, the liquidity of the Common Warrants and Pre-Funded Warrants will be limited.

We have engaged H.C. Wainwright & Co., LLC, or the placement agent, to act as our exclusive placement agent in connection with this offering. The placement agent has agreed to use its reasonable best efforts to arrange for the sale of the Securities offered by this prospectus supplement. The placement agent is not purchasing or selling any of the Securities we are offering and is not required to arrange the purchase or sale of any specific number of Securities or dollar amount. We have agreed to pay to the placement agent the fees set forth in the table below, which assumes that we sell all of the Securities offered by this prospectus supplement.

We are also registering warrants to purchase up to 381,818 shares of common stock at an exercise price per share equal to \$0.6875, or the Placement Agent Warrants, which we intend to issue as compensation to the placement agent upon the closing of the offering. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the Placement Agent Warrants. For additional information, refer to the section entitled "Plan of Distribution" on page S-24 of this prospectus supplement.

	Per Pre- Funded Per Share and Warrant and Accompanying Accompanyin Common Common Warrants Warrants			Funded arrant and companying	Total		
Combined offering price	\$	0.55	\$	0.549	\$	7,000,000	
Placement agent fees ⁽¹⁾	\$	0.044	\$	0.044	\$	560,000	
Proceeds, before expenses, to us ⁽²⁾	\$	0.506	\$	0.505	\$	6,440,000	

- (1) We have agreed to pay the placement agent a cash fee equal to 8.0% of the aggregate gross proceeds of the offering. In addition, we have agreed to issue to the placement agent, or its designees, the Placement Agent Warrants, as compensation. We have also agreed to pay to the placement agent \$25,000 for non-accountable expenses, up to \$100,000 for fees and expenses of its legal counsel and other out-of-pocket expenses, up to \$15,950 for closing costs. See "Plan of Distribution" on page S-24 of this prospectus supplement for additional disclosure regarding the placement agent's fees and estimated offering expenses.
- (2) The amount of proceeds, before expenses, to us presented in this table does not give effect to any exercise of the Common Warrants.

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 S-5 of this prospectus supplement and page 3 of the accompanying base prospectus and in the documents incorporated by reference in this prospectus supplement and the accompanying base prospectus to read about factors you should consider before buying our securities.

Neither the Securities and Exchange Commission 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 Company expects to deliver the Securities against payment on or about August 12, 2024, subject to customary closing conditions.

H.C. Wainwright & Co.

The date of this prospectus supplement is August 8, 2024.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a registration statement that was filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process and consists of two parts. The first part is the prospectus supplement, including the documents incorporated by reference herein, which describes the specific terms of this offering. The second part, the accompanying base prospectus, which includes the documents incorporated by reference therein, provides more general information. In general, when we refer only to the prospectus, we are referring to both parts of this document combined.

Before you invest, you should carefully read this prospectus supplement, the accompanying base prospectus, all information incorporated by reference herein and therein, as well as the additional information described under the heading "Where You Can Find More Information." These documents contain information you should carefully consider when deciding whether to invest in our common stock.

This prospectus supplement may add, update or change information contained in the accompanying base prospectus. To the extent there is a conflict between the information contained in this prospectus supplement and the accompanying base prospectus, you should rely on information contained in this prospectus supplement, provided that if any statement in, or incorporated by reference into, one of these documents is inconsistent with a statement in another document having a later date, the statement in the document having the later date modifies or supersedes the earlier statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus.

You should rely only on the information contained in this prospectus supplement, the accompanying base prospectus, any document incorporated by reference herein or therein, or any free writing prospectuses we may provide to you in connection with this offering. Neither we nor the placement agent has authorized anyone to provide you with any different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus supplement and the accompanying base prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide to you. The information contained in this prospectus supplement, the accompanying base prospectus, and in the documents incorporated by reference herein or therein is accurate only as of the date such information is presented. Our business, financial condition, results of operations and prospects may have changed since those respective dates.

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

This prospectus supplement and the accompanying base prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities of the Company other than the Securities to which it relates, nor do this prospectus supplement and the accompanying base prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus concerning our industry and the markets in which we operate, including market position and market opportunity, is based on information from our management's estimates, as well as from industry 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, while we believe that information contained in industry publications, surveys and studies has been obtained from reliable sources, the accuracy and completeness of such information is not guaranteed, and we have not independently verified any of the data contained in these third-party sources.

This prospectus supplement and the accompanying base prospectus, including the documents incorporated by reference herein and therein, include statements that are based on various assumptions and estimates that are subject to numerous known and unknown risks and uncertainties. Some of these risks and uncertainties are described in the section entitled "Risk Factors" beginning on page S-5 of this prospectus supplement and in the section entitled "Risk Factors" starting on page 10 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, or our Annual Report, as well as the other documents we file with the SEC. These and other important factors could cause our future results to be materially different from the results expected as a result of, or implied by, these assumptions and estimates. You should read the information contained in, or incorporated by reference into, this prospectus supplement and the accompanying base prospectus, and the documents incorporated by reference herein and therein, completely and with the understanding that future results may be materially different from and worse than what we expect. See the information included under the heading "Cautionary Note Regarding Forward-Looking Information."

This prospectus supplement does not contain all of the information included in the registration statement of which this prospectus supplement is a part. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. The registration statement containing this prospectus supplement, including the exhibits to the registration statement, provides additional information about us and the Securities offered pursuant to this prospectus supplement. The registration statement, including the exhibits, can be read on the SEC's website mentioned under the heading "Where You Can Find More Information."

Unless we state otherwise or the context indicates otherwise, references to the "Company," "VolitionRx," "Volition," "we," "us," and "our" in this prospectus supplement refer to VolitionRx Limited and its wholly owned subsidiaries, Singapore Volition Pte. Limited, Belgian Volition SRL, Volition Global Services SRL, Volition Diagnostics UK Limited, Volition America, Inc., and its majority-owned subsidiary Volition Veterinary Diagnostics Development LLC. Our fiscal year ends on December 31st of each calendar year. Nucleosomics TM, Capture-PCRTM and Nu.Q® 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 supplement are the property of their respective owners. Additionally, unless otherwise specified, all references to "\$" refer to the legal currency of the United States of America.

PROSPECTUS SUPPLEMENT SUMMARY

This prospectus supplement summary discusses the key aspects of the offering and highlights certain information appearing elsewhere in this prospectus supplement, in the accompanying base prospectus and in the documents we incorporate by reference herein and therein. However, as this is a summary, it does not contain all of the information that you should consider before deciding to invest in our common stock. You are encouraged to carefully read this entire prospectus supplement, the accompanying base prospectus, any free writing prospectus that we have been authorized to use and the documents incorporated by reference herein and in the accompanying base prospectus. You should pay special attention to the information provided under the headings (i) "Risk Factors" in this prospectus supplement, in the accompanying base prospectus, and in our Annual Report, as well as in the other documents we file with the SEC, and (ii) "Management's Discussion and Analysis of Financial Condition and Results of Operations," as well as our financial statements and the related notes thereto and the other documents incorporated by reference in this prospectus supplement and the accompanying base prospectus.

Overview

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 diagnose and monitor a range of life-altering diseases, including certain cancers and diseases associated with NETosis, such as sepsis and COVID-19. Early diagnosis and monitoring have the potential to not only prolong the life of patients but also improve their quality of life.

Our key pillars of focus are:

- 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 monitoring the immune system to save lives.
- · Nu.Q[®] Discover a complete solution to profiling nucleosomes.
- Nu.Q® Cancer monitoring disease progression, response to treatment and minimal residual disease.
- Capture-PCRTM 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, Singapore and Nevada. We now have a team of approximately 100 dedicated employees, spanning a wide range of disciplines; all united in our mission to improve outcomes for patients.

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. 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 as soon as practicable after such materials have been electronically filed with, or furnished to, the SEC. The information contained on 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 or in deciding whether to purchase our securities. 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.

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The Offering

Issuer: VolitionRx Limited

Offering price: \$0.55 per share of common stock and accompanying Common Warrants

Common stock offered by us: Up to 9,170,000 shares

Pre-Funded Warrants offered by us:

Up to 3,557,273 Pre-Funded Warrants to purchase up to 3,557,273 shares of common stock. We are offering Pre-Funded Warrants to purchasers whose purchase of common stock in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or at the election of the purchaser, 9.99%) of our outstanding common stock immediately following consummation of this offering, if they so choose. The purchase price of each Pre-Funded Warrant and accompanying Common Warrants will equal the price per share of common stock and accompanying Common Warrants being sold to the public in this offering, minus \$0.001, and the exercise price of each Pre-Funded Warrant will be \$0.001 per share. Each Pre-Funded Warrant will be immediately exercisable and may be exercised at any time until exercised in full. There is no expiration date for the Pre-Funded Warrants. To better understand the terms of the Pre-Funded Warrants, you should carefully read the "Description of Securities We Are Offering" section of this prospectus supplement. This prospectus supplement also relates to the offering of shares of common stock issuable upon exercise of the Pre-Funded Warrants.

