

PROSPECTUS SUPPLEMENT
(To Prospectus dated November 8, 2021)

Up to \$25,000,000



VOLITIONRX LIMITED
Common Stock

We have entered into an Equity Distribution Agreement, dated May 20, 2022, or the Distribution Agreement, with Jefferies LLC, or Jefferies, relating to our common stock, par value \$0.001 per share, offered by this prospectus supplement and accompanying prospectus. In accordance with the terms of the Distribution Agreement, we may offer and sell our common stock having an aggregate offering price of up to \$25,000,000 from time to time through Jefferies acting as our agent or principal. The Distribution Agreement supersedes our prior equity distribution agreement dated September 24, 2021, which was terminated effective May 7, 2022.

This prospectus supplement should be read in conjunction with the accompanying prospectus, and is qualified by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the accompanying prospectus. This prospectus supplement is not complete without, and may only be delivered or utilized in connection with, the accompanying prospectus, and any future amendments or supplements thereto.

Our common stock is listed on the NYSE American and traded under the symbol “VNRX.” On May 19, 2022, the last reported sale price of our common stock as reported on the NYSE American was \$2.56 per share.

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

The Designated Agent will be entitled to compensation at a fixed commission rate of 3.0% of the respective gross sales price per share sold through it as designated agent under the Distribution Agreement. In connection with the sale of our common stock on our behalf, the Designated Agent will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of the Designated Agent will be deemed to be underwriting commissions. We have also agreed to provide rights of indemnification and contribution to the Designated Agent with respect to certain liabilities, including liabilities under the Securities Act. See “*Plan of Distribution*.”

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING “RISK FACTORS” BEGINNING ON PAGE S-4 OF THIS PROSPECTUS AND PAGE 13 OF OUR ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2021, AS WELL AS THE RISKS AND UNCERTAINTIES DESCRIBED IN THE OTHER DOCUMENTS WE FILE WITH THE SEC.

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

Jefferies

The date of this prospectus supplement is May 20, 2022.

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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. Under the shelf registration statement, we may, from time to time, offer and sell, either individually or in combination, in one or more offerings shares of our common stock, warrants, or units, having an aggregate offering price of up to \$100,000,000. Under this prospectus supplement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$25,000,000 from time to time at prices and terms to be determined by market conditions at the time of offering.

This prospectus supplement relates to a new equity distribution agreement we entered into with Jefferies LLC, dated May 20, 2022, and is unrelated to our previous equity distribution agreement or prior equity distribution agreement prospectus supplement. Such previous equity distribution agreement and offering of our common stock terminated effective May 7, 2022.

Before you invest, you should carefully read this prospectus supplement, the accompanying 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 prospectus. To the extent there is a conflict between the information contained in this prospectus supplement and the accompanying 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 prospectus, any document incorporated by reference herein, or any free writing prospectuses we may provide to you in connection with this offering. Neither we nor the Designated Agents 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, the accompanying 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 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 supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the shares of common stock to which they relate, nor does this prospectus supplement and the accompanying 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 opportunity, market position and competitive landscape, is based on information from our management’s estimates, as well as from industry publications, 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 the 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 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-4 of this prospectus supplement and in the section entitled “Risk Factors” starting on page 13 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, 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 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 does not contain all of the information included in the registration statement of which this prospectus 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 or at the SEC’s offices 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 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 Volition Germany GmbH, and its majority-owned subsidiary Volition Veterinary Diagnostics Development LLC. Our fiscal year ends on December 31 of each calendar year. NucleosomicsTM 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 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 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 you should consider before deciding to invest in our common stock. You are encouraged to carefully read this entire prospectus supplement and the accompanying prospectus, including the information provided under the headings (i) "Risk Factors" in this prospectus supplement and the accompanying 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 prospectus.

Overview

We are a multi-national epigenetics company that applies its Nucleosomics™ platform through its subsidiaries to develop simple, easy to use, cost-effective blood tests to help diagnose and monitor a range of life-altering diseases including certain cancers and diseases associated with NETosis such as sepsis and COVID-19. Our mission is to save lives and improve outcomes for millions of people and animals worldwide. Early diagnosis and monitoring have the potential to not only prolong the life of patients, but also to improve their quality of life.

