VOLITIONRX LTD
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Registration No. 333-206781
SUBJECT TO COMPLETION, DATED SEPTEMBER 29, 2016

PROSPECTUS SUPPLEMENT
(To Prospectus dated September 18, 2015)

VOLITIONRX LIMITED

Shares of Common Stock

We are offering shares of our common stock. Our common stock is listed on the NYSE MKT under the symbol VNRX. On September 28, 2016, the last reported sale price of our common stock was $5.61 per share.

Investing in our common stock involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading Risk Factors beginning on page S-6 of this prospectus supplement.

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

	Per Share	Total
Public offering price	$	$
Underwriting discount[(1)]	$	$
Proceeds, before expenses, to us	$	$

(1) Gives effect to the fact that the underwriting discount for shares sold to (A) certain existing stockholders, including Lagoda Asset Management will be 2% of the aggregate purchase price, (B) certain officers and directors of VolitionRx will be 0% of the aggregate purchase price, and (C) all other investors in this offering will be 7% of the aggregate purchase price. See Underwriting for additional disclosure regarding underwriting discounts, commissions and estimated offering expenses.

Certain existing stockholders, including Lagoda Asset Management, or Lagoda, as well as certain officers and directors of VolitionRx have indicated an interest in purchasing up to an aggregate of shares

of our common stock in this offering at the public offering price. Because this indication of interest is not a binding agreement or commitment to purchase, such potential investors may elect not to purchase any shares in this offering. The underwriters will receive a reduced underwriting discount of 2% on any shares purchased by certain existing stockholders, including Lagoda, and 0% on any shares purchased by officers and directors of VolitionRx in this offering.

We have granted the underwriters an option for a period of 30 days from the date of this prospectus supplement to purchase up to an additional shares of common stock to cover overallotments at the public offering price, less underwriting discounts and commissions.

The shares will be ready for delivery on or about October , 2016.

Sole Book Running Manager

NATIONAL SECURITIES CORPORATION

The date of this prospectus supplement is September , 2016.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a registration statement that was filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process and consists of two parts. The first part is the prospectus supplement, including the documents incorporated by reference herein, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference therein, provides more general information. In general, when we refer only to the prospectus, we are referring to both parts of this document combined. Before you invest, you should carefully read this prospectus supplement, the accompanying prospectus, all information incorporated by reference herein and therein, as well as the additional information described under the heading Where You Can Find More Information. These documents contain information you should carefully consider when deciding whether to invest in our common stock.

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

You should rely only on the information contained in this prospectus supplement, the accompanying prospectus, any document incorporated by reference herein or therein, or any free writing prospectuses we may provide to you in connection with this offering. Neither we nor any of the underwriters have authorized anyone to provide you with any different information. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide to you. The information contained in this prospectus supplement, the accompanying prospectus, and in the documents incorporated by reference herein or therein is accurate only as of the date such information is presented. Our business, financial condition, results of operations and prospects may have changed since that date.

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

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus concerning our industry and the markets in which we operate, including market position and market opportunity, is based on information from our management s estimates, as well as from industry publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. However, assumptions and estimates of our future performance, and the future performance of our industry are subject to numerous known and unknown risks and uncertainties, including those described under the heading Risk Factors beginning on page S-6 of this prospectus supplement. These and other important factors could result in our estimates and assumptions being materially different from future results. 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 and worse from what we expect. See the information included under the heading Cautionary Note Regarding Forward-Looking Information.

Unless otherwise stated in this prospectus supplement and the accompanying prospectus, references to Company, VolitionRx, we, us, or our refer to VolitionRx Limited and its wholly-owned subsidiaries. Nucleosomics®, Nu 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 supplement and the accompanying prospectus are the property of their respective owners.

PROSPECTUS SUPPLEMENT SUMMARY

This prospectus supplement summary discusses the key aspects of the offering and highlights certain information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents we incorporate by reference herein and therein. However, as this is a summary, it does not contain all of the information that you should consider before deciding to invest in our common stock. You are encouraged to carefully read this entire prospectus, the accompanying prospectus, any free writing prospectus that we have been authorized to use and the documents incorporated by reference herein and in the accompanying prospectus. You should pay special attention to the information provided under the heading Risk Factors in this prospectus supplement and under the heading Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and the related notes in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, incorporated by reference herein.

Company Overview

We are a clinical stage life sciences company focused on developing blood-based diagnostic tests that meet the need for accurate, fast, cost-effective and scalable tests for detecting and diagnosing cancer and other diseases. We have developed thirty two blood-based assays to date to detect specific biomarkers that can be used individually or in combination to generate a profile which forms the basis of a test for a particular cancer or disease. We intend to commercialize our products in the future through various channels within the European Union, the United States and throughout the rest of the world beginning with China and India.

Currently, there are very few blood tests for diagnosis of cancer in common clinical use. The only commonly used blood screening test for any cancer is the Prostate-Specific Antigen, or PSA, test for prostate cancer. We consider the PSA test to have relatively poor diagnostic accuracy (detecting approximately 70% of prostate cancers and misdiagnoses about 30% of healthy men as positive for cancer) but it is widely used because it is the best product currently available.[1] The test is intended to be used to monitor patients after definitive diagnosis or treatment. The American Cancer Society recommends that prostate cancer screening should not occur without an informed decision making process regarding risks.[2] In 2012, the U.S. Preventive Services Task Force recommended against PSA-based screening for healthy men because of a moderate or high probability that the service has no benefits or that the harms outweigh the benefits.[3] There are currently no commonly used blood tests for screening for lung, pancreatic or colorectal cancer.