Series A Warrants offered by us:

The Series A Warrants will have an exercise price of \$0.57 per share and will be exercisable on or after the Initial Exercise Date. The Series A Warrants will expire on the earlier of the two-year anniversary of the Initial Exercise Date or 60 days following the Series A Milestone Announcement. To better understand the terms of the Series A Warrants, you should carefully read the "Description of Securities We Are Offering" section of this prospectus supplement. This prospectus supplement also relates to the offering of shares of common stock issuable upon exercise of the Series A Warrants.

Series B Warrants offered by us:

The Series B Warrants will have an exercise price of \$0.57 per share and will be exercisable on or after the Initial Exercise Date. The Series B Warrants will expire on the earlier of the five-year anniversary of the Initial Exercise Date or six months following the Series B Milestone Announcement. To better understand the terms of the Series B Warrants, you should carefully read the "Description of Securities We Are Offering" section of this prospectus supplement. This prospectus supplement also relates to the offering of shares of common stock issuable upon exercise of the Series B Warrants.

Common stock to be outstanding immediately after this offering:

94,836,245 shares, assuming exercise in full of all Pre-Funded Warrants and no exercise of the Common Warrants and Placement Agent Warrants being offered in this offering. To the extent Pre-Funded Warrants are sold, the number of shares of common stock sold in this offering will be reduced on a one-for-one basis.

Placement Agent Warrants offered by us:

Upon the closing of this offering, we will issue as compensation to the placement agent warrants to purchase up to 381,818 shares of common stock at an exercise price per share equal to \$0.6875. The Placement Agent Warrants are exercisable at any time starting from the Initial Exercise Date and from time to time, in whole or in part, and expire on the earlier of August 8, 2029 or within 6 months following the Series B Milestone Announcement. To better understand the terms of the Placement Agent Warrants, you should carefully read the "Description of Securities We Are Offering" section of this prospectus supplement. This prospectus supplement also relates to the offering of shares of common stock issuable upon exercise of the Placement Agent Warrants.

Use of proceeds:

We estimate that the net proceeds of this offering, after deducting placement agent fees and estimated offering expenses, will be approximately \$6.2 million, assuming the exercise in full of all Pre-Funded Warrants offered hereby and assuming no exercise of the Common Warrants and Placement Agent Warrants. We intend to use the net proceeds from this offering for research and continued product development, clinical studies, product commercialization, working capital and other general corporate purposes. For additional information, refer to the section entitled "Use of Proceeds" on page S-9 of this prospectus supplement.

Risk factors:

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the section entitled "*Risk Factors*" beginning on page S-5 of this prospectus supplement and page 10 of our Annual Report, as well as the risks and uncertainties described in the other documents we file with the SEC.

NYSE American symbol:

Our common stock is listed on the NYSE American under the symbol "VNRX." We do not intend to apply for the listing of the Pre-Funded Warrants, Common Warrants, or Placement Agent Warrants on any national securities exchange or other trading system. Without an active trading market, the liquidity of the Pre-Funded Warrants, Common Warrants, and Placement Agent Warrants will be limited.

Unless otherwise indicated, the number of shares of our common stock to be outstanding immediately after this offering is based on 82,108,972 shares of our common stock outstanding as of March 31, 2024, but excludes the following as of such date:

- 4,699,569 shares of our common stock issuable upon the exercise of options under our 2011 Equity Incentive Plan and 2015 Stock Incentive Plan, outstanding as of March 31, 2024, with a weighted average exercise price of approximately \$3.87 per share;
- 862,500 shares of our common stock issuable upon the exercise of warrants outstanding as of March 31, 2024, with a weighted average exercise price of approximately \$3.05 per share;
- 3,532,280 restricted stock units outstanding under our 2015 Stock Incentive Plan as of March 31, 2024, with a weighted average price of \$0.99 per share; and
- an aggregate of 642,693 shares of common stock reserved for future issuance as of March 31, 2024 under our 2015 Stock Incentive Plan.

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

- \cdot no additional issuances, expirations or for feitures of options and warrants after March 31, 2024;
- no exercise of the outstanding options or settlement of outstanding RSUs after March 31, 2024;
- no exercise of the Common Warrants, the Placement Agent Warrants or the warrants outstanding as of March 31, 2024; and
- · exercise in full of the Pre-Funded Warrants.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below, together with all of the other information included in this prospectus supplement, the accompanying base prospectus, and the information incorporated by reference herein and therein, including the risks described under the heading "Risk Factors" beginning on page 10 of our Annual Report on Form 10-K, as well as in the other documents we file with the SEC.

If any of the risks described below, or those incorporated by reference into this prospectus supplement, actually occur, our business, financial condition, results of operations and future prospects could suffer. In that case, the trading price of our common stock may decline and you may lose all or part of your investment. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business, financial condition, results of operations and future prospects. Certain statements below are forward-looking statements. See the information included under the heading "Cautionary Note Regarding Forward-Looking Information."

Risks Related to Our Common Stock and this Offering

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.

This is a best efforts offering, with no minimum amount of securities required to be sold, and we may not raise the amount of capital we believe is required for our business plans, including our near-term business plans, nor will investors in this offering receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus.

The placement agent has agreed to use its reasonable best efforts to solicit offers to purchase the Securities in this offering. The placement agent has no obligation to buy any of the Securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the Securities. We may sell fewer than all of the Securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to support our business goals and continued operations, including our near-term continued operations. Thus, we may not raise the amount of capital we believe is required for our operations in the short-term and may need to raise additional funds to complete such short-term operations. Such additional capital may not be available or available on terms acceptable to us, or at all.

There is no required minimum number of Securities that must be sold as a condition to completion of this offering, and we have not, nor will we, establish an escrow account in connection with this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, the placement agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth herein. Because there is no escrow account and no minimum offering amount, investors could be in a position where they have invested in us, but we are unable to fulfill our objectives due to a lack of interest in this offering. Further, because there is no escrow account in operation and no minimum investment amount, any proceeds from the sale of securities offered by us will be available for our immediate use, despite uncertainty about whether we would be able to use such funds to effectively implement our business plan. Investor funds will not be returned under any circumstances whether during or after the offering.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment. You may experience further dilution if we issue additional common stock in the future.

The offering price of our common stock is substantially higher than the net tangible book value per share of our common stock before giving effect to this offering. Our net tangible book value as of March 31, 2024 was approximately \$(16.8) million, or \$(0.21) per share. After giving effect to the issuance and sale of the maximum number of Securities offered in this offering at a combined public offering price of \$0.55 per share of common stock and accompanying Common Warrants and after deducting placement agent fees and estimated offering expenses payable by us, if you purchase our common stock in this offering, you will incur immediate substantial dilution of approximately \$0.66 per share. Furthermore, if outstanding options or warrants are exercised, you could experience further dilution. See the information included under the heading "Dilution" in this prospectus supplement.

If we issue additional shares of common stock, or securities exercisable for shares of common stock, including under our "at-the-market" offering program, our stockholders, including investors who purchase Securities in this offering, may experience additional dilution, and any such issuances may result in downward pressure on the price of our common stock. We also cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering.

There is no public market for the Pre-Funded Warrants or the Common Warrants sold in this offering.

There is no established public trading market for the Pre-Funded Warrants or Common Warrants being sold in this offering. We will not list the Pre-Funded Warrants or Common Warrants on any securities exchange or nationally recognized trading system, including the NYSE American. Therefore, we do not expect a market to ever develop for the Pre-Funded Warrants or Common Warrants. Without an active market, the liquidity of the Pre-Funded Warrants and the Common Warrants will be limited.

The Pre-Funded Warrants and Common Warrants are speculative in nature. Holders of the Pre-Funded Warrants and the Common Warrants offered hereby will have no rights as common stockholders with respect to the shares our common stock underlying such warrants until such holders exercise their warrants and acquire our common stock, except as otherwise provided in the Pre-Funded Warrants and the Common Warrants.

The Pre-Funded Warrants and Common Warrants do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but merely represent the right to acquire shares of common stock at a fixed price. Commencing on the date of issuance, holders of the Pre-Funded Warrants and the Common Warrants may exercise their right to acquire the underlying shares of common stock and pay the respective stated warrant exercise price per share. Following this offering, the market value of the Common Warrants is uncertain and there can be no assurance that the market value of the Common Warrants, if any, will equal or exceed their combined public offering prices. There can be no assurance that the market price of the shares of common stock will ever equal or exceed the exercise price of the Common Warrants, and consequently, whether it will ever be profitable for holders of Common Warrants to exercise the Common Warrants.

