
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**AMENDMENT NO. 1
TO
FORM S-3**

**REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

VOLITIONRX LIMITED

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

91-1949078

(I.R.S. Employer
Identification No.)

**1 Scotts Road
#24-05 Shaw Centre
Singapore 228208
+1 (646) 650-1351**

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

**Agents and Corporations, Inc.
1201 Orange Street, Suite 600
Wilmington, DE 19801**

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

Copies to:

**Marc G. Alser, Esq.
Stradling Yocca Carlson & Rauth, P.C.
660 Newport Center Drive, Suite 1600
Newport Beach, California 92660
(949) 725-4000**

From time to time after this Registration Statement becomes effective.

(Approximate date of commencement of proposed sale to the public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. []

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. [X]

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. []

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. []

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

Large accelerated filer []

Accelerated filer []

Non-accelerated filer [] (Do not check if a smaller reporting company)

Smaller reporting company [X]

Emerging growth company []

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

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SEC, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

EXPLANATORY NOTE

This registration statement contains two prospectuses:

- a base prospectus, which covers the offering, issuance and sale of up to \$100,000,000 of our common stock, warrants and units; and
- a prospectus relating to the offer and sale of up to \$10,000,000 of our common stock pursuant to an equity distribution agreement with Oppenheimer & Co. Inc., which amounts to less than one-third of the public float of our common stock as of September 25, 2018, as calculated in accordance with General Instruction I.B.6. on Form S-3.

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus. The prospectus with respect to the equity distribution agreement immediately follows the base prospectus. The shares of common stock that may be offered, issued and sold under that prospectus are included in the \$100,000,000 of securities that may be offered, issued and sold by us under the base prospectus. Upon termination of the equity distribution agreement, any portion of the \$10,000,000 included in the prospectus that is not sold pursuant to the equity distribution agreement will be available for sale in other offerings pursuant to the base prospectus.

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

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION, DATED SEPTEMBER 26, 2018

\$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 24, 2018, the last reported sale price of our common stock on the NYSE American market was \$2.37 per share.

As of the date of this prospectus, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately \$71,548,670, based on 35,031,225 shares of outstanding common stock, of which approximately 5,946,400 shares were held by affiliates, and a price of \$2.46 per share, which was the highest reported closing sale price of our common stock on the NYSE American market in the 60 days prior to September 25, 2018. We have not offered any securities pursuant to General Instruction I.B.6. of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus. Pursuant to General Instruction I.B.6. of Form S-3, in no event will we sell securities registered on this registration statement in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75 million.

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 _____, 2018

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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 prospects may have changed since those respective dates.

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

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

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

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

Unless we state otherwise or the context indicates otherwise, references to the “Company”, “VolitionRx”, “we”, “us”, and “our” in this prospectus refer to VolitionRx Limited and its subsidiaries. Our fiscal year ends on December 31 of each calendar year. Nucleosomics[®], NuQ[®], Nu.Q[™] and Hypergenomics[®] 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 life sciences company developing simple, easy to use, cost effective blood tests to help diagnose a range of cancers. Our 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. The principle behind what we are doing relies on bringing together two main lines of research: the chromosomes of cancer cells differ from those of healthy cells – both in terms of DNA sequence (due to genetic cancer mutations) and in protein structure – due to epigenetic changes. There are chromosome fragments from dead cancer cells circulating in the blood as nucleosomes. Each such circulating nucleosome contains a small (approx. 140bp) fragment of tumor DNA. Our Nucleosomics[®] technology exploits the different compositions of circulating nucleosome structures present in the serum of cancer patients to detect and identify cancer diseases.

We are developing a novel suite of blood assays for epigenetically altered circulating nucleosomes as biomarkers in cancer. Nu.Q[™] products are simple, low-cost, ELISA platform tests and can incorporate other off patent, low cost ELISA tests in our panels (e.g. CEA, PSA, and CA125) for higher accuracy.

We have incurred losses since inception, have negative cash flows from operations, and currently have no revenues, and we do not anticipate earning significant revenues until such time as we are able to fully market our intended products. For these reasons, our auditors stated in their report on our most recent audited financial statements 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. See Item 8. Financial Statements and Supplementary Data of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, or our Annual Report, for a discussion of our ability to continue as a going concern. Our ability to continue as a going concern is dependent upon our ability to successfully accomplish our plan of operations described herein, obtain financing and eventually attain profitable operations.

Corporate Information

We are a Delaware corporation. Our executive offices are located at 1 Scotts Road, #24-05 Shaw Centre, Singapore 228208, and our telephone number is +1 (646) 650-1351. We maintain a website at www.volitionrx.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.volitionrx.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 working capital and other general corporate purposes.