Our blood tests are based on the science of Nucleosomics™, which is the practice of identifying and measuring nucleosomes in the bloodstream or other bodily fluid—an indication that disease is present. We are primarily focused on human diagnostics and monitoring but also have a subsidiary focused on animal diagnostics and monitoring.

We have five key pillars of focus, all of which use the same proprietary Nu.Q® platform to commercialize in different areas.

- **Nu.Q® Vet** - cost-effective, easy-to-use cancer screening blood test for dogs and other animals
- **Nu.Q® NETs** - monitoring the immune system to save lives
- **Nu.Q®** - detecting cancer early to save lives
- **Nu.Q® Capture** - capturing and concentrating samples for more accurate diagnosis
- **Nu.Q® Discover** - a complete solution to profiling nucleosomes

Our research and development activities are centered in Belgium, with an innovation laboratory in California, and additional offices in Texas, London, and Singapore, where we focus on bringing our diagnostic and disease monitoring products to market.

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.

THE OFFERING

Issuer: VolitionRx Limited

Common Stock offered by us: A number of shares of common stock resulting in aggregate gross proceeds to us of up to \$25.0 million.

Common Stock to be outstanding after this offering: Up to 63,555,886 shares of common stock, assuming sales of 9,765,625 shares of our common stock in this offering at an offering price of \$2.56 per share, which was the last reported sale price of our common stock on the NYSE American on May 19, 2022. The actual number of shares issued will vary depending on the sales price under this offering.

Manner of offering: “At the market” offering that may be made from time to time by or through Jefferies, acting as designated agent or as principal, or in privately negotiated transactions. For additional information, refer to the section entitled “*Plan of Distribution*” on page S-15.

Use of proceeds: We intend to use the net proceeds from this offering for continued product development, clinical studies, product commercialization, working capital and other general corporate purposes, including potential strategic acquisitions. For additional information, refer to the section entitled “*Use of Proceeds*” on page S-6.

Risk factors: Investing in our common stock 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-4 of this prospectus supplement and page 13 of our Annual Report, as well as the risks and uncertainties described in the other documents we file with the SEC.

NYSE American symbol: VNRX

Unless otherwise indicated, the number of shares of our common stock to be outstanding immediately after this offering as shown above is based on 53,790,261 shares of our common stock outstanding as of March 31, 2022, but excluding the following as of such date:

- 5,027,518 shares of our common stock issuable upon the exercise of options under our 2011 Equity Incentive Plan and 2015 Stock Incentive Plan, having a weighted average exercise price of \$3.87 per share, as of March 31, 2022;
- 485,000 shares of our common stock issuable upon the exercise of warrants having a weighted average exercise price of \$3.88 per share, as of March 31, 2022;
- 833,750 restricted stock units outstanding as of March 31, 2022, having a weighted average price of \$3.30 per share, under our 2015 Stock Incentive Plan; and
- an aggregate of 336,352 shares of our common stock reserved for future issuance as of March 31, 2022 under our 2015 Stock Incentive Plan.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks and uncertainties described below, together with all of the other information included in this prospectus supplement, the accompanying prospectus, and the information incorporated by reference herein and therein, including the risks described under the heading “Risk Factors” beginning on page 13 of our Annual Report, as well as in the other documents we file with the SEC.

If any of the risks described below, or incorporated by reference into this prospectus, 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 this Offering

You may experience immediate and substantial dilution in the book value of your investment.

The offering price per share in this offering may exceed the pro forma net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 9,765,625 shares of our common stock are sold at a price of \$2.56 per share, the last reported sale price of our common stock on the NYSE American on May 19, 2022, for aggregate gross proceeds of \$25.0 million, and after deducting commissions and estimated aggregate offering expenses payable by us, you will experience immediate dilution of \$2.01 per share, representing the difference between our pro forma as adjusted net tangible book value per share as of March 31, 2022 after giving effect to this offering and the assumed offering price. The exercise of outstanding stock options, warrants or the delivery of shares upon vesting of restricted stock units could result in further dilution of your investment.