Until holders of the Pre-Funded Warrants and the Common Warrants acquire shares of our common stock upon exercise thereof, holders of such Pre-Funded Warrants and Common Warrants will have no rights with respect to shares of our common stock, except as provided in the Pre-Funded Warrants and the Common Warrants, respectively. Upon exercise of the Pre-Funded Warrants and Common Warrants, such holders will be entitled to the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

A substantial number of shares of common stock may be sold in the market following this offering, which may depress the market price for our common stock

Sales of a substantial number of shares of our common stock in the public market following this offering, or the perception that such sales might occur, could cause the market price of our common stock to decline. A substantial number of the outstanding shares of our common stock are, and the shares of common stock sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act of 1933, as amended, or the Securities Act.

Upon the completion of this offering, approximately 5,447,446 shares of our outstanding common stock beneficially owned by our executive officers and directors will be subject to lock-up agreements with the Company that restrict the sale of shares of our common stock by those parties for a period of 60 days after the date of closing of the offering. However, all of the shares sold in this offering and the remaining shares of our common stock outstanding prior to this offering (which include certain shares that are held by our affiliates other than our officers and directors) will not be subject to lock-up agreements with the company and, except to the extent such shares are subject to lock-up agreements, will be freely tradable without restriction under the Securities Act. The market price of our common stock could decline as a result of sales by our stockholders in the market following completion of this offering or the perception that these sales could occur.

Management will have broad discretion to determine how to use the funds raised in this offering, and may use them in ways that may not enhance our operating results or the price of our common stock.

Our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return. We intend to use the net proceeds of this offering for research and continued product development, clinical studies, product commercialization, working capital and other general corporate purposes. However, our use of these proceeds may differ substantially from our current plans. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could have a material adverse effect on our business, financial condition, operating results and cash flow, and which could cause our stock price to decline.

Because we do not currently intend to declare cash dividends on our shares of common stock in the foreseeable future, stockholders must rely on appreciation of the value of our common stock for any return on their investment.

We have never paid cash dividends on our common stock. We currently intend to retain any future earnings to fund the development and growth of our business. 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. Accordingly, while payment of dividends rests within the discretion of our board of directors, no cash dividends on our common shares have been declared or paid by us and we have no intention of paying any such dividends in the foreseeable future. Any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus supplement, the accompanying base prospectus, 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 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(s)," "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 supplement and the accompanying base prospectus 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 supplement and the accompanying base prospectus.

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 S-5 of this prospectus supplement 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 supplement, the accompanying base prospectus, and the documents incorporated by reference herein and therein, completely and with the understanding that our actual future results may be materially different from 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 date of this prospectus supplement. 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 estimate that the net proceeds from this offering will be approximately \$6.2 million (assuming the sale of the maximum number of Securities offered hereby), after deducting the placement agent fees and estimated offering expenses payable by us and assuming no exercise of the Common Warrants and Placement Agent Warrants and exercise in full of the Pre-Funded Warrants.

However, because this is a best efforts offering with no minimum number of Securities or amount of proceeds as a condition to closing, the actual offering amount, placement agent fees, and net proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth on the cover page of this prospectus, and we may not sell all or any of the Securities we are offering. As a result, we may receive significantly less in net proceeds. We estimate that our net proceeds from the sale of 75%, 50%, and 25% of the Securities offered in this offering would be approximately \$4.6 million, \$3.0 million, and \$1.4 million, respectively, after deducting the placement agent fees and estimated offering expenses payable by us, and assuming no exercise of the Common Warrants and Placement Agent Warrants and exercise in full of the Pre-Funded Warrants. We will only receive additional proceeds from the exercise of the Pre-Funded Warrants, if any, and the Placement Agent Warrants and Common Warrants we are issuing in this offering if the Pre-Funded Warrants, Placement Agent Warrants and the Common Warrants are exercised for cash. We cannot predict when or if the Pre-Funded Warrants, Placement Agent Warrants will be exercised. It is possible that these warrants may expire and may never be exercised.

These estimates exclude the proceeds, if any, from the exercise of Common Warrants offered hereby. If all of the Common Warrants offered hereby were to be exercised in cash at the exercise price of \$0.57 per share, we would receive additional proceeds of approximately \$14.5 million. We cannot predict when or if these Common Warrants will be exercised. It is possible that these Common Warrants may expire and may never be exercised. Additionally, these Common Warrants contain a cashless exercise provision that permit exercise of such Common Warrants on a cashless basis at any time when there is no effective registration statement under the Securities Act covering the issuance of the underlying shares. To the extent not previously exercised, the Common Warrants are automatically exercised via cashless exercise on the Termination Date (as defined in each respective Common Warrant).

These estimates also exclude the proceeds, if any, from the exercise of Placement Agent Warrants to be issued to the placement agent or its designees as compensation in connection with this offering. If all of the Placement Agent Warrants were to be exercised in cash at the exercise price of \$0.6875 per share, we would receive additional proceeds of approximately \$0.3 million. We cannot predict when or if these Placement Agent Warrants will be exercised. It is possible that these Placement Agent Warrants may expire and may never be exercised. Additionally, these Placement Agent Warrants contain a cashless exercise provision that permit exercise of such Placement Agent Warrants on a cashless basis at any time when there is no effective registration statement under the Securities Act covering the issuance of the underlying shares.

We currently anticipate that we will use the net proceeds received by us 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 is based upon our present plans and business condition. As of the date of this prospectus supplement, we cannot predict 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 S-5 of this prospectus supplement 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.

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 invest in our Securities in this offering, your ownership interest will be immediately diluted to the extent of the difference between the public offering price per share of our common stock 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 March 31, 2024, we had a net tangible book value of approximately \$(16.8) million, or \$(0.21) per share of common stock.

After giving effect to the issuance and sale of the maximum number of Securities offered in this offering at a combined offering price of \$0.55 per share of common stock and accompanying Common Warrants, and after deducting the placement agent fees and estimated offering expenses payable by us, and assuming no exercise of Common Warrants and Placement Agent Warrants and exercise in full of the Pre-Funded Warrants, our as adjusted net tangible book value as of March 31, 2024 would have been \$(10.6) million, or \$(0.11) per share. This represents an immediate increase in net tangible book value per share of \$0.09 to existing stockholders, compared to the as adjusted net tangible book value per share, and immediate dilution of \$0.66 per share to investors purchasing Securities 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 combined public offering price per share paid by investors in this offering.

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

Combined offering price per share of common stock and accompanying Common Warrants		\$ 0.55
Net tangible book value per share as of March 31, 2024	\$ (0.205)	
Increase in net tangible book value per share attributable to this offering	\$ 0.093	
As adjusted net tangible book value per share after this offering	\$ (0.112)	
Dilution per share to new investors purchasing in this offering		\$ 0.66

Unless otherwise indicated, the number of shares of our common stock to be outstanding immediately after this offering is based on 82,108,972 shares of our common stock outstanding as of March 31, 2024, but excludes the following as of such date:

- 4,699,569 shares of our common stock issuable upon the exercise of options under our 2011 Equity Incentive Plan and 2015 Stock Incentive Plan, outstanding as of March 31, 2024, with a weighted average exercise price of approximately \$3.87 per share;
- · 862,500 shares of our common stock issuable upon the exercise of warrants outstanding as of March 31, 2024, with a weighted average exercise price of approximately \$3.05 per share;
- 3,532,280 restricted stock units outstanding under our 2015 Stock Incentive Plan as of March 31, 2024, with a weighted average price of \$0.99 per share; and
- an aggregate of 642,693 shares of common stock reserved for future issuance as of March 31, 2024 under our 2015 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 March 31, 2024;
- no exercise of the outstanding options or settlement of outstanding RSUs after March 31, 2024;
- · no exercise of the Common Warrants, the Placement Agent Warrants, or the warrants outstanding as of March 31, 2024; and
- · exercise in full of the Pre-Funded Warrants.

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering up to 9,170,000 shares of our common stock, and Pre-Funded Warrants to purchase up to 3,557,273 shares of our common stock, together with Common Warrants to purchase up to 25,454,546 shares of our common stock.

Common Stock

The following is a summary of all material characteristics of our common stock as set forth in our second amended and restated certificate of incorporation and amended and restated bylaws. This summary does not purport to be complete and is qualified in its entirety by reference to our second amended and restated certificate of incorporation and amended and restated bylaws, copies of which have been filed as exhibits to our SEC filings. The material terms of our common stock are further described under the heading "Description of Capital Stock" in the accompanying base prospectus.

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 May 30, 2024, there were 82,108,972 shares of our common stock outstanding. Our common stock is listed on the NYSE American and traded under the symbol "VNRX." On August 8, 2024, the last reported sale price of our common stock on the NYSE American was \$0.57.

As of August 5, 2024 there were approximately 170 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.