We are developing blood-based diagnostics for the most prevalent cancers, beginning with colorectal, lung and pancreatic cancer, using our Nucleosomics® biomarker discovery platform. The platform employs a range of simple NuQ® immunoassays on an industry standard ELISA format, which allows rapid quantification of epigenetic changes in biofluids (whole blood, plasma, serum, sputum, urine, etc.) compared to other approaches such as bisulfite conversion and polymerase chain reaction. NuQ® biomarkers can be used alone, or in combination, to generate profiles related to specific conditions. The first tranche of data released from a large independent trial for colorectal cancer could, if carried through into our screening or symptomatic trials, potentially have a positive impact for broad scale, cost effective, cancer diagnostics.

We anticipate that because of their ease of use and cost efficiency, our tests have the potential to become the first method of choice for cancer diagnostics, allowing detection of a range of cancers at an earlier stage than typically occurs currently, and testing of individuals who, for reasons such as time, cost or aversion to current methods, are not currently tested. We believe our blood test for colorectal cancer has the potential to have significantly higher compliance from patients compared to fecal tests and colonoscopies which are invasive and/or unpleasant. According to available data from the Organisation for Economic Co-operation and Development, this could be of significant benefit to the approximately 148 million 50-74 year olds in the European Union alone that the European Union recommends are screened for colorectal cancer.[4]

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[1] National Cancer Institute Fact Sheet: Prostate-Specific Antigen (PSA) Test, 24 July 2012

[2] Wolf. A et. al. American Cancer Society Guideline for the Early Detection of Prostate Cancer: Update 2010, CA: A Cancer Journal for

Clinicians; 3 Mar 2010:60;2:70-98

[3] U.S. Preventative Services Task Force, Final Recommendation Statement Prostate Cancer: Screening, May 2012

[4] European guidelines for quality assurance in colorectal cancer screening and diagnosis; first Ed. Segnan N, Patnick J, von Karsa L (eds), 2010

We undertook our early trials in Europe given that our laboratories are based in Belgium and that we have strong relationships with world class collaborators. Hvidovre Hospital in Denmark has given us access to 4,800 previously collected samples from patients for our retrospective symptomatic colorectal trial and a further 14,000 previously collected samples from patients for our prospective screening colorectal trial. All research and development operations are currently in Belgium due to its favorable environment for small companies including a well-trained technical work force, low cost quality research facilities and access to government support, including our funding from the Walloon region.

Starting in 2015, we decided to completely focus our efforts in the clinical in-vitro diagnostics, or IVD, market, where products are used for patient diagnosis. In the United States, we anticipate that our tests will have to be cleared through the United States Food and Drug Administration s, or FDA s, premarket notification, or 510(k), process or its premarket approval, or PMA, process. The determination of whether a 510(k) or a PMA is necessary will depend in part on the proposed indications for use and FDA s assessment of the risk associated with the use of the IVD for a particular indication. A similar system operates in China through the Chinese Food and Drug Administration, or CFDA. In the European Union, our tests can be marketed after a declaration and marking that the test conforms to the essential requirements of the relevant European health, safety and environmental protection legislation, or CE Marking. The CE Mark is also recognized in certain Asian territories, including India, for the private payer market.

We obtained our first CE Mark certification in September 2015, for a single biomarker for colorectal cancer, or CRC, and two further CE Marks in April 2016, for two biomarkers for CRC and pancreatic cancer. We are currently working on different products such as a front line test and a symptomatic test for CRC. We expect that we will be required to perform additional clinical trials in the United States to obtain FDA clearance or approval for our CRC test. We are committed to obtaining FDA clearance or approval to allow patient access to our tests in the United States as soon as practicable. We intend to begin 510(k) purposed United States based trials in 2017. We are also currently conducting European clinical trials for lung and pancreatic cancer.

We also expect that we will be required to do trials in China to achieve CFDA approval for our lung cancer test, provided we can ensure adequate protection of our intellectual property in China. Local validation studies will be required to support sales of our CE Marked colorectal cancer test in India for the private payer market. We are currently seeking distribution partners for the major Asian markets.

Our Nucleosomics® biomarker platform is a technology that can be used for a wide variety of cancers. We are currently developing Nucleosomics® tests for a number of major cancers including colorectal, pancreatic, lung and aggressive prostate. We have one trial underway in the United States with MD Anderson Cancer Center in Texas, to establish the efficacy of Nucleosomics® in a precision medicine application to differentiate between the more aggressive anaplastic prostate cancer, and the typical, less-aggressive castration resistant prostate cancer. We are also validating the use of our tests for early diagnosis of endometriosis, a benign but often debilitating condition, and the leading cause of admissions to hospital for abdominal pain. Endometriosis affects approximately 10% of women and is a leading cause of female infertility.[5] At present, there are no non-surgical diagnostic tests for endometriosis.