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 continued product development, clinical studies, product commercialization, working capital and other general corporate purposes, including potential strategic acquisitions. 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.

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

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

Future sales of substantial amounts of our common stock, or the possibility that such sales could occur, could adversely affect the market price of our common stock.

We may issue up to \$25.0 million of our common stock from time to time in this offering. The issuance from time to time of shares of our common stock in this offering, as well as the fact that we have the ability to issue such shares in this offering, could have the effect of depressing the market price or increasing the market price volatility of our common stock.

It is not possible to predict the actual number of shares of our common stock we will sell under the Distribution Agreement, or the gross proceeds resulting from those sales.

Subject to certain limitations in the Distribution Agreement and compliance with applicable law, we have the discretion to deliver a placement notice to the Designated Agent at any time throughout the term of the Distribution Agreement. The number of shares of our common stock that are sold through the Designated Agent after delivering a placement notice will fluctuate based on a number of factors, including the market price of our common stock during the sales period, the limits we set with the Designated Agent in any applicable placement notice, and the demand for our common stock during the sales period. Because the price per share of each share sold will fluctuate during this offering, it is not currently possible to predict the number of shares that will be sold or the gross proceeds to be raised in connection with those sales.

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

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

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus supplement, the accompanying 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 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 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 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-4 of this prospectus and page 13 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 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 any significant revenue or achieve profitability;
- Our need to raise additional capital in the future;
- Our expectations to expand our product development, research and sales and marketing capabilities could give rise to difficulties in managing our growth;
- Our limited experience with direct sales and marketing;
- The material weaknesses in our internal control over financial reporting that we have identified;
- 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 cancer diagnostics market;
- Our reliance on third parties to manufacture and supply our intended products, and such manufacturers’ dependence on third party suppliers;
- Our dependence on third party distributors;
- Protection of our patents, intellectual property and trade secrets; and
- Business disruptions and economic and other uncertainties surrounding the COVID-19 pandemic.

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 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.

U SE OF PROCEEDS

We may issue and sell our common stock having aggregate gross proceeds of up to \$25.0 million from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We estimate that the net proceeds from the sale of our common stock that we are offering may be up to \$24.1 million, after deducting the Designated Agent's commissions and estimated offering expenses payable by us.

We currently anticipate that we will use the net proceeds received by us for continued product development, clinical studies, product commercialization, working capital and other general corporate purposes, including potential strategic acquisitions. 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, 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-4 of this prospectus supplement and page 13 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.

DESCRIPTION OF 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. For more information, see “*Where You Can Find More Information.*”

General

We may issue shares of our common stock from time to time. We are currently authorized to issue 100,000,000 shares of common stock, par value \$0.001 per share.

As of May 18, 2022, there were 53,846,973 shares of our common stock outstanding.

Common Stock

Our common stock is listed on the NYSE American and traded under the symbol “VNRX.” On May 19, 2022, the last reported sale price of our common stock on the NYSE American was \$2.56.

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.

The material terms of our common stock are further described under the heading “*Description of Capital Stock*” in the accompanying prospectus.

Holders

As of May 18, 2022, there were approximately 128 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.

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. Investors should not purchase our common stock with the expectation of receiving cash dividends.

DILUTION

If you invest in our common stock 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 after 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, 2022, we had a net tangible book value of \$10.6 million, or \$0.20 per share of common stock.

Investors purchasing in this offering will incur immediate and substantial dilution. After giving effect to the sale and issuance by us of our common stock in an amount equal to \$25.0 million at an assumed price of \$2.56 per share, the last reported sale price of our common stock on the NYSE American on May 19, 2022, and after deducting commissions to the Designated Agent and estimated offering expenses payable by us, our as-adjusted net tangible book value as of March 31, 2022 would have been approximately \$34.7 million, or approximately \$0.55 per share.