Pre-Funded Warrants

The following summary of certain terms and provisions of the Pre-Funded Warrants that are being offered hereby 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 will have an exercise price of \$0.001 per share. The Pre-Funded Warrants will be 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 and the Common Warrants will be issued separately in this offering, but must be purchased together in this offering. The Pre-Funded Warrants will be issued in certificated form only. The Pre-Funded Warrants will be exercised in 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 will have an exercise price equal to \$0.57 per share and will be exercisable on or after the Initial Exercise Date. The Series A Warrants will be 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 date 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 will be issued separately from the common stock, the Pre-Funded Warrants and the Series B Warrants, as the case may be. The Series A Warrants will be issued in certificated form only. The Series A Warrants will be 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 Common Warrants 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 Purchase 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 Purchase Warrants. Prospective investors should carefully review the terms and provisions of the form of Series B Purchase 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 Warrants will be exercisable on or after the Initial Exercise Date. The Series B Warrants will be 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 will be issued separately from the common stock, the Pre-Funded Warrants and the Series A Warrants, as the case may be. The Series B Warrants will be 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 mediately 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

We have also agreed to issue to the placement agent or its designees as compensation in connection with this offering, the Placement Agent Warrants to purchase up to 381,818 shares of common stock as compensation in connection with this offering. The Placement Agent Warrants will be exercisable on the Initial Exercise Date, will have a termination date on 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 of this milestone and will have substantially the same terms as the Series B Warrants described above, except that the Placement Agent Warrants will have an exercise price of \$0.6875 per share. See "Plan of Distribution" below.

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 shares of the common stock, Pre-Funded Warrants and Common Warrants acquired in this offering. This discussion is based on the current provisions of the Internal Revenue Code of 1986, as amended, or 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, or 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 common stock, Pre-Funded Warrants or Common Warrants, 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 shares of common stock, Pre-Funded Warrants and Common Warrants 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 our common stock, Pre-Funded Warrants or Common Warrants 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 our common stock, Pre-Funded Warrants or Common Warrants 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 common stock, Pre-Funded Warrants or Common Warrants 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 common stock, Pre-Funded Warrants or Common Warrants; 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, Pre-Funded Warrants or Common Warrants 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, Pre-Funded Warrants or Common Warrants, 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 shares of common stock, Pre-Funded Warrants or Common Warrants should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of shares of common stock, Pre-Funded Warrants or Common Warrants 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, Pre-Funded Warrants and Common Warrants.

For the purposes of this discussion, a "U.S. Holder" means a beneficial owner of shares of common stock, Pre-Funded Warrants or Common Warrants acquired in this 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 shares of common stock, Pre-Funded Warrants or Common Warrants that is not a U.S. Holder or a partnership for U.S. federal income tax purposes.

Treatment of Pre-Funded Warrants

Although it is not entirely free from doubt, a Pre-Funded Warrant should be treated as a share of common stock for U.S. federal income tax purposes and a holder of Pre-Funded Warrants should generally be taxed in the same manner as a holder of common stock, as described below. Accordingly, no gain or loss should be recognized upon the exercise of a Pre-Funded Warrant and, upon exercise, the holding period of a Pre-Funded Warrant should carry over to the share of common stock received. Similarly, the tax basis of the Pre-Funded Warrant should carry over to the share of common stock received upon exercise, increased by the exercise price of \$0.001 per share. Each holder should consult his, her or its own tax advisor regarding the risks associated with the acquisition of Pre-Funded Warrants pursuant to this offering (including potential alternative characterizations). The balance of this discussion generally assumes that the characterization described above is respected for U.S. federal income tax

Allocation of Purchase Price

For U.S. federal income tax purposes, each share of common stock (or, in lieu of common stock, each Pre-Funded Warrant) and the accompanying Common Warrants issued pursuant to this offering will be treated as an "investment unit" each of which consisting of one share of common stock or one Pre-Funded Warrant (which, as described above, should generally be treated as a share of common stock for U.S. federal income tax purposes), as applicable, and the accompanying Common Warrants, to acquire one share of common stock. The purchase price for each investment unit will be allocated between these components in proportion to their relative fair market values at the time the unit is purchased by the holder. This allocation of the purchase price for each unit will establish the holder's initial tax basis for U.S. federal income tax purposes in the share of common stock, or, in lieu of common stock, Pre-Funded Warrant) and the Common Warrants included in each unit. The separation of the share of common stock (or, in lieu of common stock, Pre-Funded Warrant) and the Common Warrants included in a unit should not be a taxable event for U.S. federal income tax purposes. Each holder should consult his, her or its own tax advisor regarding the allocation of the purchase price between the common stock (or, in lieu of common stock, Pre-Funded Warrants) and the Common Warrants.

Tax Considerations Applicable to U.S. Holders

Exercise and Expiration of Common Warrants

Except as discussed below with respect to the cashless exercise of Common Warrants, a U.S. Holder generally will not recognize gain or loss for U.S. federal income tax purposes upon exercise of Common Warrants. The U.S. Holder will take a tax basis in the shares acquired on the exercise of Common Warrants equal to the exercise price of the Common Warrants, increased by the U.S. Holder's adjusted tax basis in the Common Warrants exercised (as determined pursuant to the rules discussed above). The U.S. Holder's holding period in the shares of common stock acquired on the exercise of Common Warrants will begin on the date of exercise or possibly the day after such exercise, and will not include any period for which the U.S. Holder held the Common Warrants.

The lapse or expiration of Common Warrants will be treated as if the U.S. Holder sold or exchanged the Common Warrants and recognized a capital loss equal to the U.S. Holder's tax basis in the Common Warrants. The deductibility of capital losses is subject to limitations.

The tax consequences of a cashless exercise of Common Warrants are not clear under current tax law. A cashless exercise may be tax-free, either because the exercise is not a realization event or because the exercise is treated as a recapitalization for U.S. federal income tax purposes. In either tax-free situation, a U.S. Holder's tax basis in the common stock received generally would equal the U.S. Holder's tax basis in the Common Warrants. If the cashless exercise was not a realization event, it is unclear whether a U.S. Holder's holding period for the common stock would be treated as commencing on the date of exercise of the Common Warrants or the day following the date of exercise of the Common Warrants. If the cashless exercise were treated as a recapitalization, the holding period of the common stock would include the holding period of the Common Warrants.

It is also possible that a cashless exercise could be treated as a taxable exchange in which gain or loss would be recognized. In such event, a U.S. Holder could be deemed to have surrendered Common Warrants having an aggregate fair market value equal to the exercise price for the total number of Common Warrants to be exercised. The U.S. Holder would recognize capital gain or loss in an amount equal to the difference between the fair market value of the common stock received in respect of the Common Warrants deemed surrendered and the U.S. Holder's tax basis in such Common Warrants. Such gain or loss would be long-term or short-term, depending on the U.S. Holder's holding period in the Common Warrants deemed surrendered. In this case, a U.S. Holder's tax basis in the common stock received would equal the sum of the U.S. Holder's initial investment in the exercised Common Warrants (i.e., the portion of the U.S. Holder's purchase price for the investment unit that is allocated to the Common Warrants, as described above under the section titled "Allocation of Purchase Price") and the exercise price of such Common Warrants. It is unclear whether a U.S. Holder's holding period for the common stock would commence on the date of exercise of the Common Warrants or the day following the date of exercise of the Common Warrants. There may also be alternative characterizations of any such taxable exchange that would result in similar tax consequences, except that a U.S. Holder's gain or loss would be short-term.

Due to the absence of authority on the U.S. federal income tax treatment of a cashless exercise, there can be no assurance which, if any, of the alternative tax consequences and holding periods described above would be adopted by the IRS or a court of law. Accordingly, U.S. Holders should consult their own tax advisors regarding the tax consequences of a cashless exercise of the Common Warrants.

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 Common Stock, Pre-Funded Warrants or Common Warrants."

Certain Adjustments to Pre-Funded Warrants or Common Warrants

The number of shares of common stock issued upon the exercise of the Pre-Funded Warrants or Common Warrants and the exercise price of Pre-Funded Warrants or Common 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. Adjustments to the conversion rate made pursuant to a bona fide reasonable adjustment formula which has the effect of preventing the dilution of the interest of the holders of Pre-Funded Warrants or Common Warrants generally should not be deemed to result in a constructive distribution. If an adjustment is made that does not qualify as being made pursuant to a bona fide reasonable adjustment formula, a U.S. Holder of Pre-Funded Warrants or Common Warrants may be deemed to have received a constructive distribution from us, even though such U.S. Holder has not received any cash or property as a result of such adjustment. The tax consequences of the receipt of a distribution from us are described above under the section titled "Distributions."

Disposition of Common Stock, Pre-Funded Warrants or Common Warrants

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 shares of common stock, Pre-Funded Warrants or Common Warrants, 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 common stock, Pre-Funded Warrants or Common Warrants sold. Capital gain or loss will constitute long-term capital gain or loss if the U.S. Holder's holding period for the common stock, Pre-Funded Warrants or Common Warrants 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 shares of common stock, Pre-Funded Warrants or Common Warrants 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 common stock, Pre-Funded Warrants and Common Warrants and to the proceeds of a sale or other disposition of common stock, Pre-Funded Warrants and Common Warrants 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

Exercise and Expiration of Common Warrants

In general, a Non-U.S. Holder will not recognize gain or loss for U.S. federal income tax purposes upon the exercise of Common Warrants into shares of common stock, however, to the extent a cashless exercise results in a taxable exchange, the consequences would be similar to those described in the discussion below under the section titled "Disposition of Common Stock, Pre-Funded Warrants or Common Warrants."