We do not anticipate earning significant revenues until such time as we are able to fully market our intended products on the IVD market. For this reason, our auditors stated in their report on our most recent audited financial statements

that our losses and negative cash flow from operations raise substantial doubt that we will be able to continue as a going concern without further financing. 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.

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[5] American Society for Reproductive Medicine Fact sheet: Endometriosis - A Guide for Patients

Recent Developments

In September 2016, we announced that we expect to receive CE Marking on our NuQ Colorectal Cancer Screening Triage Test, or NuQ Triage Test, in late 2016 and aim to begin marketing the test commencing in early 2017. The NuQ Triage Test, developed at our laboratories in Belgium in conjunction with Hvidovre Hospital, University of Copenhagen, has demonstrated the potential to reduce colonoscopies by up to 25% while maintaining almost 97% detection of colorectal cancer. We intend to initially focus the commercialization of the NuQ Triage Test in the European Union member states, which have an aggregate screening age population of approximately 148 million persons.

2016 Annual Meeting of Stockholders

Our 2016 Annual Meeting of Stockholders, or the Annual Meeting, is scheduled to be held on October 7, 2016. At the Annual Meeting, we will present several proposals, including a proposal to amend and restate our Amended and Restated Certificate of Incorporation to, among other things, eliminate provisions relating to preferred stock and a proposal to amend our 2015 Stock Incentive Plan to increase the number of shares of common stock that we have the authority to grant under our 2015 Stock Incentive Plan. Further information regarding the Annual Meeting and the proposals to be considered by stockholders may be found in our Definitive Proxy Statement which was filed with the Securities and Exchange Commission on August 22, 2016.

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 Securities and Exchange Commission. The information contained on our website is not incorporated by reference into this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

The Offering

Issuer:	VolitionRx Limited
Common Stock offered by us:	shares
Common Stock to be outstanding immediately after this offering:	shares
Option to purchase additional shares:	The underwriters have an option to purchase a maximum of additional shares of common stock from us to cover over-allotments. The underwriters can exercise this option at any time within 30 days from the date of this prospectus supplement.
Indication of interest:	Certain existing stockholders, including Lagoda, as well as certain officers and directors of VolitionRx have indicated an interest in purchasing up to an aggregate of shares of our common stock in this offering at the public offering price. Because this indication of interest is not a binding agreement or commitment to purchase, such potential investors may elect not to purchase any shares in this offering. The underwriters will receive a reduced underwriting discount of 2% on any shares purchased by certain existing stockholders, including Lagoda, and 0% on any shares purchased by officers and directors of VolitionRx in this offering.
Use of proceeds:	We intend to use the net proceeds from this offering for continued product development, clinical studies, product commercialization, working capital and other general corporate purposes. See the information included under the heading Use of Proceeds.
Risk factors:	Investing in our common stock involves a high degree of risk. See the information included under the heading Risk Factors beginning on page S-6 of this prospectus supplement for a discussion of factors that you should carefully consider before deciding to invest in our common stock.

Trading symbol:	Our common stock is currently quoted on the NYSE MKT under the symbol VNRX.

The number of shares of our common stock to be outstanding after this offering is based on 23,521,219 shares of our common stock outstanding as of June 30, 2016, and excludes:

- 2,210,138 shares of our common stock issuable upon the exercise of common stock purchase warrants outstanding as of June 30, 2016, with a weighted average exercise price of approximately $2.35 per share;
- 2,455,300 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2016, with an exercise price of approximately $3.70 per share; and
- 210,000 additional shares of common stock reserved for future issuance under our 2015 Stock Incentive Plan, as of June 30, 2016.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- no exercise of the outstanding options and warrants described above; and
- no exercise by the underwriters of their option to purchase additional shares of our common stock.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below, together with all of the other information included in this prospectus supplement, the accompanying prospectus, and the information incorporated by reference herein and therein.

If any of the risks described below, or those incorporated by reference into this prospectus actually occur, our business, financial condition or results of operations 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 and results of operations. Certain statements below are forward-looking statements. See the information included under the heading Cautionary Note Regarding Forward-Looking Information.

Risks Associated with our Company

We have not generated any significant revenue since our inception and we may never achieve profitability.

We are a clinical stage company and since our inception, we have not generated any significant revenue. As we continue the discovery and development of our future diagnostic products, our expenses are expected to increase significantly. Accordingly, we will need to generate significant revenue to achieve profitability. Even as we begin to market and sell our intended products, we expect our losses to continue as a result of ongoing research and development expenses, as well as increased manufacturing, sales and marketing expenses. These losses, among other things, have had and will continue to have an adverse effect on our working capital, total assets and stockholders equity. Because of the numerous risks and uncertainties associated with our product development and commercialization efforts, we are unable to predict when we will become profitable, and we may never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. If we are unable to achieve and then maintain profitability, our business, financial condition and results of operations will be negatively affected and the market value of our common stock will decline.

We may need to raise additional capital in the future. If we are unable to secure adequate funds on terms acceptable to us, we may be unable to execute our plan of operations.

If we incur delays in commencing commercialization of our intended products or in achieving significant product revenue, or if we encounter other unforeseen adverse business developments, we may exhaust our capital resources prior to the commencement of commercialization.