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

GENERAL DESCRIPTION OF SECURITIES

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

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

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

DESCRIPTION OF CAPITAL STOCK

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

Common Stock

We have authority under our second amended and restated certificate of incorporation to issue up to 100,000,000 shares of our common stock, par value \$0.001 per share. As of August 31, 2018, there were 35,031,225 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

As of August 10, 2018, Cotterford Company Limited, or Cotterford, is entitled to contractual rights that require us to register 10,000,000 shares of our common stock, including shares of our common stock issuable upon exercise of warrants, under the Securities Act, subject to certain exceptions. 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 (as such term is defined in the Cotterford Agreement), the date such registrable securities may be resold without volume or manner-of-sale limitations pursuant to Rule 144 under the Securities Act, or August 10, 2021.

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 24, 2018, the last reported sale price for our common stock on the NYSE American market was \$2.37 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:

- Ⓢ through agents;
- Ⓢ to or through underwriters;
- Ⓢ to or through broker-dealers (acting as agent or principal);
- Ⓢ 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, 2017 and 2016 and for each of the years in the two-year period ended December 31, 2017 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 1, 2018 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:

- ① our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as filed with the SEC on March 1, 2018;
- ① our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2018 and June 30, 2018, as filed with the SEC on May 10, 2018 and August 13, 2018, respectively;
- ① our Current Reports on Form 8-K as filed with the SEC on each of March 12, 2018, August 9, 2018 and September 11, 2018; and
- ① the description of our common stock contained in our registration statement on Form 8-A, filed with the SEC on February 3, 2015, including any amendment or report 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 Rootsart, our Corporate Secretary at c/o Corporate Secretary, VolitionRx Limited, 1 Scotts Road, #24-05 Shaw Centre, Singapore, 228208, by telephone at +1 (646) 650-1351 or by email at notice@volitionrx.com. These documents are also available free of charge through the investors section on our website at <http://www.volitionrx.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 prospects may have changed since those respective dates.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC relating to the securities offered by this prospectus. As permitted by the SEC rules and regulations, this prospectus and any accompanying prospectus supplement that we may file, which form a part of the registration statement, do not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance reference is made to the copy of such contract or other document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference. For further information with respect to us and the common stock, the warrants and the units offered hereby, reference is made to such registration statement, exhibits and schedules.

We are subject to the information and periodic reporting requirements of the Exchange Act, and in accordance therewith file periodic reports, current reports, proxy statements and other information with the SEC. Such periodic reports, current reports, proxy statements, other information and a copy of the registration statement on Form S-3 may be inspected by anyone without charge and copies of these materials may be obtained upon the payment of the fees prescribed by the SEC, at the Public Reference Room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The registration statement on Form S-3 and the periodic reports, current reports, proxy statements and other information filed by us are also available through the SEC's website at <http://www.sec.gov>.

\$100,000,000



VOLITIONRX LIMITED

**Common Stock
Warrants
Units**

PROSPECTUS

[_____], 2018

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

SUBJECT TO COMPLETION, DATED SEPTEMBER 26, 2018

Registration No. 333-227248

**PROSPECTUS
(To Prospectus dated , 2018)**

Up to \$10,000,000



**VOLITIONRX LIMITED
Common Stock**

We have entered into an Equity Distribution Agreement, dated September 7, 2018, or the Distribution Agreement, with Oppenheimer & Co. Inc., or Oppenheimer, relating to our common stock offered by this 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 \$10,000,000 from time to time through Oppenheimer acting as our agent and/or principal.

Our common stock is listed on the NYSE American market and traded under the symbol “VNRX.” On September 24, 2018, the last reported sale price of our common stock as reported on the NYSE American market was \$2.37 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 promulgated under the Securities Act of 1933, as amended, or the Securities Act. Oppenheimer, as sales 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 Oppenheimer and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Oppenheimer will be entitled to compensation at a fixed commission rate of up to 2.5 % of the gross sales price per share sold through it as sales agent under the Distribution Agreement. In connection with the sale of our common stock on our behalf, Oppenheimer will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of Oppenheimer will be deemed to be underwriting commissions. We have also agreed to provide rights of indemnification and contribution to Oppenheimer with respect to certain liabilities, including liabilities under the Securities Act.

As of the date of this prospectus, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately \$71,548,670, based on 35,031,225 shares of outstanding common stock, of which 5,946,400 shares are held by affiliates, and a price of \$2.46 per share, which was the highest reported closing sale price of our common stock as quoted on the NYSE American market in the 60 days prior to September 25, 2018. During the 12 calendar months prior to, and including, the date of this prospectus, we have not sold any securities pursuant to General Instruction I.B.6. of Form S-3.

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-6 OF THIS PROSPECTUS AND PAGE 9 OF OUR ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017, 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.

Oppenheimer & Co.

The date of this prospectus is _____, 2018.

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ABOUT THIS PROSPECTUS

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

Before you invest, you should carefully read this prospectus, all information incorporated by reference herein, 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 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 and the accompanying prospectus, you should rely on information contained in this prospectus, 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, any document incorporated by reference herein, or any free writing prospectuses we may provide to you in connection with this offering. Neither we nor Oppenheimer has 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.

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 does 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 it relates, nor does this 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, including the documents incorporated by reference herein, includes 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-6 of this prospectus and page 9 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, 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 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 “Special 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, 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.”