The expiration of Common Warrants will be treated as if the Non-U.S. Holder sold or exchanged the Common Warrants and recognized a capital loss equal to the Non-U.S. Holder's tax basis in the Common Warrants. However, a Non-U.S. Holder will not be able to utilize a loss recognized upon expiration of Common Warrants against the Non-U.S. Holder's U.S. federal income tax liability unless the loss is effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if an income tax treaty applies, is attributable to a permanent establishment or fixed base in the United States) or is treated as a U.S.-source loss and the Non-U.S. Holder is present 183 days or more in the taxable year of disposition and certain other conditions are met.

Certain Adjustments to Common Warrants

As described above under the section titled "Tax Considerations Applicable to U.S. Holders – Certain Adjustments to Pre-Funded Warrants and Common Warrants," an adjustment to the Pre-Funded Warrants or Common 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 Pre-Funded Warrants or Common Warrants.

In addition, regulations governing "dividend equivalents" under Section 871(m) of the Code may apply to the Pre-Funded Warrants. Under those regulations, an implicit or explicit payment under the Pre-Funded Warrants that references a dividend distribution on our common stock would possibly be taxable to a Non-U.S. Holder as described below under the section titled "Distributions." Such dividend equivalent amount would be taxable and subject to withholding whether or not there is actual payment of cash or other property, and we may satisfy any withholding obligations it has in respect of the Pre-Funded Warrants by withholding from other amounts due to the Non-U.S. Holder. Non-U.S. Holders are encouraged to consult their own tax advisors regarding the application of Section 871(m) of the Code to the Pre-Funded Warrants.

Distributions

In the event that 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 Common Stock, Pre-Funded Warrants or Common Warrants."

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 Common Stock, Pre-Funded Warrants or Common Warrants

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 shares of common stock, Pre-Funded Warrants or Common Warrants 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 common stock, Pre-Funded Warrants or Common Warrants 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 common stock, Pre-Funded Warrants or Common Warrants 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 common stock, Pre-Funded Warrants or Common Warrants. 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 common stock, Pre-Funded Warrants or Common Warrants 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, or FATCA, generally imposes a 30% withholding tax on dividends (including constructive dividends) on the common stock, Pre-Funded Warrants and Common Warrants 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 our common stock, Pre-Funded Warrants and Common Warrants. While withholding under FATCA would have also applied to payments of gross proceeds from a sale or other disposition of the common stock, Pre-Funded Warrants or Common Warrants, 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 common stock, Pre-Funded Warrants or Common Warrants.

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. The foregoing may also apply to Pre-Funded Warrants and Common Warrants. 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 common stock, Pre-Funded Warrants and Common Warrants.

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 common stock, Pre-Funded Warrants or Common Warrants, including the consequences of any proposed changes in applicable laws.

PLAN OF DISTRIBUTION

Pursuant to an engagement agreement dated July 22, 2024 (the "Engagement Agreement"), we have engaged H.C. Wainwright & Co., LLC to act as our exclusive placement agent to solicit offers to purchase the Securities. The placement agent is not purchasing or selling any such Securities, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of such securities, other than to use its "reasonable best efforts" to arrange for the sale of such Securities by us. Therefore, we may not sell all of the shares of common stock, the Common Warrants and the Pre-Funded Warrants being offered. The terms of this offering are subject to market conditions and negotiations between us, the placement agent and prospective investors. The placement agent will have no authority to bind us by virtue of the Engagement Agreement. This is a best efforts offering and there is no minimum offering amount required as a condition to the closing of this offering. The placement agent may retain sub-agents and selected dealers in connection with this offering.

We have entered into a securities purchase agreement directly with the investor in connection with the offering. Delivery of the shares of common stock, the Common Warrants and the Pre-Funded Warrants offered hereby is expected to occur on or about August 12, 2024, subject to satisfaction of certain customary closing conditions.

We have agreed to pay the placement agent a cash fee equal to 8.0% of the aggregate gross proceeds received in the offering. We have also agreed to reimburse the placement agent for \$25,000 of non-accountable fees and expenses, up to \$100,000 of legal fees and expenses and other out-of-pocket expenses, and up to \$15,950 for closing costs.

In addition, we have agreed to issue to the placement agent or its designees as compensation in connection with this offering the Placement Agent Warrants to purchase 381,818 shares of our common stock at an exercise price of \$0.6875. The Placement Agent Warrants will be exercisable immediately and will expire on 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 of this milestone. The Placement Agent Warrants are registered on the registration statement of which this prospectus supplement forms a part.

We estimate the total expenses of this offering paid or payable by us, exclusive of the placement agent's cash fee of 8.0% of the gross proceeds and expenses, will be approximately \$0.149 million. After deducting the fees due to the placement agent and our estimated expenses in connection with this offering, we expect the net proceeds from this offering will be approximately \$6.2 million.

The following table shows the per share and total cash fees we will pay to the placement agent in connection with the sale of the common stock, the Common Warrants and the Pre-Funded Warrants pursuant to this prospectus.

	Accor Co	hare and npanying mmon arrants			Total		
Combined offering price	\$	0.55	\$	0.549	\$	7,000,000	
Placement agent fees	\$	0.044	\$	0.044	\$	560,000	
Proceeds to us, before expenses	\$	0.506	\$	0.505	\$	6,440,000	

Lock-up Agreements

Each of our officers and directors have agreed with the placement agent to be subject to a lock-up period of 60 days (and we have agreed to be subject to a lock-up period of 90 days) following the date of closing of the offering pursuant to this prospectus. This means that, during the applicable lock-up period, we and such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any of our shares of common stock or any securities convertible into, or exercisable or exchangeable for, shares of common stock, subject to customary exceptions. In addition, we have agreed to not issue any securities that are subject to a price reset based on the trading prices of our common stock or upon a specified or contingent event in the future or enter into any agreement to issue securities at a future determined price for a period of six months following the closing date of this offering, subject to an exception. The investor under the securities purchase agreement may waive this prohibition in its sole discretion and without notice.

Right of First Refusal

We have granted the placement agent a right of first refusal, subject to FINRA Rule 5110(g)(6)(A), for a period of six months following the closing of this offering, to act as sole book-running manager, sole underwriter, or sole placement agent for each and every public offering, including an atthe-market facility, private placement, or any other capital-raising financing of equity, equity-linked, or debt securities, in each instance primarily for the purposes of raising capital, subject to certain exceptions.

Tail

We have also agreed to pay the placement agent a tail fee equal to the cash and warrant compensation in this offering, if any investor, subject to certain exceptions, who was brought over-the-wall by the placement agent or invested in an offering during the term of the placement agent's engagement, provides us with capital in any public or private offering or other financing or capital raising transaction during the six-month period following expiration or termination of the Engagement Agreement.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

Other Relationships

From time to time, the placement agent may provide in the future various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they have received and may continue to receive customary fees and commissions. However, except as disclosed in this prospectus, we have no present arrangements with the placement agent for any further services.

In addition, in the ordinary course of their business activities, the placement agent and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The placement agent and its affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Regulation M Compliance

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the sale of our securities offered hereby by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. The placement agent will be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agent. Under these rules and regulations, the placement agent may not (i) engage in any stabilization activity in connection with our securities; and (ii) bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

Listing and Transfer Agent

Our common stock is listed on the NYSE American and trades under the symbol "VNRX." The transfer agent common stock is VStock Transfer, LLC. There is no established public trading market for the Common Warrants and the Pre-Funded Warrants, and we do not plan on making an application to list the Common Warrants or the Pre-Funded 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 Common Warrants and the Pre-Funded Warrants.

Electronic Distribution

This prospectus in electronic format may be made available on websites or through other online services maintained by the placement agent, or by its affiliates. Other than this prospectus in electronic format, the information on the placement agent's website and any information contained in any other website maintained by the placement agent is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the placement agent in its capacity as an underwriter, and should not be relied upon by investors.

LEGAL MATTERS

Certain legal matters relating to this offering will be passed upon for us by Stradling Yocca Carlson & Rauth LLP, Newport Beach, California. Ellenoff Grossman & Schole LLP, New York, New York, is acting as counsel for the placement agent in connection with this offering.

EXPERTS

The consolidated financial statements of VolitionRx Limited as of December 31, 2023 and 2022 and for each of the years in the two-year period ended December 31, 2023, have been incorporated by reference herein in reliance upon the 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" into this prospectus supplement information that we file with the SEC in other documents. This means that we can disclose important information to you by referring to other documents that contain that information. Any information that we incorporate by reference into this prospectus supplement is considered part of this prospectus supplement.