We cannot be certain that additional capital will be available when needed or that our actual cash requirements will not be greater than anticipated. Financing opportunities may not be available to us, or if available, may not be available on favorable terms. The availability of financing opportunities will depend on various factors, such as market conditions and our financial condition and outlook. In addition, if we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly-issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we obtain debt financing, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, and the terms of the debt securities issued could impose significant restrictions on our operations. If we are unable to obtain financing on terms favorable to us, we may be unable to execute our plan of operations and we may be required to cease or reduce development or commercialization of any future products, sell some or all of our technology or assets or merge with another entity.

It is difficult to forecast our future performance, which may cause our financial results to fluctuate unpredictably.

Our limited operating history and the rapid evolution of the market for diagnostic products make it difficult for us to predict our future performance. A number of factors, many of which are outside of our control, may contribute to fluctuations in our financial results, such as:

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our ability to develop or procure antibodies for clinical use in our future products;

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our ability to translate preliminary clinical results to larger prospective symptomatic and screening populations;

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the demand for our intended products;

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our ability to obtain any necessary financing;

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our ability to market and sell our future products;

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market acceptance of our future products and technology;

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performance of any future strategic business partners;

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our ability to obtain regulatory clearances or approvals;

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changes in technology that may render our future products uncompetitive or obsolete;

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competition with other cancer diagnostics companies; and

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adverse changes in the healthcare industry.

Our future success depends on our ability to retain our officers and directors, scientists, and other key employees and to attract, retain and motivate qualified personnel.

Our success depends on our ability to attract, retain and motivate highly qualified management and scientific personnel. In particular, we are highly dependent on Cameron Reynolds, our President and Chief Executive Officer, our other officers and directors, scientists and key employees. The loss of any of these persons or their expertise would be difficult to replace and could have a material adverse effect on our ability to achieve our business goals. In addition, the loss of the services of any one of these persons may impede the achievement of our research, development and commercialization objectives by diverting management s attention to the identification of suitable replacements, if any. There can be no assurance that we will be successful in hiring or retaining qualified personnel and our failure to do so could have a material adverse effect on our business, financial condition and results of operations.

Recruiting and retaining qualified scientific personnel and, in the future, sales and marketing personnel will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among pharmaceutical, biotechnology and diagnostic companies for similar personnel. We also experience competition for the hiring of scientific personnel from universities and research institutions. We do not maintain key person insurance on any of our employees. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research, development and commercialization strategies.

Our consultants and advisors, however, may have other commitments or employment that may limit their availability to us.

We expect to expand our product development, research and sales and marketing capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our consultants, advisors, and employees and the scope of our operations as we continue to develop and commercialize our current pipeline of intended products and new products. In order to manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities, and continue to recruit and train additional qualified personnel. Due to our limited resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plan or disrupt our operations.

We have limited experience with direct sales and marketing and any failure to build and manage a direct sales and marketing team effectively could have a material adverse effect on our business.

Our products will require several dynamic and evolving sales models tailored to different worldwide markets, users and products. In 2015, we decided to focus our sales strategy on the clinical IVD market with the CE Marking of our first product in Europe. Pending completion of our review of the regulatory environment in the United States, including the effect of recent pronouncements regarding Laboratory Developed Tests, by the FDA, we may decide to enter the United States market through a Clinical Laboratory Improvement Amendment certified laboratory in the United States. We intend to progressively grow to large volumes of tests sold to centralized laboratories and eventually reach the mass diagnostics testing market. The exact nature of the ideal sales strategy will evolve as we continue to develop our intended products and seek entry into the IVD markets. We have limited experience with direct sales and marketing and any failure to build and manage a direct sales and marketing team effectively could have a material adverse effect on our business.

There are significant risks involved in building and managing our sales and marketing organization, as well as identifying and negotiating deals with the right sales and distribution partners, including risks related to our ability to:

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identify appropriate partners;

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negotiate beneficial partnership and distribution agreements;

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hire qualified individuals as needed;

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generate sufficient leads within our targeted market for our sales force;

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provide adequate training for effective sales and marketing;

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retain and motivate our direct sales and marketing professionals; and

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effectively oversee geographically dispersed sales and marketing teams.

Our failure to adequately address these risks could have a material adverse effect on our ability to increase sales and use of our future products, which would cause our revenues to be lower than expected and harm our results of operations.

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

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

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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. As defined in Rule 13a-15(f) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, internal control over financial reporting is a process designed by, or under the supervision of, the principal executive and principal financial officer and effected by the board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

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

We have determined that we have material weaknesses in our internal control over financial reporting as of December 31, 2015. See *Item 9A*, *Controls and Procedures* of our Annual Report on Form 10-K for the year ended December 31, 2015, incorporated by reference herein, for a complete discussion of these material weaknesses in our internal control over financial reporting and remediation efforts. Although we are undertaking steps to address these material weaknesses, the existence of a material weakness is an indication that there is more than a remote likelihood that a material misstatement of our financial statements will not be prevented or detected in the current or any future period. There can be no assurance that we will be able to fully implement our plans and controls, as further described in *Item 9A*, to address these material weaknesses, or that the plans and controls, if implemented, will be successful in fully remediating these material weaknesses. In addition, we may in the future identify further material weaknesses in our internal control over financial reporting that we have not discovered to date. If we fail to successfully remediate the identified material weaknesses, or we identify further material weaknesses in our internal controls, the market s confidence in our financial statements could decline and the market price of our common stock could be adversely impacted. Additionally, for so long as we remain as a smaller reporting company, under current rules, our accounting firm will not be required to provide an opinion regarding our internal controls over financial reporting.