Unless we state otherwise or the context indicates otherwise, references to the “Company”, “VolitionRx”, “we”, “us”, and “our” in this prospectus refer to VolitionRx Limited and its subsidiaries. Our fiscal year ends on December 31 of each calendar year.

Nucleosomics[®], NuQ[®], Nu.Q[™] and Hypergenomics[®] 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 prospectus supplement summary discusses the key aspects of the offering and highlights certain information appearing elsewhere in this prospectus and in the documents we incorporate by reference herein. 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, including the information provided under the headings (i) "Risk Factors" in this 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 and the accompanying prospectus.

Overview

We are a multi-national life sciences company developing simple, easy to use, cost-effective blood tests to help diagnose a range of cancers. Our 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. The principle behind what we are doing relies on bringing together two main lines of research: the chromosomes of cancer cells differ from those of healthy cells – both in terms of DNA sequence (due to genetic cancer mutations) and in protein structure - due to epigenetic changes. There are chromosome fragments from dead cancer cells circulating in the blood as nucleosomes. Each such circulating nucleosome contains a small (approx. 140bp) fragment of tumor DNA. Our Nucleosomics[®] technology exploits the different compositions of circulating nucleosome structures present in the serum of cancer patients to detect and identify cancer diseases.

We are developing a novel suite of blood assays for epigenetically-altered circulating nucleosomes as biomarkers in cancer. Nu.Q[™] products are simple, low-cost, ELISA platform tests and can incorporate other off patent, low cost ELISA tests in our panels (e.g., CEA, PSA, and CA125) for higher accuracy.

We have incurred losses since inception, have negative cash flows from operations, and currently have no revenues, and we do not anticipate earning significant revenues until such time as we are able to fully market our intended products. For these reasons, our auditors stated in their report on our most recent audited financial statements 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. See Item 8. Financial Statements and Supplementary Data of our Annual Report for a discussion of our ability to continue as a going concern. Our ability to continue as a going concern is dependent upon our ability to successfully accomplish our plan of operations described herein, obtain financing and eventually attain profitable operations.

Corporate Information

We are a Delaware corporation. Our executive offices are located at 1 Scotts Road, #24-05 Shaw Centre, Singapore 228208, and our telephone number is +1 (646) 650-1351. We maintain a website at www.volitionrx.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.volitionrx.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 \$10.0 million.
Common Stock to be outstanding after this offering	Up to 34,250,634 shares of common stock, assuming sales of 4,219,409 shares of our common stock in this offering at an offering price of \$2.37 per share, which was the last reported sale price of our common stock on the NYSE American market on September 24, 2018. 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 Oppenheimer, acting as sales agent or principal. See “Plan of Distribution” on page S-18.
Use of proceeds:	We intend to use the net proceeds from this offering for working capital and other general corporate purposes. See “Use of Proceeds” on page S-9.
Risk factors:	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-6 of this prospectus and page 9 of our Annual Report, as well as the risks and uncertainties described in the other documents we file with the SEC.
NYSE American market 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 30,031,225 shares of our common stock outstanding as of June 30, 2018, but excluding the following as of such date:

- ⌚ 3,598,967 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 \$4.04 per share, as of June 30, 2018;
- ⌚ 1,701,930 shares of our common stock issuable upon the exercise of warrants having a weighted average exercise price of \$2.37 per share, as of June 30, 2018;
- ⌚ 5,000,000 shares of our common stock plus 5,000,000 shares of our common stock issuable upon the exercise of warrants granted on August 10, 2018, having an exercise price of \$3.00 per share; and
- ⌚ an aggregate of 814,000 shares of our common stock reserved for future issuance as of September 26, 2018 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, and the information incorporated by reference herein, including the risks described under the heading “Risk Factors” beginning on page 9 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 “Special 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 4,219,409 shares of our common stock are sold at a price of \$2.37 per share, the last reported sale price of our common stock on the NYSE American market on September 24, 2018, for aggregate gross proceeds of \$10.0 million, and after deducting commissions and estimated aggregate offering expenses payable by us, you will experience immediate dilution of \$1.81 per share, representing the difference between our pro forma as adjusted net tangible book value per share as of June 30, 2018 after giving effect to this offering and the assumed offering price. The exercise of outstanding stock options or warrants 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 working capital and other general corporate purposes. However, our use of these proceeds may differ substantially from our current plans. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our stock price to decline.

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

In order to raise additional capital, 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 \$10.0 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 Oppenheimer at any time throughout the term of the Distribution Agreement. The number of shares of our common stock that are sold through Oppenheimer 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 Oppenheimer 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 will be sold in “at the market” offerings, and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares in this offering at different times will likely pay different prices, and 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.

SPECIAL NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus contains “forward-looking statements” within the meaning of the federal securities laws, which statements are subject to considerable risks and uncertainties. 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 included or incorporated by reference in this prospectus, other than statements of historical fact, are forward-looking statements. You can identify forward-looking statements by the use of words such as “may,” “will,” “could,” “anticipate,” “expect,” “intend,” “believe,” “continue” or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to such statements. In particular, forward-looking statements contained in this 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.