This amount represents an immediate increase in as-adjusted net tangible book value of \$0.35 per share to our existing stockholders and immediate dilution in as-adjusted net tangible book value of \$2.01 per share to new investors purchasing shares in this offering. We determine dilution by subtracting the as-adjusted net tangible book value per share after this offering from the assumed public offering price per share paid by an investor in this offering.

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

Assumed public offering price per share		\$ 2.56
Net tangible book value per share as of March 31, 2022	\$ 0.20	
Increase in as-adjusted net tangible book value per share attributable to this offering	\$ 0.35	
As-adjusted net tangible book value per share after this offering		\$ 0.55
Dilution per share to new investors purchasing in this offering		\$ 2.01

An increase of \$0.50 per share in the price at which the shares are sold from the assumed public offering price of \$2.56 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$25.0 million is sold at that price, would increase our as-adjusted net tangible book value per share after the offering to \$0.56 per share, and would increase the dilution per share to new investors purchasing in this offering to \$2.50 per share, after deducting commissions and estimated offering expenses payable by us. A decrease of \$0.50 per share in the price at which the shares are sold from the assumed public offering price of \$2.56 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$25.0 million is sold at that price, would decrease our as-adjusted net tangible book value per share after the offering to approximately \$0.53 per share, and would decrease the dilution per share to new investors purchasing shares in this offering to \$1.53 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only and may differ based on the actual offering price and the actual number of shares offered.

The above discussion and table are based on approximately 53,790,261 shares of our common stock outstanding as of March 31, 2022 and excludes the following:

- 5,027,518 shares of our common stock issuable upon the exercise of options under our 2011 Equity Incentive Plan and 2015 Stock Incentive Plan, having a weighted average exercise price of \$3.87 per share, as of March 31, 2022;
- 485,000 shares of our common stock issuable upon the exercise of warrants having a weighted average exercise price of \$3.88 per share, as of March 31, 2022;
- 833,750 restricted stock units outstanding as of March 31, 2022, having a weighted average price of \$3.30 per share, under our 2015 Stock Incentive Plan; and
- an aggregate of 336,352 shares of our common stock reserved for future issuance as of March 31, 2022 under our 2015 Stock Incentive Plan.

C CERTAIN U.S. FEDERAL TAX CONSIDERATIONS APPLICABLE TO HOLDERS OF COMMON STOCK

The following is a description of certain U.S. federal income and estate tax considerations related to the purchase, ownership and disposition of our common stock that are applicable to U.S. and non-U.S. holders (defined below).

This summary:

- is intended only as a summary and is based on the U.S. Internal Revenue Code of 1986, as amended, or the Code, U.S. federal tax regulations promulgated or proposed under it, or Treasury Regulations, judicial authority and published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or IRS, each as of the date of this prospectus and each of which are subject to change at any time, possibly with retroactive effect;
- is applicable only to holders who hold the shares as “capital assets” within the meaning of section 1221 of the Code;
- does not discuss the applicability of any U.S. state or local taxes, non-U.S. taxes or any other U.S. federal tax except for U.S. federal income tax;
- does not address tax consequences under the laws of any state, local, or foreign jurisdiction, or any tax treaties or conventions between the United States and foreign jurisdictions, federal estate or gift tax consequences, or tax consequences under sections 280G and 4999 of the Code;
- this discussion is based upon current law and interpretational authorities that are subject to change at any time. The company strongly urges participants to consult with their tax advisor concerning the tax consequences of making an investment in our common stock with respect to their personal tax circumstances; and
- does not address all aspects of U.S. federal income taxation that may be relevant to holders in light of their particular circumstances including alternative minimum tax considerations or who are subject to special treatment under U.S. federal income tax laws, including but not limited to:
 - certain former citizens and long-term residents of the United States;
 - banks, financial institutions, or “financial services entities”;
 - insurance companies;
 - tax-exempt organizations;
 - tax-qualified retirement and pension plans;
 - brokers, dealers or traders in securities, commodities or currencies;
 - persons subject to the alternative minimum tax;
 - persons that own or have owned more than 5% of our common stock;
 - persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
 - investors holding our common stock as part of a “straddle,” “hedge,” “conversion transaction,” or other risk-reduction transaction;
 - investors who are an integral part or controlled entities of a foreign sovereign, partnerships or other pass-through entities;
 - real estate investment trusts and regulated investment companies; and
 - “controlled foreign corporations” and “passive foreign investment companies.”