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

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

Risks Associated with our Business

Failure to successfully develop, manufacture, market, and sell our future products will have a material adverse effect on our business, financial condition, and results of operations.

We are in the process of developing a suite of diagnostic tests as well as additional products. To date, we have not placed any of our product prototypes on the clinical market. The successful development and commercialization of our intended products is critical to our future success. Our ability to successfully develop, manufacture, market, and sell our future products is subject to a number of risks, many of which are outside our control. There can be no assurance that we will be able to develop and manufacture products in commercial quantities at acceptable costs, successfully market any products, or generate revenues from the sale of any products. Failure to achieve any of the foregoing would have a material adverse effect on our business, financial condition, and results of operations.

Our business is dependent on our ability to successfully develop and commercialize diagnostic products. If we fail to develop and commercialize diagnostic products, we may be unable to execute our plan of operations.

Our current business strategy focuses on discovering, developing and commercializing diagnostic products. The success of our business will depend on our ability to fully develop and commercialize the diagnostic products in our current development pipeline as well as continue the discovery and development of other diagnostics products.

Prior to commercializing diagnostic products, we will be required to undertake time-consuming and costly development activities with uncertain outcomes, including conducting clinical studies and obtaining regulatory clearance or approval in the United States and in Europe. Delays in obtaining approvals and clearances could have material adverse effects on us and our ability to fully carry out our plan of operations. We have limited experience in taking products through these processes and there are considerable risks involved in these activities. The science and methods that we are employing are innovative and complex, and it is possible that our development programs will ultimately not yield products suitable for commercialization or government approval. Products that appear promising in early development may fail to be validated in subsequent studies, and even if we achieve positive results, we may still fail to obtain the necessary regulatory clearances or approvals. Few research and development projects result in commercial products, and perceived viability in early clinical studies often is not replicated in later studies. At any point, we may abandon development of a product, or we may be required to expend considerable resources obtaining additional clinical and nonclinical data, which would adversely impact the timing for generating potential revenue from those products. Further, our ability to develop and launch diagnostic tests is dependent on our receipt of substantial additional funding. If our discovery and development programs yield fewer commercial products than we expect, we may be unable to execute our business plan, and our business, financial condition and results of operations may be adversely affected.

Our failure to obtain necessary regulatory clearances or approvals on a timely basis would significantly impair our ability to distribute and market our future products on the clinical IVD market.

We are subject to regulation by the FDA in the United States, the Conformité Européenne in Europe and other regulatory bodies in other countries where we intend to sell our future products. Before we are able to place our intended products in the clinical IVD markets in the United States and Europe, we will be required to obtain clearance or approval of our future products from the FDA and receive a CE Mark, respectively. The European Union has recently proposed regulations that would impose additional requirements to obtain a CE Mark, which could result in delays and further expense, in terms of staff costs to us as compared to the current CE Mark process. The new regulations will require each product submission to be thoroughly audited by Notified Bodies, instead of the current self-certification process. The EU Medical Devices Regulation and IVD Regulation are both in the final stages of the legislative procedure and are estimated to be finished sometime in 2016, allowing them to come into effect by the end of 2016, or early 2017. Some time will be required to polish the agreed text and have it translated into the official European Union languages. Delays in obtaining approvals and clearances could have material adverse effects on us and our ability to fully carry out our plan of operations.

Additionally, even if we receive the required government clearance or approval of our intended products, we are still subject to continuing regulation and oversight. Under the FDA, diagnostics are considered medical devices and are subject to ongoing controls and regulations, including inspections, compliance with established manufacturing practices, device-tracking, record-keeping, advertising, labeling, packaging, and compliance with other standards. The process of complying with such regulations with respect to current and new products can be costly and time-consuming. Failure to comply with these regulations could have a material adverse effect on our business, financial condition, and results of operations. Furthermore, any FDA regulations governing our future products are subject to change at any time, which may cause delays and have material adverse effects on our operations. In Europe, IVD companies are able to self-certify that they meet the appropriate regulatory requirements but are subject to inspection for enforcement. European national agencies, such as customs authorities and/or the Departments of Health, Industry and Labor, conduct market surveillance to ensure the applicable requirements have been met for products marketed within the European Union.

If the marketplace does not accept the products in our development pipeline or any other diagnostic products we might develop, we may be unable to generate sufficient revenue to sustain and grow our business.

Our intended products may never gain significant acceptance in the research or clinical marketplace and therefore may never generate substantial revenue or profits. Physicians, hospitals, clinical laboratories, researchers or others in the healthcare industry may not use our future products unless they determine that they are an effective and cost-efficient means of detecting and diagnosing cancer. In addition, we will need to expend a significant amount of resources on marketing and educational efforts to create awareness of our future products and to encourage their acceptance and adoption. If the market for our future products does not develop sufficiently or the products are not accepted, our revenue potential will be harmed.

The cancer diagnostics market is highly competitive and subject to rapid technological change; accordingly, we will face fierce competition and our intended products may become obsolete.