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-6 of this prospectus and page 9 of our Annual Report, as well as those described in the other documents we file with the SEC. You should read this prospectus, and the documents incorporated by reference herein, completely and with the understanding that our actual future results may be materially different from and worse than what we expect.

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.

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 market, 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. See the information included under the heading “Where You Can Find More Information.”

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

USE OF PROCEEDS

We may issue and sell our common stock having aggregate gross proceeds of up to \$10.0 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 \$9.6 million, after deducting Oppenheimer's commission 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. 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-6 of this prospectus and page 9 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

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 August 31, 2018, there were 35,031,225 shares of our common stock outstanding.

Common Stock

Our common stock is listed on the NYSE American market and traded under the symbol “VNRX.” On September 24, 2018, the last reported sale price of our common stock on the NYSE American market was \$2.37.

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

Price Range of Common Stock

The following table sets forth, for the periods indicated, the high and low intraday sale prices of our common stock as reported by the NYSE American market.

	Price Range	
	High	Low
<u>Year Ended December 31, 2018:</u>		
First Quarter	\$ 4.00	\$ 2.20
Second Quarter	\$ 2.49	\$ 1.85
Third Quarter (through September 25, 2018)	\$ 2.49	\$ 1.44
<u>Year Ended December 31, 2017:</u>		
First Quarter	\$ 5.45	\$ 4.00
Second Quarter	\$ 4.20	\$ 2.92
Third Quarter	\$ 3.59	\$ 2.45
Fourth Quarter	\$ 3.75	\$ 2.08
<u>Year Ended December 31, 2016:</u>		
First Quarter	\$ 4.43	\$ 3.20
Second Quarter	\$ 4.19	\$ 3.05
Third Quarter	\$ 5.86	\$ 3.05
Fourth Quarter	\$ 5.39	\$ 3.75

Holders

As of August 31, 2018, there were approximately 166 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 never declared or paid any cash dividends on our common stock. We have no current plans to declare or pay any dividends and intend to retain all of our future earnings, if any, generated by our operations for the development and growth of our business. Any future decision to pay dividends will be made by our board of directors in its sole discretion and will depend upon our results of operations, financial condition, capital requirements and other factors that our board of directors deems relevant in its informed business judgment.

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 and the as-adjusted net tangible book value per share after this offering. As of June 30, 2018, our net tangible book value was \$9.6 million, or \$0.32 per share. Net tangible book value per share represents our total tangible assets less our total liabilities (excluding deferred revenue), divided by the number of shares outstanding.

After giving effect to the sale of our common stock in an amount equal to \$10.0 million at an assumed price of \$2.37 per share, the last reported sale price of our common stock on the NYSE American market on September 24, 2018, and after deducting commissions to Oppenheimer and estimated offering expenses payable by us, our as-adjusted net tangible book value as of June 30, 2018 would have been \$19.1 million, or \$0.56 per share.

This amount represents an immediate increase in net tangible book value of \$0.24 per share to our existing stockholders and immediate dilution in net tangible book value of \$1.76 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 price per share paid by an investor in this offering.

The following table illustrates this dilution.

Assumed public offering price per share		\$	2.37
Net tangible book value per share as of June 30, 2018	\$	0.32	
Increase in net tangible book value per share attributable to this offering		<u>0.24</u>	
As adjusted net tangible book value per share after this offering		\$	<u>0.56</u>
Dilution per share to new investors in this offering		\$	1.81

An increase of \$0.50 per share in the price at which the shares are sold from the assumed offering price of \$2.37 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$10.0 million is sold at that price, would increase our adjusted net tangible book value per share after the offering to \$0.57 per share, and would increase the dilution in net tangible book value per share to new investors in this offering to \$2.30 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 offering price of \$2.37 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$10.0 million is sold at that price, would decrease our adjusted net tangible book value per share after the offering to \$0.54 per share, and would decrease the dilution in net tangible book value per share to new investors in this offering to \$1.33 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 30,031,225 shares of our common stock outstanding as of June 30, 2018 and excludes the following:

- ⌚ 3,598,967 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 \$4.04 per share, as of June 30, 2018;
- ⌚ 1,701,930 shares of our common stock issuable upon the exercise of warrants having a weighted average exercise price of \$2.37 per share, as of June 30, 2018;
- ⌚ 5,000,000 shares of our common stock plus 5,000,000 shares of our common stock issuable upon the exercise of warrants granted on August 10, 2018, having an exercise price of \$3.00 per share; and
- ⌚ an aggregate of 814,000 shares of our common stock reserved for future issuance as of September 26, 2018 under our 2015 Stock Incentive Plan.