This description constitutes neither tax nor legal advice. Prospective investors are urged to consult their own tax advisors to determine the specific tax consequences and risks to them of purchasing, holding and disposing of our common stock, including the application to their particular situations of any U.S. federal, state, local and non-U.S. tax laws and of any applicable income tax treaty.

Certain U.S. Federal Income Tax Considerations Applicable to U.S. Holders

U.S. Holder Defined

For purposes of this discussion, a U.S. holder is a beneficial owner of our common stock that is a “U.S. person” for U.S. federal income tax purposes. A “U.S. person” is any of the following:

- a citizen or resident of the United States for U.S. federal income tax purposes;
- a corporation, or other entity taxable as a corporation for U.S. federal income tax purposes, that was created or organized in or under the laws of the United States or any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if (a) a court within the United States is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (b) the trust has a valid election in effect to be treated as a U.S. person.

If a partnership (or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) owns our common stock, then the U.S. federal income tax treatment of a partner in that partnership, including a partner that is a U.S. person, generally will depend on the status of the partner and the partnership’s activities. Partners and partnerships should consult their own tax advisors with regard to the U.S. federal income tax treatment of an investment in our common stock.

Distributions to U.S. Holders

Distributions of cash or property, if any, paid to a U.S. holder of our common stock will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions made on our common stock that are treated as dividends generally will be included in your income as ordinary dividend income. With respect to noncorporate taxpayers, such dividends are generally taxed at reduced rates provided certain holding period requirements are satisfied.

Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a holder’s adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described under the section titled “—*Sale or Taxable Disposition of Common Stock by U.S. Holders*” below.

Sale or Taxable Disposition of Common Stock by U.S. Holders

Upon the sale, exchange or disposition of our common stock, you generally will recognize capital gain or loss equal to the difference between (i) the amount of cash and the fair market value of any property received upon the sale or exchange and (ii) your adjusted tax basis in the common stock. Such capital gain or loss will be long-term capital gain or loss if your holding period in the common stock is more than one year at the time of the sale, exchange or disposition. Long-term capital gains recognized by certain noncorporate taxpayers will generally be subject to reduced rates of U.S. federal income tax. The deductibility of capital losses is subject to limitations.

Medicare Contributions Tax

Certain U.S. holders who are individuals, estates or certain trusts must pay a 3.8% tax on the U.S. person’s “net investment income.” Net investment income generally includes, among other things, dividend income and net gains from the disposition of our common stock. A U.S. holder that is an individual, estate or trust should consult its tax advisor regarding the applicability of the Medicare tax to its income and gains in respect of its investment in our common stock.

Certain U.S. Federal Income Tax Considerations Applicable to Non-U.S. Holders

Non-U.S. Holder Defined

For purposes of this discussion, a non-U.S. holder is a beneficial owner of our common stock that is not a “U.S. holder” (as defined under the section titled “*U.S. Holder Defined*” above).

If a partnership (or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) owns our common stock, then the U.S. federal income tax treatment of a partner, including a partner that is a non-U.S. person, in that partnership generally will depend on the status of the partner and the partnership’s activities. Partners and partnerships should consult their own tax advisors with regard to the U.S. federal income tax treatment of an investment in our common stock.

Distributions to Non-U.S. Holders

Distributions of cash or property, if any, paid to a non-U.S. holder of our common stock will constitute “dividends” for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. If the amount of a distribution exceeds both our current and accumulated earnings and profits, such excess will first constitute a nontaxable return of capital, which will reduce the holder’s tax basis in our common stock, but not below zero. Any excess will be treated as gain from the sale of our common stock and will be treated as described under the section titled “*Sale or Taxable Disposition of Common Stock by Non-U.S. Holders*” below.