Information contained in this prospectus supplement and information that we file with the SEC in the future and incorporate by reference in this prospectus supplement automatically modifies and supersedes previously filed information, including information in previously filed documents or reports that have been incorporated by reference in this prospectus supplement, to the extent the new information differs from or is inconsistent with the old information. Any statement so modified will be deemed to constitute a part of this prospectus supplement only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus supplement.

We incorporate by reference, as of their respective dates of filing, the documents listed below that we have filed with the SEC and any additional documents that we may file in the future with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, between the date of this prospectus supplement until the offering of the security covered by this prospectus supplement has been completed, other than, in each case, documents or information deemed to have been "furnished" and not "filed" in accordance with SEC rules:

- our Annual Report on Form 10-K for the year ended December 31, 2023 filed with the SEC on March 25, 2024;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2024 filed with the SEC on May 13, 2024;
- · our Current Reports on Form 8-K filed with the SEC on January 2, 2024, March 19, 2024, April 26, 2024, and July 3, 3024; and
- the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on February 3, 2015, 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 other amendments or reports filed for the purpose of updating such description.

These filings have not been included in or delivered with this prospectus supplement. We hereby undertake to provide without charge to each person, including any beneficial owner, to whom this prospectus supplement is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus supplement, but not delivered with the prospectus, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus supplement incorporates. To request such materials, please contact Mr. Rodney Rootsaert, our Corporate Secretary, at c/o Corporate Secretary, VolitionRx Limited, 1489 West Warm Springs Road, Suite 110, Henderson, Nevada 89014, by telephone at +1 (646) 650-1351 or by email at notice@volition.com. These documents are also available free of charge through the "Investors" section on our website at www.volition.com as soon as practicable after such materials have been electronically filed with, or furnished to, the SEC.

You should rely only on the information contained in this prospectus supplement, in any document incorporated by reference herein, or in any free writing prospectuses we may provide to you in connection with this offering. Neither we nor the placement agent have authorized anyone to provide you with any different information. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide to you.

The information contained in this prospectus supplement, and in the documents incorporated by reference herein, is accurate only as of the date such information is presented. Our business, financial condition, results of operations and future prospects may have changed since those respective dates.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports and other information with the SEC. Our filings with the SEC are available from the SEC's internet site at http://www.sec.gov, which contains reports, proxy and information statements, and other information regarding issuers that file electronically.

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the SEC. As permitted by SEC rules, this prospectus supplement and the accompanying prospectus form a part of the registration statement, but do not contain all of the information that is included in the registration statement. The registration statement contains more information regarding us and our securities, including certain exhibits. You can obtain a copy of the registration statement from the SEC's website.

\$100,000,000



VOLITIONRX LIMITED

Common Stock Warrants Units

We may offer and sell, from time to time in one or more offerings, any combination of common stock, warrants exercisable for shares of our common stock, or units having an aggregate initial offering price not to exceed \$100,000,000. The units may consist of any combination of securities described in this prospectus.

This prospectus provides a general description of the securities we may offer. We will provide you with the specific terms of any offering in one or more supplements to this prospectus. The prospectus supplement may also add, update or change information in this prospectus. You should read this prospectus and any prospectus supplement, as well as the documents incorporated by reference or deemed to be incorporated by reference herein or therein, carefully before you invest in any of the securities offered pursuant to this prospectus. This prospectus may not be used to offer or sell our securities unless accompanied by a prospectus supplement relating to the offered securities.

These securities may be sold directly by us, through dealers or agents designated from time to time, to or through underwriters or dealers or through a combination of these methods on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. We will describe the plan of distribution for any particular offering of our securities in a prospectus supplement. If any agents, underwriters or dealers are involved in the sale of any securities with respect to which this prospectus is being delivered, we will set forth in a prospectus supplement the names of such agents, underwriters or dealers and any applicable fees, commissions, discounts and over-allotment options. We will also set forth in a prospectus supplement the price to the public of such securities and the net proceeds that we expect to receive from such sale.

Our common stock is currently quoted on the NYSE American market under the symbol "VNRX." On September 22, 2021, the last reported sale price of our common stock on the NYSE American market was \$3.13 per share.

INVESTING IN THE SECURITIES WE MAY OFFER INVOLVES VARIOUS RISKS. WE STRONGLY RECOMMEND THAT YOU READ CAREFULLY THE RISKS WE DESCRIBE IN THIS PROSPECTUS AS WELL AS IN ANY ACCOMPANYING PROSPECTUS SUPPLEMENT AND THE RISK FACTORS IN OUR MOST CURRENT REPORTS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION, FOR A FULLER UNDERSTANDING OF THE RISKS AND UNCERTAINTIES THAT WE FACE. SEE THE SECTION ENTITLED "RISK FACTORS" ON PAGE 3.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is November 8, 2021

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process, we may from time to time offer and sell any combination of the securities described in this prospectus in one or more offerings with an aggregate initial offering price not to exceed \$100,000,000. We have provided to you in this prospectus a general description of the securities we may offer. Each time we sell any of our securities under this prospectus, we will, to the extent required by law, provide a prospectus supplement that will contain specific information about the terms of the offering.

We may add, update or change any of the information contained in this prospectus or in any accompanying prospectus supplement we may authorize to be delivered to you. To the extent there is a conflict between the information contained in this prospectus and any accompanying prospectus supplement, you should rely on the information in the prospectus supplement, provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date – for example, a document incorporated by reference in this prospectus or any prospectus supplement – the statement in the document having the later date shall modify or supersede such earlier statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus. This prospectus, together with any accompanying prospectus supplement, includes all material information relating to an offering pursuant to this registration statement.

You should rely only on the information contained in this prospectus, in any accompanying prospectus supplement, or in any document incorporated by reference herein or therein. We have not authorized anyone to provide you with any different information. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide to you. The information contained in this prospectus, in any applicable prospectus supplement, and in the documents incorporated by reference herein or therein is accurate only as of the date such information is presented. Our business, financial condition, results of operations and future prospects may have changed since those respective dates.

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

This prospectus and any accompanying prospectus supplement does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor does this prospectus and any accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. This prospectus may not be used to offer or sell our securities unless accompanied by a prospectus supplement relating to the offered securities.

This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. The registration statement containing this prospectus, including the exhibits to the registration statement, provides additional information about us and the securities offered pursuant to this prospectus. The registration statement, including the exhibits, can be read on the SEC's website or at the SEC's offices mentioned under the heading "Where You Can Find More Information."

We may sell the securities to or through underwriters, dealers or agents or directly to purchasers. We and our agents reserve the sole right to accept or reject in whole or in part any proposed purchase of securities. The prospectus supplement, which we will provide to you each time we offer securities, will set forth the names of any underwriters, dealers or agents involved in the sale of the securities, and any applicable fee, commission or discount arrangements with them. See "Plan of Distribution."

Unless we state otherwise or the context indicates otherwise, references to the "Company", "VolitionRx", "we", "us", and "our" in this prospectus refer to VolitionRx Limited and its subsidiaries. Our fiscal year ends on December 31 of each calendar year. Nucleosomics TM, and Nu.Q[®] and their respective logos are trademarks and/or service marks of VolitionRx Limited and its subsidiaries. All other trademarks, service marks and trade names referred to in this prospectus are the property of their respective owners. Additionally, unless otherwise specified, all references to "\$" refer to the legal currency of the United States of America.

PROSPECTUS SUMMARY

This summary highlights selected information that is presented in greater detail elsewhere in this prospectus or incorporated by reference in this prospectus. Because it is only a summary, it does not contain all of the information you should consider before investing in our securities, and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information included elsewhere in this prospectus. Before you decide whether to purchase our securities, you should read this entire prospectus, the applicable prospectus supplement and any related free writing prospectus carefully, including the risks of investing in our securities discussed under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Overview

We are a multi-national epigenetics company that applies our NucleosomicsTM platform through our subsidiaries to develop simple, easy to use, cost-effective blood tests to help diagnose a range of cancers and some other diseases, including sepsis and COVID-19, that are associated with the presence in the blood of networks of fibers released from activated neutrophils, a phenomenon known as NETosis. We hope that through earlier diagnosis we can help save and improve the quality of human and animals' lives throughout the world.

Our assays are based on the science of NucleosomicsTM, which is the practice of identifying and measuring nucleosomes in the bloodstream or other bodily fluid, since changes in these parameters are an indication that disease is present.