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:

- ① 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;
- ① is applicable only to holders who hold the shares as “capital assets” within the meaning of section 1221 of the Code;
- ① 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;
- ① 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;
- ① 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
- ① 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:
 - ① certain former citizens and long-term residents of the United States;
 - ① banks, financial institutions, or “financial services entities”;
 - ① insurance companies;
 - ① tax-exempt organizations;
 - ① tax-qualified retirement and pension plans;
 - ① brokers, dealers or traders in securities, commodities or currencies;
 - ① persons subject to the alternative minimum tax;
 - ① persons that own or have owned more than 5% of our common stock;
 - ① persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
 - ① investors holding our common stock as part of a “straddle,” “hedge,” “conversion transaction,” or other risk-reduction transaction;
 - ① investors who are an integral part or controlled entities of a foreign sovereign, partnerships or other pass-through entities;
 - ① real estate investment trusts and regulated investment companies; and
 - ① “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:

- ① a citizen or resident of the United States for U.S. federal income tax purposes;
- ① 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;
- ① an estate the income of which is subject to U.S. federal income tax regardless of its source; or
- ① 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.

Under applicable U.S. Treasury Regulations, withholding under FATCA applies to payments of dividends on our common stock and to payments of gross proceeds from a sale or other disposition of our common stock made after December 31, 2016. 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 Oppenheimer as our sales agent and/or principal, which we have filed as an exhibit to the registration statement of which this prospectus forms a part. The Distribution Agreement is incorporated by reference in this prospectus. Sales of our common stock, if any, may be made in sales deemed to be “at the market” offerings as defined in Rule 415 of the Securities Act. Oppenheimer 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 its normal trading and sales practices, under the terms and subject to the conditions set forth in the Distribution Agreement. We may instruct Oppenheimer 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 Oppenheimer. We or Oppenheimer may suspend the offering of our common stock upon delivering notice and subject to other conditions, as further described in the Distribution Agreement.

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

We will pay Oppenheimer commissions for its services in acting as agent and/or principal in the sale of our common stock. Oppenheimer will be entitled to compensation at a fixed commission rate of up to 2.5% of the gross sales price of all of our common stock sold through it as sales agent under the Distribution Agreement. We estimate that the total expenses for the offering, excluding compensation payable to Oppenheimer under the terms of the Distribution Agreement, will be approximately \$150,000, which includes the reimbursement to Oppenheimer for the reasonable out-of-pocket fees and disbursements of its legal counsel in an amount not to exceed \$40,000.

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 Oppenheimer 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 Oppenheimer’s account at The Depository Trust Company against payments by Oppenheimer 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 Oppenheimer, as sales agent, under the Distribution Agreement, the net proceeds to us and the compensation paid by us to Oppenheimer in connection with the sales of our common stock.

Oppenheimer and its affiliates have provided, and may in the future provide, various investment banking, commercial banking, fiduciary and advisory services for us from time to time for which they have received, and may in the future receive, customary fees and expenses. Oppenheimer and its affiliates may, from time to time, engage in other transactions with and perform services for us in the ordinary course of their business.

In connection with the sale of our common stock on our behalf, Oppenheimer will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of Oppenheimer will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Oppenheimer against specified liabilities, including liabilities under the Securities Act, or to contribute to payments that Oppenheimer 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. The Distribution Agreement may be terminated by Oppenheimer or as further described in the Distribution Agreement.

LEGAL MATTERS

Certain legal matters relating to this offering will be passed upon for us by Stradling Yocca Carlson & Rauth, P.C., Newport Beach, California. Certain legal matters relating to this offering will be passed upon for Oppenheimer 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, 2017 and 2016 and for each of the years in the two-year period ended December 31, 2017, 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. 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 documents that we file 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, 2017, as filed with the SEC on March 1, 2018;
- ⌚ our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2018 and June 30, 2018, as filed with the SEC on May 10, 2018 and August 13, 2018, respectively;
- ⌚ our Current Reports on Form 8-K as filed with the SEC on each of March 12, 2018, August 9, 2018 and September 11, 2018; and
- ⌚ the description of our common stock contained in our registration statement on Form 8-A, filed with the SEC on February 3, 2015, including any amendment or report filed for the purpose of updating such description.

These filings have not been included in or delivered with this prospectus. We will provide to each person, including any beneficial owner to whom this prospectus is delivered, a copy of any document that is incorporated by reference in this prospectus. You may obtain a copy of these documents, at no cost, from our website (www.volitionrx.com) or by contacting us using the following information:

VolitionRx Limited
1 Scotts Road
#24-05 Shaw Centre
Singapore 228208
+1 (646) 650-1351

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus.

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 Oppenheimer has 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.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room located at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. Our filings with the SEC also 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 is part of a registration statement that we filed with the SEC. As permitted by SEC rules, this prospectus forms a part of the registration statement, but does 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 at the address listed above or from the SEC's website.

\$10,000,000



Common Stock

PROSPECTUS

Oppenheimer & Co.

, 2018

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth an itemization of the various costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the issuance and distribution of the securities being registered hereunder. All of the amounts shown are estimated except for the SEC registration fee, of which \$1,753 was previously paid.

SEC registration fee	\$ 12,450
FINRA filing fees	\$ *
Legal fees and expenses	\$ *
Accounting fees and expenses	\$ *
Miscellaneous	\$ *
Total expenses	<u>\$ *</u>

* These fees and expenses depend on the securities offered and the number of issuances, and accordingly cannot be estimated at this time.