Subject to the following paragraphs, dividends on our common stock generally will be subject to U.S. federal withholding tax at a 30% gross rate, subject to any exemption or lower rate as may be specified by an applicable income tax treaty. We may withhold up to 30% of either (i) the gross amount of the entire distribution, even if the amount of the distribution is greater than the amount constituting a dividend, as described above, or (ii) the amount of the distribution we project will be a dividend, based upon a reasonable estimate of both our current and our accumulated earnings and profits for the taxable year in which the distribution is made. If tax is withheld on the amount of a distribution in excess of the amount constituting a dividend, then you may obtain a refund of that excess amount by timely filing a claim for refund with the IRS. Any such distributions will also be subject to the discussion below under the section titled “*Foreign Account Tax Compliance Act Considerations*.”

To claim the benefit of a reduced rate of or an exemption from U.S. federal withholding tax under an applicable income tax treaty, a non-U.S. holder will be required (i) to satisfy certain certification requirements, which may be made by providing us or our agent with a properly executed and completed IRS Form W-8BEN (for individuals) or W-8BEN-E (for entities) certifying, under penalty of perjury, that the holder qualifies for treaty benefits and is not a U.S. person, or (ii) if our common stock is held through certain non-U.S. intermediaries, to satisfy the relevant certification requirements of the applicable Treasury Regulations. Special certification and other requirements apply to certain non-U.S. holders that are pass-through entities. Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under an applicable income tax treaty.

Dividends that are effectively connected with the conduct of a trade or business by the non-U.S. holder within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment, or a fixed base in the case of an individual non-U.S. holder, that is maintained by the non-U.S. holder in the United States) (“effectively connected dividends”) are not subject to the U.S. federal withholding tax, provided that the non-U.S. holder certifies, under penalty of perjury, that the dividends paid to such holder are effectively connected dividends on a properly executed and completed IRS Form W-8ECI (or other applicable form). Instead, any such dividends will be subject to U.S. federal income tax on a net income basis in a manner similar to that which would apply if the non-U.S. holder were a U.S. person.

Corporate non-U.S. holders who receive effectively connected dividends may also be subject to an additional “branch profits tax” at a gross rate of 30% on their earnings and profits for the taxable year that are effectively connected with the holder’s conduct of a trade or business within the United States, subject to any exemption or reduction provided by an applicable income tax treaty.

Sale or Taxable Disposition of Common Stock by Non-U.S. Holders

Any gain realized on the sale, exchange or other taxable disposition of our common stock generally will not be subject to U.S. federal income tax unless:

- the gain is effectively connected with the conduct of a trade or business by the non-U.S. holder within the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment, or fixed base in the case of an individual non-U.S. holder, that is maintained by the non-U.S. holder in the United States);
- the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are met; or
- we are or have been a “United States real property holding corporation” for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of such disposition and the non-U.S. holder’s holding period in our common stock.

A non-U.S. holder described in the first or second bullet point above generally will be subject to U.S. federal income tax on the net gain derived from the sale or disposition under regular graduated U.S. federal income tax rates as if the holder were a U.S. person. If the non-U.S. holder is a corporation, then the gain may also, under certain circumstances, be subject to the “branch profits” tax, which was discussed above.

With respect to the third bullet point, although there can be no assurance, we believe we are not, have not been and will not become a “United States real property holding corporation” for U.S. federal income tax purposes. In the event that we are or become a United States real property holding corporation at any time during the applicable period described in the third bullet point above, any gain recognized on a sale or other taxable disposition of our common stock may be subject to U.S. federal income tax, including any applicable withholding tax, if (i) the non-U.S. holder beneficially owns, or has owned, more than 5% of our common stock at any time during the applicable period, or (ii) our common stock ceases to be regularly traded on an “established securities market” within the meaning of the Code. Non-U.S. holders who intend to acquire more than 5% of our common stock are encouraged to consult their tax advisors with respect to the U.S. tax consequences of a disposition of our common stock.

Any proceeds from the disposition of our common stock will also be subject to the discussion below under the section titled *Foreign Account Tax Compliance Act Considerations*.”