Our approach is to investigate the epigenetic structure of chromatin and nucleosomes rather than investigating only the DNA sequence. We are continuously developing new technologies including:

- A suite of low cost Nu.Q[®] immunoassays that can accurately measure nucleosomes containing numerous epigenetic signals or structures, now being developed on a range of different enzyme-linked immunosorbent assay, or ELISA, platforms.
- Nu.Q[®] Capture technology to isolate or enrich nucleosomes containing particular epigenetic signals or structures for a wide range of potential scientific and medical applications, e.g., the enrichment of nucleosomes of tumor origin in blood samples taken from cancer patients.
- The production of synthetic (recombinant) nucleosomes, containing exact defined epigenetic signals and structures, which is now in-house. These nucleosomes are used to ensure maximal accuracy of Nu.Q[®] immunoassay tests but also have many other applications including Research Use Only, or RUO, kits and as tools in epigenetic drug development.

We have also developed the use of the Nu.Q[®] technology in veterinary applications and launched its first product, the Nu.Q[®] Vet Cancer Screening Test, in the fourth quarter of 2020. We are in the process of developing additional veterinary products, including a treatment monitoring test, a disease recurrence test and a point-of-care platform. Our extensive intellectual property portfolio includes the coverage of veterinary applications.

Corporate Information

We are a Delaware corporation. Our executive offices are located at 13215 Bee Cave Parkway, Suite 125, Galleria Oaks B, Austin, Texas 78738, and our telephone number is +1 (646) 650-1351. We maintain a website at 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 as soon as practicable after such materials have been electronically filed with, or furnished to, the SEC. The information contained on or accessed through our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be a part of this prospectus or in deciding whether to purchase our securities. 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.

RISK FACTORS

Before making an investment decision, you should carefully consider the risks described under "Risk Factors" in the applicable prospectus supplement and in our most recent Annual Report on Form 10-K, or any updates in our Quarterly Reports on Form 10-Q, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. The risks so described are not the only risks facing our company. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. For more information, see the information included under the heading "Where You Can Find More Information."

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus, any accompanying prospectus supplement, and the documents incorporated by reference herein and therein, include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements other than statements of historical fact contained in this prospectus, any accompanying prospectus supplement, or the documents incorporated by reference herein or therein, including statements regarding estimates, future events, our future financial performance, business strategy and plans and objectives of management for future operations, including with respect to us specifically and the cancer diagnostics industry in general, are forward-looking statements. We have attempted to identify estimates and forward-looking statements by terminology including "aims," "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "goal," "intends," "may," "plans," "potential," "predicts," "seeks," "should," "suggests," "targets" or "will" or the negative of these terms or other comparable terminology. Although we do not make estimates or forward-looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. Our estimates and forward-looking statements are based on our current assumptions and expectations about future events and trends, which affect or may affect our business, strategy, operations or financial performance. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, which may cause our or our industry's actual results, levels of activity, performance or achievements to vary materially from those expressed or implied by these estimates and forward-looking statements.

Factors that could cause or contribute to such differences in results and outcomes include, but are not limited to, those discussed under the section entitled "Risk Factors" in this prospectus, any accompanying prospectus supplement, and in any documents incorporated by reference herein and therein. Readers should carefully review this information as well as other risks and uncertainties described in other filings with the SEC that we may make after the filing date of this prospectus. See the information included under the heading "Where You Can Find More Information."

Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time and it is not possible for us to predict all risk factors, nor can we address the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause our actual results to differ materially from those contained in any estimates or forward-looking statements. All estimates and forward-looking statements speak only as of the date they were made, and, except to the extent required by applicable law or regulation, we undertake no obligation to update or to review any estimate and/or forward-looking statement. In light of these risks and uncertainties, we cannot assure you that the estimates or forward-looking statements contained in this prospectus, any accompanying prospectus supplement, or the documents incorporated by reference herein or therein, will in fact occur. You should not place undue reliance on these estimates and forward-looking statements.

We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We intend to use the net proceeds we receive from the sale of our securities offered by us hereby for continued product development, clinical studies, product commercialization, working capital and other general corporate purposes.

We may set forth additional information regarding the use of proceeds from the sale of securities we offer under this prospectus in a prospectus supplement relating to the specific offering. We have not determined the amount of net proceeds to be used specifically for the foregoing purposes. As a result, our management will have broad discretion in the allocation of net proceeds.

GENERAL DESCRIPTION OF SECURITIES

We, directly or through agents, dealers or underwriters designated from time to time, may offer, issue and sell, together or separately, in one or more offerings, up to \$100,000,000 in the aggregate, inclusive of any exercise price thereof, of:

- shares of our common stock, par value \$0.001 per share;
- · warrants to purchase shares of our common stock;
- units comprised of one or more shares of common stock and warrants in any combination; or
- any combination of the foregoing, each on terms to be determined at the time of sale.

The common stock, warrants and units are collectively referred to herein as the securities. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities under this prospectus, we will, to the extent required by law, provide you with a prospectus supplement that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information in this prospectus. The securities involve various risks that we will describe in the section entitled "Risk Factors" that will be included in each prospectus supplement. For more details, see the information included under the heading "About this Prospectus."

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. This summary does not purport to be complete and is qualified in its entirety by reference to our second amended and restated certificate of incorporation and amended and restated bylaws, copies of which have been filed as exhibits to our SEC filings. For more information, see "Where You Can Find More Information."

Common Stock

We have authority under our second amended and restated certificate of incorporation to issue up to 100,000,000 shares of our common stock, par value \$0.001 per share. As of September 22, 2021, there were 53,222,361 shares of our common stock issued and outstanding.

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 nonassessable.

Registration Rights

Cotterford Company Limited, or Cotterford, is entitled to certain "piggy-back" registration rights where, if at any time, there is not an effective registration statement covering all of the Registrable Securities (as defined in the Cotterford Agreement) 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), Cotterford can require us to register its Registrable Securities (subject to cutbacks at the request of the underwriters, if applicable). These rights are provided under the terms of a Common Stock Purchase Agreement dated August 8, 2018, or the Cotterford Agreement. We generally must pay all expenses relating to any such registration, other than Cotterford's counsel, broker's commissions, discounts or fees and transfer taxes. These registration rights terminate automatically upon the earlier of the sale of the Registrable Securities and the date such registrable securities may be resold without volume or manner-of-sale limitations pursuant to Rule 144 under the Securities Act. The Registrable Securities were registered for resale pursuant to a Registration Statement on Form S-3, File No. 333-227731, initially declared effective by the SEC on October 15, 2018.

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

Certain provisions of Delaware law, our second amended and restated certificate of incorporation and our amended and restated 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 second amended and restated certificate of incorporation and amended and restated 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 proceeding 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, or 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.

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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 the voting stock of the corporation 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, (1) shares owned by persons who are directors and also officers and (2) shares owned by 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 the date of the transaction, the business combination is approved by the board of directors of the corporation 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 restated certificate of incorporation and our amended and restated 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.

NYSE American Market

Our common stock is listed on the NYSE American market and traded under the symbol "VNRX." On September 22, 2021, the last reported sale price for our common stock on the NYSE American market was \$3.13 per share.

Transfer Agent and Registrar

The transfer agent and registrar for 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.

DESCRIPTION OF WARRANTS

We may offer, sell and issue, from time to time, warrants to purchase shares of our common stock. The warrants may be issued independently or together with shares of our common stock and may be attached to or separate from the shares of our common stock. If we issue warrants, they will be evidenced by warrant agreements or warrant certificates issued under one or more warrant agreements, which will be contracts between us and/or a bank or trust company, as warrant agent, and the holders of the warrants or an agent for the holders of the warrants, all as shall be set forth in the prospectus supplement relating to warrant speing offered pursuant to such prospectus supplement. The forms of warrant agreements or warrant certificates, as applicable, relating to the warrants will be filed as exhibits to the registration statement of which this prospectus is part and/or will be incorporated by reference from reports that we file with the SEC.

The following summary of material provisions of the warrants and warrant agreements are subject to, and qualified in their entirety by reference to, all of the provisions of the warrant agreement and warrant certificate applicable to a particular series of warrants. We urge you to read the applicable prospectus supplement and any related free writing prospectus, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants.

Whenever warrants are to be issued and sold pursuant to this prospectus, we will file a prospectus supplement relating to that offer and sale which will specify (in each case as applicable):

- · the number of shares of common stock purchasable upon exercise of the warrants and the exercise price at which such number of shares may be purchased upon exercise;
- the price or prices at which the warrants will be issued;
- the provisions, if any, for changes to or adjustments in the exercise price;
- the provisions, if any, for call rights or put rights relating to the warrants or the underlying shares of common stock;
- the date on which the right to exercise the warrants shall commence and the date on which the right will expire;
- · if applicable, the number of warrants issued with each share of our common stock;
- if applicable, the date on and after which the warrants and the related common stock will be separately transferable; and
- · any other terms of the warrants, including terms, procedures and limitations relating to the exchange, exercise and settlement of the

Until any warrants to purchase common stock are exercised, the holders of warrants will not be entitled, by virtue of being such holders, to vote, consent, receive dividends, receive notice as stockholders with respect to any meeting of stockholders for the election of our directors or any other matter, or to exercise any rights whatsoever as our stockholders.