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

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

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

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

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

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

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

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

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

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

ITEM 16. EXHIBITS.

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
1.1	Form of Underwriting Agreement.*					
1.2	Equity Distribution Agreement. **					
3.1	Second Amended and Restated Certificate of Incorporation.	8-K	001-36833	3.1	10/11/16	
3.2	Amended and Restated Bylaws.	S-8	333-208512	4.2	12/11/15	
4.1	Specimen Common Stock Certificate.	10-SB	000-30402	3(A)	12/06/99	
4.2	Form of Warrant Agreement and Warrant Certificate.*					
4.3	Form of Unit Agreement and Unit Certificate.*					
5.1	Legal Opinion of Stradling Yocca Carlson & Rauth, P.C. to Shelf Registration Statement.					X
5.2	Supplemental Legal Opinion of Stradling Yocca Carlson & Rauth, P.C. to Shelf Registration Statement.					X
23.1	Consent of Independent Registered Public Accounting Firm.					X
23.2	Consent of Stradling Yocca Carlson & Rauth, P.C. (included in Exhibit 5.1).					X
24.1	Power of Attorney.**					

* To be filed by amendment or pursuant to a report to be filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, if applicable, and incorporated herein by reference.

** Previously filed.

ITEM 17. UNDERTAKINGS.

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

provided, however, that paragraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.



STRADLING YOCCA CARLSON & RAUTH, P.C.
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SANTA BARBARA
SANTA MONICA

COLORADO
DENVER

NEVADA
RENO

WASHINGTON
SEATTLE

September 26, 2018

VolitionRx Limited
1 Scotts Road
#24-05 Shaw Centre
Singapore 228208

Re: Securities Registered under Registration Statement on Form S-3

Ladies and Gentlemen:

In connection with the registration statement on Form S-3, as amended (the “**Registration Statement**”) originally filed by VolitionRx Limited, a Delaware corporation (the “**Company**”), with the Securities and Exchange Commission (the “**Commission**”) on September 10, 2018 under the Securities Act of 1933, as amended (the “**Securities Act**”), you have requested our opinion with respect to the matters set forth below.

You have provided us with the Registration Statement in the form in which it was filed, which includes the prospectus (the “**Prospectus**”). The Prospectus provides that it may be supplemented by one or more supplements to the Prospectus (each, a “**Prospectus Supplement**”). The Registration Statement, including the Prospectus, as supplemented by one or more Prospectus Supplements, will provide for the registration by the Company of up to \$100,000,000 initial aggregate offering price of (i) shares of common stock, par value \$0.001 per share (the “**Common Stock**”); (ii) warrants to purchase shares of Common Stock (the “**Warrants**”); and/or (iii) units comprised of one or more shares of Common Stock and/or Warrants (the “**Units**”), or any combination of the foregoing, plus any additional Common Stock, Warrants and/or Units that may be registered pursuant to any subsequent registration statement that the Company may hereafter file with the Commission pursuant to Rule 462(b) under the Securities Act (collectively, the “**Securities**”). The Securities will be offered and sold, either individually or collectively, pursuant to one or more definitive purchase agreements, subscription agreements, underwriting agreements, indentures, warrant agreements, unit agreements or similar agreements (any such agreement, a “**Purchase Agreement**”).

In our capacity as your counsel in connection with such registration, we are familiar with the proceedings taken and proposed to be taken by the Company in connection with the preparation and filing of the Registration Statement (including the Prospectus), the preparation and filing of the Prospectus Supplement(s), and the authorization, issuance and sale of the Securities. For the purposes of this opinion, with your consent, we have assumed that (i) at the time any Securities are sold pursuant to the Registration Statement (any such time, the “**Relevant Time**”), the Registration Statement and any supplements and amendments thereto (including any post-effective amendments) will be effective and will comply with all applicable laws; (ii) at the Relevant Time, one or more Prospectus Supplements will have been prepared and filed describing the Securities offered thereby and will comply with all applicable laws; (iii) at the time of execution, each of the parties to any Purchase Agreement other than the Company (a) will be duly organized, validly existing and in good standing under the laws of its jurisdiction of organization, (b) will have the requisite power and authority to execute, deliver and perform its obligations under each Purchase Agreement to which it is a party, and (c) will have duly authorized, executed and delivered each Purchase Agreement; and (iv) with respect to each of the parties to each Purchase Agreement (other than the Company), such Purchase Agreement to which it is a party will constitute its legally valid and binding agreement, enforceable against it in accordance with its terms.

In connection with the preparation of this opinion, we have examined such documents and considered such questions of law as we have deemed necessary or appropriate. We have assumed the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof and the genuineness of all signatures.

We are opining herein as to the effect on the subject transaction only of the General Corporation Law of the State of Delaware, and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction.