The cancer diagnostics market is extremely competitive and characterized by evolving industry standards and new product enhancements. Cancer diagnostic tests are technologically innovative and require significant planning, design, development, and testing at the technological, product, and manufacturing process levels. These activities require significant capital commitments and investment. There can be no assurance that our intended products or proprietary technologies will remain competitive following the introduction of new products and technologies by competing companies within the industry. Furthermore, there can be no assurance that our competitors will not develop products that render our future products obsolete or that are more effective, accurate or can be produced at lower costs. There can be no assurance that we will be successful in the face of increasing competition from new technologies or products introduced by existing companies in the industry or by new companies entering the market.

We expect to face intense competition from companies with greater resources and experience than us, which may increase the difficulty for us to achieve significant market penetration.

The market for cancer diagnostics is intensely competitive, subject to rapid change, and significantly affected by new product introductions and other market activities of industry participants. Our competitors include large multinational corporations and their operating units, including Abbott Laboratories Inc., Cepheid Inc., Philips, GE Healthcare, Siemens, Gen-Probe Incorporated, MDxHealth SA, EpiGenomics AG, Applied Proteomics Inc., Roche Diagnostics, Exact Sciences Corporation, Sequenom, Inc. and several others. These companies have substantially greater financial, marketing and other resources than we do. Each of these companies is either publicly traded or a division of a publicly traded company, and enjoys several competitive advantages, including:

- significantly greater name recognition;
- established relationships with healthcare professionals, companies and consumers;
- additional lines of products, and the ability to offer rebates or bundle products to offer higher discounts or incentives to gain a competitive advantage;
- established supply and distribution networks; and
- greater resources for product development, sales and marketing, and intellectual property protection.

These other companies have developed and will continue to develop new products that will compete directly with our future products. In addition, many of our competitors spend significantly greater funds for the research, development, promotion, and sale of new and existing products. These resources allow them to respond more quickly to new or emerging technologies and changes in consumer requirements. For all the foregoing reasons, we may not be able to compete successfully against our competitors.

Declining global economic or business conditions may have a negative impact on our business.

Continuing concerns over United States healthcare reform legislation and energy costs, geopolitical issues, the availability and cost of credit and government stimulus programs in the United States and other countries have contributed to increased volatility and diminished expectations for the global economy. These factors, combined with low business and consumer confidence and high unemployment precipitated a global economic slowdown and recession. If the economic climate does not improve or continues to deteriorate, our business, including our access to the Research Use Only or clinical IVD markets for diagnostic tests, could be adversely affected, resulting in a negative impact on our business, financial condition and results of operations.

On June 23, 2016, the United Kingdom held a referendum in which voters approved an exit from the European Union, commonly referred to as Brexit . As a result of the referendum, it is expected that the British government will begin negotiating the terms of the United Kingdom s future relationship with the European Union Although it is unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the European Union countries and the United Kingdom and increased regulatory complexities. These changes may adversely affect our ability to market our future products in the United Kingdom which could have an adverse effect on our business, financial condition, and results of operations.

We will rely on third parties to manufacture and supply our intended products. Any problems experienced by these third parties could result in a delay or interruption in the supply of our intended products to our customers, which could have a material negative effect on our business.

We will rely on third parties to manufacture and supply our intended products. The manufacture of our intended diagnostic products will require specialized equipment and utilize complicated production processes that would be difficult, time-consuming and costly to duplicate. If the operations of third party manufacturers are interrupted or if they are unable to meet our delivery requirements due to capacity limitations or other constraints, we may be limited in our ability to fulfill our future sales orders. Any prolonged disruption in the operations of third party manufacturers could have a significant negative impact on our ability to sell our future products, could harm our reputation and could cause us to seek other third party manufacturing contracts, thereby increasing our anticipated development and commercialization costs. In addition, if we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards required by the FDA and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop products or receive approval of any products in a timely manner.

The manufacturing operations of our future third party manufacturers will likely be dependent upon third party suppliers, making us vulnerable to supply shortages and price fluctuations, which could harm our business.

The operations of our future third party manufacturers will likely be dependent upon third party suppliers. A supply interruption or an increase in demand beyond a supplier s capabilities could harm the ability of our future manufacturers to manufacture our intended products until new sources of supply are identified and qualified.

Reliance on these suppliers could subject us to a number of risks that could harm our business, including:

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interruption of supply resulting from modifications to or discontinuation of a supplier s operations;

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delays in product shipments resulting from uncorrected defects, reliability issues, or a supplier s variation in a component;

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a lack of long-term supply arrangements for key components with our suppliers;

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inability to obtain adequate supply in a timely manner, or to obtain adequate supply on commercially reasonable terms;

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difficulty and cost associated with locating and qualifying alternative suppliers for components in a timely manner;

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production delays related to the evaluation and testing of products from alternative suppliers, and corresponding regulatory qualifications;

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delay in delivery due to suppliers prioritizing other customer orders over ours;

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damage to our brand reputation caused by defective components produced by the suppliers; and

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fluctuation in delivery by the suppliers due to changes in demand from us or their other customers.

Any interruption in the supply of components of our future products or materials, or our inability to obtain substitute components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our future customers, which would have an adverse effect on our business.

We will depend on third party distributors in the future to market and sell our future products which will subject us to a number of risks.