Federal Estate Tax

Common stock owned or treated as owned by an individual who is a non-U.S. holder at the time of his or her death generally will be included in the individual’s gross estate for U.S. federal estate tax purposes and may be subject to U.S. federal estate tax unless an applicable estate tax treaty provides otherwise.

Information Reporting and Backup Withholding

Information returns will be filed with the IRS in connection with payments of dividends on our common stock and the proceeds from a sale or other disposition of our common stock. Copies of information returns may be made available to the tax authorities of the country in which a non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

You may be subject to backup withholding with respect to dividends paid on our common stock or with respect to proceeds received from a disposition of the shares of our common stock. Certain holders (including, among others, corporations and certain tax-exempt organizations) are generally not subject to backup withholding. You will be subject to backup withholding if you are not otherwise exempt and you:

- fail to furnish your taxpayer identification number, or TIN, which, for an individual, is ordinarily his or her social security number;
- furnish an incorrect TIN;
- are notified by the IRS that you have failed to properly report payments of interest or dividends; or
- fail to certify, under penalties of perjury, that you have furnished a correct TIN and that the IRS has not notified you that you are subject to backup withholding.

Backup withholding is not an additional tax, but rather is a method of tax collection. You generally will be entitled to credit any amounts withheld under the backup withholding rules against your U.S. federal income tax liability provided that the required information is furnished to the IRS in a timely manner.

A non-U.S. holder may have to comply with certification procedures to establish that it is not a U.S. person in order to avoid information reporting and backup withholding tax requirements. The certification procedures required to claim a reduced rate of withholding under an income tax treaty will satisfy the certification requirements necessary to avoid backup withholding as well. The amount of any backup withholding from a payment to a non-U.S. holder may be allowed as a credit against such holder's U.S. federal income tax liability and may entitle such non-U.S. holder to a refund, provided that the required information is timely furnished to the IRS.

Foreign Account Tax Compliance Act Considerations

The Foreign Account Tax Compliance Act, or FATCA, generally imposes a U.S. federal withholding tax at a rate of 30% on payments of dividends on, and gross proceeds from the sale or other disposition of, our common stock if paid to a foreign entity unless (i) if the foreign entity is a "foreign financial institution," the foreign entity must enter into an agreement with the IRS or, in the case of a foreign financial institution in a jurisdiction that has entered into an intergovernmental agreement with the United States, comply with the requirements of such agreement and undertake certain due diligence, reporting, withholding, and certain certification obligations, (ii) if the foreign entity is not a "foreign financial institution," the foreign entity identifies certain of its U.S. investors, if any, or (iii) the foreign entity is otherwise exempt under FATCA. Proposed Treasury regulations have been issued that would eliminate withholding on payments of gross proceeds (but not on payments of dividends). Pursuant to the preamble to the proposed Treasury regulations, we and any withholding agent may (but are not required to) rely on this proposed change to FATCA withholding until the final regulations are issued or the proposed regulations are withdrawn. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

We will not pay any additional amounts to non-U.S. holders in respect of any amounts withheld, including pursuant to FATCA. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of the tax. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Non-U.S. holders should consult their own tax advisors regarding the possible implications of these rules on their investment in our common stock and the entities through which they hold our common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30% withholding tax under FATCA.

PLAN OF DISTRIBUTION

We have entered into the Distribution Agreement with Jefferies as our designated agent and/or principal, under which we may offer and sell up to \$25.0 million of our common stock from time to time. Sales of our common stock under the Distribution Agreement, if any, may be made in sales deemed to be “at the market” offerings as defined in Rule 415 of the Securities Act or in privately negotiated transactions. The Designated Agent is not required to sell any specific amount, but will use commercially reasonable efforts to sell on our behalf all of our common stock requested to be sold by us, consistent with their normal trading and sales practices, under the terms and subject to the conditions set forth in the Distribution Agreement. We may instruct the Designated Agent not to sell our common stock if the sales cannot be effected at or above the price designated by us in any instruction or placement notice we deliver to the Designated Agent. We or the Designated Agent may suspend the offering of our common stock upon delivering notice and subject to other conditions, as further described in the Distribution Agreement.