Subject to the foregoing and the other matters set forth herein, it is our opinion that as of the date hereof:

1. When the Registration Statement and any required post-effective amendments thereto have all become effective under the Securities Act and (i) any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) any applicable Purchase Agreement covering the offer and sale of the shares of Common Stock has been duly authorized, executed and delivered by the Company; (iii) the issuance and delivery of the shares of Common Stock have been duly authorized in accordance with applicable laws, including, without limitation, by the adoption of resolutions of the Board of Directors of the Company (the "**Board**") (or an authorized committee thereof); and (iv) payment of legal consideration for the shares of Common Stock, in the manner contemplated by the Registration Statement, the Prospectus, the related Prospectus Supplement(s), and any applicable Purchase Agreement, has been received by the Company, and assuming that (a) the terms of such shares of Common Stock, as issued and delivered, are materially consistent with the description thereof in the Registration Statement, the Prospectus, and the related Prospectus Supplement(s); (b) at the time of the issuance of such shares of Common Stock, the Company has a sufficient number of authorized but unissued shares of Common Stock under the Company's Second Amended and Restated Certificate of Incorporation (as such may be amended from time to time, the "**Certificate of Incorporation**"); (c) such shares of Common Stock, as issued and delivered, comply with all requirements and restrictions, if any, applicable to the Company, whether imposed by any court, governmental agency or regulatory body having jurisdiction over the Company or otherwise; (d) such shares of Common Stock are issued and sold as contemplated in the Registration Statement, the Prospectus, the related Prospectus Supplement(s), any applicable Purchase Agreement, and such resolutions of the Board (or of an authorized committee thereof), such shares of Common Stock, including any shares of Common Stock duly issued upon the exercise of any Warrants that are exercisable for shares of Common Stock, will be validly issued, fully paid and nonassessable.

2. When the Registration Statement and any required post-effective amendments thereto have all become effective under the Securities Act and (i) any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the applicable Purchase Agreement covering the offer and sale of the Warrants has been duly authorized, executed and delivered by the Company; (iii) the Warrants have been duly established in accordance with the terms of the applicable Purchase Agreement; (iv) the issuance and delivery of the Warrants have been duly authorized in accordance with applicable laws including, without limitation, by the adoption of resolutions of the Board (or an authorized committee thereof); (v) the Warrants have been duly executed, authenticated and/or countersigned (as applicable) in accordance with the applicable Purchase Agreement; and (vi) payment of legal consideration for the Warrants (if any) in the manner contemplated by the Registration Statement, the Prospectus, the related Prospectus Supplement(s), and any applicable Purchase Agreement, has been received by the Company, and assuming that (a) the terms of the Warrants, as executed and delivered, are materially consistent with the description thereof in the Registration Statement, the Prospectus and the related Prospectus Supplement(s); (b) the Warrants, as executed and delivered, do not violate any law applicable to the Company or result in a default under or breach of any agreement or instrument then binding upon the Company; (c) the Warrants as executed and delivered comply with all requirements and restrictions, if any, applicable to the Company, whether imposed by any court, governmental agency or regulatory body having jurisdiction over the Company or otherwise; and (d) the Warrants are issued and sold as contemplated by the Registration Statement, the Prospectus and the related Prospectus Supplement(s), any applicable Purchase Agreement and such resolutions of the Board (or of an authorized committee thereof), such Warrants will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

3. When the Registration Statement and any required post-effective amendments thereto have all become effective under the Securities Act and (i) any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the applicable Purchase Agreement covering the offer and sale of the Units has been duly authorized, executed and delivered by the Company; (iii) the Units have been duly established in accordance with the terms of the applicable Purchase Agreement; (iv) the issuance and delivery of the Units have been duly authorized in accordance with applicable laws including, without limitation, by the adoption of resolutions of the Board (or resolutions of an authorized committee thereof); (v) the Units have been duly executed, authenticated and/or countersigned (as applicable) in accordance with the Purchase Agreement relating to such Units; and (vi) payment of legal consideration for the Units, in the manner contemplated by the Registration Statement, the Prospectus, the related Prospectus Supplement(s), and any applicable Purchase Agreement, has been received by the Company, and assuming that (a) the terms of the Units, as executed and delivered, are materially consistent with the description thereof in the Registration Statement, the Prospectus and the related Prospectus Supplement(s); (b) the Units, as executed and delivered, do not violate any law applicable to the Company or result in a default under or breach of any agreement or instrument then binding upon the Company; (c) the Units as executed and delivered comply with all requirements and restrictions, if any, applicable to the Company, whether imposed by any court or governmental or regulatory body having jurisdiction over the Company or otherwise; and (d) the Units are issued and sold as contemplated by the Registration Statement, the Prospectus and the related Prospectus Supplement(s), any applicable Purchase Agreement and such resolutions of the Board (or of an authorized committee thereof), such Units will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

The opinions set forth in Paragraphs 2 and 3 relating to the enforceability of the Warrants and Units, respectively, are subject to the following exceptions, limitations and qualifications: (i) the effect of bankruptcy, insolvency, reorganization, preference, fraudulent transfer, moratorium or other similar laws relating to or affecting the rights and remedies of creditors; (ii) the effect of general principles of equity, whether enforcement is considered in a proceeding in equity or at law (including the possible unavailability of specific performance or injunctive relief), concepts of materiality, reasonableness, good faith and fair dealing, and the discretion of the court before which any proceeding therefor may be brought; (iii) the unenforceability under certain circumstances under law or court decisions of provisions providing for the indemnification of, or contribution to, a party with respect to a liability where such indemnification or contribution is contrary to public policy; and (iv) the unenforceability of any provision requiring the payment of attorneys' fees, where such payment is contrary to law or public policy.