We will depend on third party distributors to sell, market, and service our future products in our intended markets. We are subject to a number of risks associated with reliance upon third party distributors including:

- lack of day-to-day control over the activities of third party distributors;
- third party distributors may not commit the necessary resources to market and sell our future products to our level of expectations;
- third party distributors may terminate their arrangements with us on limited or no notice or may change the terms of these arrangements in a manner unfavorable to us; and
- disagreements with our future distributors could result in costly and time-consuming litigation or arbitration which we could be required to conduct in jurisdictions with which we are not familiar.

If we fail to establish and maintain satisfactory relationships with our future third party distributors, our revenues and market share may not grow as anticipated, and we could be subject to unexpected costs which could harm our results of operations and financial condition.

If the patents that we rely on to protect our intellectual property prove to be inadequate, our ability to successfully commercialize our future products will be harmed and we may never be able to operate our business profitably.

Our success depends, in large part, on our ability to protect proprietary methods, discoveries and technologies that we develop under the patents and intellectual property laws of the United States, the European Union and other countries, so that we can seek to prevent others from unlawfully using our inventions and proprietary information. We have four patents related to our diagnostic tests granted in the United States; one patent granted in the European Union and four patents granted in other countries. We also hold an exclusive worldwide license to one patent which is granted in five countries and pending in the United States. Additionally, we have patent applications in the name of our subsidiaries pending in the United States, the European Union and other countries. We cannot assure you that any of the pending patent applications will result in patents being issued. In addition, due to technological changes that may affect our future products or judicial interpretation of the scope of our patents, our intended products might not, now or in the future, be adequately covered by our patents.

If third parties assert that we have infringed their patents and proprietary rights or challenge the validity of our patents and proprietary rights, we may become involved in intellectual property disputes and litigation that would be costly, time consuming, and delay or prevent the development or commercialization of our future products.

Our ability to commercialize our intended products depends on our ability to develop, manufacture, market and sell our future products without infringing the proprietary rights of third parties. Third parties may allege that our future products or our methods or discoveries infringe their intellectual property rights. Numerous United States and foreign patents and pending patent applications, which are owned by third parties, exist in fields that relate to our intended products and our underlying methodologies, discoveries and technologies.

A third party may sue us for infringing its patent rights. Likewise, we may need to resort to litigation to enforce a patent issued or licensed to us or to determine the scope and validity of third party proprietary rights. In addition, a third party may claim that we have improperly obtained or used its confidential or proprietary information. The cost to us of any litigation or other proceeding relating to intellectual property rights, even if resolved in our favor, could be substantial, and the litigation could divert our management s attention from other aspects of our business. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Uncertainties resulting from the initiation and continuation of any litigation could

limit our ability to continue our operations.

If we are found to infringe upon intellectual property rights of third parties, we might be forced to pay damages, potentially including treble damages. In addition to any damages we might have to pay, a court could require us to stop the infringing activity or obtain a license. Any license required under any patent may not be made available on commercially acceptable terms, if at all. In addition, such licenses are likely to be non-exclusive and, therefore, our competitors may have access to the same technology licensed to us. If we fail to obtain a required license and are unable to design around a patent, we may be unable to effectively market some or all of our future products, which could limit our ability to generate revenue or achieve profitability and possibly prevent us from generating revenue sufficient to sustain our operations.

If we are unable to protect our trade secrets, we may be unable to protect our interests in proprietary technology, processes and know-how that is not patentable or for which we have elected not to seek patent protection.

In addition to patented technology, we rely upon trade secret protection to protect our interests in proprietary know-how and for processes for which patents are difficult or impossible to obtain or enforce. We may not be able to protect our trade secrets adequately. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors and outside scientific advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. We rely, in part, on non-disclosure and confidentiality agreements with our employees, consultants and other parties to protect our trade secrets and other proprietary technology. These agreements may be breached and we may not have adequate remedies for any breach. Moreover, others may independently develop equivalent proprietary information, and third parties may otherwise gain access to our trade secrets and proprietary knowledge. Any disclosure of confidential information into the public domain or to third parties could allow our competitors to learn our trade secrets and use the information in competition against us, which could adversely affect our competitive advantage.

Risks Associated with our Common Stock

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

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

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competition;

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additions or departures of key personnel;

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our ability to execute our business plan;

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operating results that fall below expectations;

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loss of any strategic relationship;

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industry developments;

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economic and other external factors; and

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period-to-period fluctuations in our financial results.

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

Share ownership by our officers and directors make it more difficult for third parties to acquire us or effectuate a change of control that might be viewed favorably by other stockholders.

As of September 28, 2016, our executive officers and directors owned, in the aggregate, approximately 24.1% of our outstanding shares. As a result, if the officers and directors were to oppose a third party s acquisition proposal for, or a change in control of, the Company, the officers and directors may have sufficient voting power to be able to block or at least delay such an acquisition or change in control from taking place, even if other stockholders would support such a sale or change of control.

Our corporate governance documents, and certain corporate laws applicable to us, could make a takeover attempt, which may be beneficial to our stockholders, more difficult.