Each warrant will entitle the holder to purchase for cash such shares of our common stock at such exercise price as shall be in each case be set forth in, or be determinable as set forth in, the prospectus supplement relating to the warrants offered thereby. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the prospectus supplement relating to the warrants offered thereby. After the close of business on the expiration date, unexercised warrants will become void.

The warrants may be exercised as set forth in the prospectus supplement relating to the warrants offered. Upon receipt of payment and the warrant certificate properly completed and duly executed at the Company or the corporate trust office of the warrant agent, as applicable, or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the shares of our common stock purchasable upon such exercise. If less than all of the warrants represented by such warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants.

DESCRIPTION OF UNITS

We may issue units comprised of one or more of the other securities described in this prospectus in any combination from time to time. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. If we issue units, they will be evidenced by unit agreements or unit certificates issued under one or more unit agreements, which will be contracts between us and the holders of the units or an agent for the holders of the units. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. The forms of unit agreements or unit certificates, as applicable, relating to the units will be filed as exhibits to the registration statement that includes this prospectus, or as an exhibit to a filing with the SEC that is incorporated by reference into this prospectus.

PLAN OF DISTRIBUTION

We may sell our securities from time to time in any manner permitted by the Securities Act, including any one or more of the following ways:

- to investors through agents;
- directly to agents;
- · to or through underwriters;
- · to or through broker-dealers (acting as agent or principal);
- · in a block trade;
- in ordinary brokerage transactions and transactions in which a broker solicits purchasers;
- · in privately negotiated transactions;
- in "at the market" offerings, within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise; and/or
- directly to purchasers, through a specific bidding or auction process or otherwise.

The securities may be sold at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices relating to the prevailing market prices or at negotiated prices.

Offers to purchase offered securities may be solicited by agents designated by us from time to time. Any agent involved in the offer or sale of the offered securities in respect of which this prospectus is delivered will be named, and any commissions payable by us will be set forth, in the applicable prospectus supplement. Unless otherwise set forth in the applicable prospectus supplement, any agent will be acting on a reasonable best efforts basis for the period of its appointment. Any agent may be deemed to be an underwriter, as that term is defined in the Securities Act, of the offered securities so offered and sold.

We will set forth in a prospectus supplement the terms of the offering of our securities, including:

- · the name or names of any agents, underwriters or dealers;
- the purchase price of our securities being offered and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and commissions and other items constituting agents' or underwriters' compensation;
- the public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchanges on which such securities may be listed.

If offered securities are sold to the public by means of an underwritten offering, either through underwriting syndicates represented by managing underwriters or directly by the managing underwriters, we will execute an underwriting agreement with an underwriter or underwriters, and the names of the specific managing underwriter or underwriters, as well as any other underwriters, will be set forth in the applicable prospectus supplement. In addition, the terms of the transaction, including commissions, discounts and any other compensation of the underwriters and dealers, if any, will be set forth in the applicable prospectus supplement, which prospectus supplement will be used by the underwriters to make resales of the offered securities. If underwriters are utilized in the sale of the offered securities, the offered securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including:

- transactions on the NYSE American market or any other organized market where the securities may be traded;
- · in the over-the-counter market;
- · in negotiated transactions; or
- · under delayed delivery contracts or other contractual commitments.

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We may grant to the underwriters options to purchase additional offered securities to cover over-allotments, if any, at the public offering price with additional underwriting discounts or commissions, as may be set forth in the applicable prospectus supplement. If we grant any over-allotment option, the terms of the over-allotment option will be set forth in the applicable prospectus supplement.

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

We may indemnify agents, underwriters and dealers against specified liabilities, including liabilities incurred under the Securities Act, or to contribution by us to payments they may be required to make in respect of such liabilities. Agents, underwriters or dealers, or their respective affiliates, may be customers of, engage in transactions with or perform services for us or our respective affiliates, in the ordinary course of business.

Unless otherwise specified in the applicable prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than our common stock, which is traded on the NYSE American market. We may elect to list any other class or series of securities on any exchange and, in the case of our common stock, on any additional exchange. However, unless otherwise specified in the applicable prospectus supplement, we will not be obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the offered securities.

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

To comply with the securities laws of certain states, if applicable, the securities offered by this prospectus will be offered and sold in those states only through registered or licensed brokers or dealers.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

LEGAL MATTERS

Certain legal matters, including the validity of the issuance of the securities offered by this prospectus, will be passed on by Stradling Yocca Carlson & Rauth, a Professional Corporation, Newport Beach, California.

EXPERTS

The consolidated financial statements of VolitionRx Limited as of December 31, 2020 and 2019 and for each of the years in the two-year period ended December 31, 2020 have been incorporated by reference herein and in the registration statement in reliance upon the reports of Sadler, Gibb & Associates, LLC, our independent registered public accountant, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The report of Sadler, Gibb & Associates, LLC dated March 22, 2021 notes that our net losses since inception and accumulation of a significant deficit raise substantial doubt that we will be able to continue as a going concern without further financing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate" into this prospectus information that we file with the SEC in other documents. This means that we can disclose important information to you by referring to other documents that contain that information. Any information that we incorporate by reference into this prospectus is considered part of this prospectus.

Information contained in this prospectus and information that we file with the SEC in the future and incorporate by reference in this prospectus automatically modifies and supersedes previously filed information, including information in previously filed documents or reports that have been incorporated by reference in this prospectus, to the extent the new information differs from or is inconsistent with the old information. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus. For more information, see "About this Prospectus."

We incorporate by reference, as of their respective dates of filing, the documents listed below that we have filed with the SEC and any additional documents that we may file in the future with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including any documents filed after the date on which the registration statement of which this prospectus is a part is initially filed until the offering of the security covered by this prospectus has been completed, other than, in each case, documents or information deemed to have been "furnished" and not "filed" in accordance with SEC rules:

- · our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, as filed with the SEC on March 22, 2021;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2021 and June 30, 2021, as filed with the SEC on May 11, 2021 and August 11, 2021, respectively;
- our Definitive Proxy Statement on Schedule 14A, as filed with the SEC on April 29, 2021 (to the extent incorporated by reference into Part III of our Annual Report on Form 10-K for the year ended December 31, 2020);
- our Current Reports on Form 8-K as filed with the SEC on each of January 15, 2021, February 2, 2021, February 9, 2021, February 12, 2021, March 29, 2021 and June 22, 2021; and
- the description of our common stock contained in our registration statement on Form 8-A, as filed with the SEC on February 3, 2015, Exhibit 4.1 to our Annual Report on Form 10-K for the year ended December 31, 2019, as filed with the SEC on February 20, 2020, and any other amendments or reports filed for the purpose of updating such description.

We hereby undertake to provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus, but not delivered with the prospectus, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into this prospectus. To request such materials, please contact Mr. Rodney Rootsaert, our Corporate Secretary at c/o Corporate Secretary, VolitionRx Limited, 13215 Bee Cave Parkway, Suite 125, Galleria Oaks B, Austin, Texas 78738 by telephone at +1 (646) 650-1351 or by email at notice@volition.com. These documents are also available free of charge through the investors section on our website at www.volition.com as soon as practicable after such materials have been electronically filed with, or furnished to, the SEC.

You should rely only on the information contained in this prospectus, in any accompanying prospectus supplement, or in any document incorporated by reference herein or therein. We have not authorized anyone to provide you with any different information. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide to you. The information contained in this prospectus, in any applicable prospectus supplement, and in the documents incorporated by reference herein or therein is accurate only as of the date such information is presented. Our business, financial condition, results of operations and future prospects may have changed since those respective dates.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports and other information with the SEC. Our filings with the SEC are available from the SEC's website at www.sec.gov, which contains reports, proxy and information statements, and other information regarding issuers that file electronically.

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the SEC. As permitted by SEC rules, this prospectus supplement and the accompanying prospectus form a part of the registration statement, but do not contain all of the information that is included in the registration statement. The registration statement contains more information regarding us and our securities, including certain exhibits. You can obtain a copy of the registration statement from the SEC's website.



VOLITIONRX LIMITED

Up to 9,170,000 Shares of Common Stock
Up to 3,557,273 Pre-Funded Warrants to Purchase up to 3,557,273 Shares of Common Stock
Up to 12,727,273 Series A Common Stock Purchase Warrants to Purchase up to 12,727,273 Shares of Common Stock
Up to 12,727,273 Series B Common Stock Purchase Warrants to Purchase up to 12,727,273 Shares of Common Stock

Up to 381,818 Placement Agent Warrants to Purchase up to 381,818 Shares of Common Stock
Up to 29,393,637 Shares of Common Stock Issuable Upon Exercise of the Pre-Funded Warrants, Common Stock Purchase Warrants, and
Placement Agent Warrants

PROSPECTUS SUPPLEMENT

H.C. Wainwright & Co.

August 8, 2024