This opinion is for your benefit in connection with the Registration Statement, and may be relied upon by you and by persons entitled by law to rely upon it pursuant to the applicable provisions of the U.S. federal securities laws. We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement, and further consent to the use of our name under the caption "Legal Matters" in the Prospectus which is part of the Registration Statement. In giving such consent, we do not hereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

This opinion is rendered as of the date hereof and based solely on our understanding of facts in existence as of such date after the examination described in this opinion. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention whether or not such occurrence would affect or modify the opinions expressed herein.

Very truly yours,

/s/ STRADLING YOCCA CARLSON & RAUTH, P.C.

STRADLING YOCCA CARLSON & RAUTH, P.C.



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NEVADA
RENO

WASHINGTON
SEATTLE

September 26, 2018

VolitionRx Limited
1 Scotts Road
#24-05 Shaw Centre
Singapore 228208

Re: VolitionRx Limited Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel for VolitionRx Limited, a Delaware corporation (the “*Company*”), in connection with the registration statement on Form S-3, as amended (the “*Registration Statement*”) originally filed by the Company with the Securities and Exchange Commission (the “*Commission*”) on September 10, 2018 under the Securities Act of 1933, as amended (the “*Securities Act*”), and you have requested our opinion with respect to the matters set forth below.

You have provided us with the Registration Statement in the form in which it was filed, which includes the prospectus (the “*Prospectus*”). The Prospectus provides that it may be supplemented by one or more supplements to the Prospectus (each, a “*Prospectus Supplement*”). We have rendered a separate opinion in connection with certain matters relating to the Registration Statement, which is being filed as Exhibit 5.1 thereto.

You have requested our supplemental opinion with respect to certain matters in connection with the proposed offer and sale by the Company of an aggregate of up to \$10,000,000 of shares (the “*Shares*”) of the Company’s common stock, par value \$0.001 per share (the “*Common Stock*”), pursuant to the Registration Statement, the Prospectus and a Prospectus Supplement relating to the offer and sale of the Shares (the Prospectus and the Prospectus Supplement shall collectively be referred to as the “*Sales Prospectus*”). We understand that the Shares are proposed to be offered and sold by the Company through Oppenheimer & Co. Inc., as sales agent (the “*Agent*”), pursuant to that certain Equity Distribution Agreement, dated as of September 7, 2018, by and between the Sales Agent and the Company (the “*Sales Agreement*”).

In our capacity as your counsel in connection with such registration, we are familiar with the proceedings taken and proposed to be taken by the Company in connection with the preparation and filing of the Registration Statement, the preparation and filing of the Sales Prospectus, the negotiation and execution of the Sales Agreement, and the authorization, issuance and sale of the Shares.

In connection with the preparation of this supplemental opinion, we have examined such documents and considered such questions of law as we have deemed necessary or appropriate. We have assumed the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof and the genuineness of all signatures.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, when issued and sold in the manner described in the Registration Statement, the Sales Prospectus and the Sales Agreement, will be validly issued, fully paid and non-assessable.

We are opining herein as to the effect on the subject transaction only of the General Corporation Law of the State of Delaware, and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction.

This supplemental opinion is for your benefit in connection with the offer and sale of the Shares pursuant to the Registration Statement and may be relied upon by you and by persons entitled by law to rely upon it pursuant to the applicable provisions of the U.S. federal securities laws. We hereby consent to the use of this opinion as Exhibit 5.2 to the Registration Statement, and further consent to the use of our name under the caption "Legal Matters" in the Sales Prospectus which is part of the Registration Statement. In giving such consent, we do not hereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

This opinion is rendered as of the date hereof and based solely on our understanding of facts in existence as of such date after the examination described in this supplemental opinion. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention whether or not such occurrence would affect or modify the opinions expressed herein.

Very truly yours,

/s/ STRADLING YOCCA CARLSON & RAUTH, P.C.

STRADLING YOCCA CARLSON & RAUTH, P.C.



**Registered with the Public Company
Accounting Oversight Board**

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Audit Committee
VolitionRX Limited

As independent registered public accountants, we hereby consent to the use of our report dated March 1, 2018 with respect to the financial statements of VolitionRX Limited, in its registration statement on Form S-3/A relating to the registration of \$100,000,000 in aggregate amount of common stock, warrants for common stock and units. We also consent to the reference of our firm under the caption “Experts” in the registration statement.

/s/ Sadler, Gibb & Associates, LLC

Salt Lake City, UT
September 26, 2018

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