The Designated Agent will provide written confirmation to us following the close of trading on the NYSE American each day in which our shares are sold under the Distribution Agreement by the Designated Agent. Each such confirmation will include the number of shares of common stock sold on such day, the net proceeds to us, the compensation payable by us to the Designated Agent in connection with the sales of such common stock, and the additional expenses deducted from the net proceeds payable to us.

We will pay the Designated Agent commissions for its services in acting as our agents or principals in the sale of our common stock. The Designated Agent will be entitled to compensation at a fixed commission rate of 3.0% of the gross sales price of all of our common stock sold through it as designated agent under the Distribution Agreement. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We estimate that the total expenses for the offering, excluding the Designated Agent’s 3.0% commission, will be approximately \$175,500, which includes the reimbursement to the Designated Agent for the reasonable out-of-pocket fees and disbursements of its legal counsel in an amount not to exceed \$50,000 in the aggregate in connection with the execution of the Distribution Agreement and the initial bringdown. Additionally, the Company has agreed to reimburse the Designated Agent for the reasonable out-of-pocket fees and disbursements of its legal counsel in an amount not to exceed \$15,000 in connection with each subsequent bringdown.

Settlement for sales of our common stock will occur on the second business day following the date on which any sales are made, or on such other date as is agreed upon by us and the Designated Agent in connection with a particular transaction, in return for payment of the net proceeds to us. Settlement for all shares of our common stock shall be effected by book-entry delivery of the shares of our common stock to the Designated Agent’s account at The Depository Trust Company against payments by the Designated Agent of the net proceeds from the sale of such shares of our common stock in same day funds delivered to an account designated by us.

We will report at least quarterly the number of shares of common stock sold through the Designated Agent under the Distribution Agreement, the net proceeds to us and the compensation paid by us to the Designated Agent in connection with the sales of our common stock.

In connection with the sale of our common stock on our behalf, the Designated Agent will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of the Designated Agent will be deemed to be underwriting commissions or discounts. We have agreed to indemnify the Designated Agent against specified liabilities, including liabilities under the Securities Act, or to contribute to payments that the Designated Agent may be required to make because of those liabilities.

The offering of shares of our common stock pursuant to the Distribution Agreement will terminate upon the earlier of (1) the sale of all shares subject to the Distribution Agreement, or (2) termination of the Distribution Agreement pursuant to its terms. The Distribution Agreement may be terminated by the Designated Agent or as further described in the Distribution Agreement.

This summary of the material provisions of the Distribution Agreement does not purport to be a complete statement of its terms and conditions. A copy of the Distribution Agreement is filed as an exhibit to a report filed under the Exchange Act with the SEC and is incorporated by reference into this prospectus supplement and the accompanying prospectus.

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

To the extent required by Regulation M, the Designated Agent will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus supplement.

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

L EGAL MATTERS

Certain legal matters relating to this offering will be passed upon for the Company by Stradling Yocca Carlson & Rauth, a Professional Corporation, Newport Beach, California. Certain legal matters relating to this offering will be passed upon for the Designated Agent by Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo, P.C., New York, New York.

EXPERTS

The consolidated financial statements of VolitionRx Limited as of December 31, 2021 and 2020 and for each of the years in the two-year period ended December 31, 2021, 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 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.

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 and the date on which the offering of the securities 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, 2021, as filed with the SEC on March 30, 2022;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2022, as filed with the SEC on May 11, 2022;
- our Definitive Proxy Statement on Schedule 14A, as filed with the SEC on April 28, 2022 (to the extent incorporated by reference into Part III of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021);
- our Current Report on Form 8-K as filed with the SEC on March 29, 2022; 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.

These filings have not been included in or delivered with this prospectus. 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 the documents that this prospectus incorporates. 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 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 Designated Agents 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, 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.

W HERE 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 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. NucleosomicsTM, 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, including potential strategic acquisitions.

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.

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 warrants being 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 warrants.

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 reallocated 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.

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.

Up to \$25,000,000



Common Stock

PROSPECTUS SUPPLEMENT

Jefferies

May 20, 2022