Our board of directors has the power, under our articles of incorporation, to issue additional shares of common stock and create and authorize the sale of one or more series of preferred stock without having to obtain stockholder approval for such action. As a result, our board of directors could authorize the issuance of shares of a series of preferred stock to implement a stockholders rights plan (often referred to as a poison pill) or could sell and issue preferred shares with special voting rights or conversion rights, which could deter or delay attempts by our stockholders to remove or replace management, and attempts of third parties either to engage in proxy contests or to acquire control of the Company. In addition, our charter documents:

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

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

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

We do not intend to declare dividends for the foreseeable future, as we anticipate that we will reinvest any future earnings in the development and growth of our business. Therefore, investors will not receive any funds unless they sell their common stock, and stockholders may be unable to sell their shares on favorable terms or at all. We cannot assure you of a positive return on investment or that you will not lose the entire amount of your investment in our common stock.

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

Our Certificate of Incorporation and amendments thereto authorize the issuance of 100,000,000 shares of common stock, par value $0.001 per share and 1,000,000 shares of preferred stock, par value $0.001 per share. The future issuance of all or part of our remaining authorized common stock may result in substantial dilution in the percentage of our common stock held by our then existing stockholders. We may value any common stock or preferred stock issued in the future on an arbitrary basis. The issuance of common stock or preferred stock for future services or acquisitions or other corporate actions may have the effect of diluting the percentage ownership of our stockholders and, depending upon the prices at which such shares are sold or issued, on their investment in our common stock and, therefore, could have an adverse effect on any trading market for our common stock.

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

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

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

The trading market for our common stock could be affected by whether and to what extent equity research analysts publish research or reports about us and our business. We cannot predict at this time how many research analysts will cover us and our common stock or whether they will publish research and reports on us. If one or more equity analysts cover us and publish research reports about our common stock, the price of our stock could decline if one or more securities analysts downgrade our stock or if those analysts issue other unfavorable commentary or cease publishing reports about us.

If any of the analysts who elect to cover us downgrade their recommendation with respect to our common stock, our stock price could decline rapidly. If any of these analysts ceases coverage of us, we could lose visibility in the market, which in turn could cause our common stock price or trading volume to decline and our common stock to be less liquid.

We are a smaller reporting company and we cannot be certain if the reduced disclosure requirements applicable to smaller reporting companies will make our common stock less attractive to investors.

We are currently a smaller reporting company, meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and have a public float of less than $75 million measured as of the last business day of our most recently completed second fiscal quarter and annual revenues of less than $50 million during the most recently completed fiscal year. Smaller reporting companies are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. Decreased disclosures in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects.

Risks Related to this Offering

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock before giving effect to this offering. Accordingly, if you purchase our common stock in this offering, you will incur immediate substantial dilution of approximately $ per share, representing the difference between the public offering price and our as adjusted net tangible book value as of June 30, 2016. Furthermore, if outstanding options or warrants are exercised, you could experience further dilution. See the information included under the heading Dilution.

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

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

Upon the completion of this offering, approximately shares of our outstanding common stock beneficially owned by our executive officers, directors and certain of our other existing stockholders will be subject to lock-up agreements with the underwriters of this offering that restrict the sale of shares of our common stock by those parties for a period of 90 days after the date of this prospectus supplement. However, all of the shares sold in this offering and the remaining shares of our common stock outstanding prior to this offering (which include certain shares that are held by our affiliates) will not be subject to lock-up agreements with the underwriters and, except to the extent such shares are held by our affiliates, will be freely tradable without restriction under the Securities Act. The market price of our common stock could decline as a result of sales by our stockholders in the market following completion of this offering or the perception that these sales could occur.

We 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.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

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

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. Many important factors, including those described under the heading Risk Factors beginning on page S-6 of this prospectus supplement, may adversely and materially affect our results as indicated in forward-looking statements. You should read this prospectus supplement, the accompanying prospectus, and the documents we incorporate by reference herein and therein completely and with the understanding that our actual future results may be materially different and worse from what we expect.

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

- our inability to generate any significant revenue or achieve profitability;
- our need to raise additional capital in the future;
- our expectations to expand our product development, research and sales and marketing capabilities could give rise to difficulties in managing our growth;
- our limited experience with direct sales and marketing;
- the possibility that we may not be able to continue to operate, as indicated by the “going concern” opinion from our auditors;
- our ability to successfully develop, manufacture, market, and sell our future products;
- our ability to timely obtain necessary regulatory clearances or approvals to distribute and market our future products;
- the acceptance by the marketplace of our future products;
- the highly competitive and rapid changing nature of the cancer diagnostics market;
- our ability to develop or procure antibodies for clinical use in our future products;
- our ability to translate preliminary clinical results to larger prospective screening populations;

- our reliance on third parties to manufacture and supply our intended products, and such manufacturers' dependence on third party suppliers;
- our dependence on third party distributors; and
- protection of our patents, intellectual property and trade secrets.

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

Forward-looking statements speak only as of the date they were made, and, except to the extent required by law or the rules of the NYSE MKT, we undertake no obligation to update or review any forward-looking statement because of new information, future events or other factors. You should, however, review the risks and uncertainties we describe in the reports we will file from time to time with the SEC after the date of this prospectus supplement. See the information included under the heading Where You Can Find More Information.

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

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $ million, or approximately $ million if the underwriters fully exercise their option to purchase additional shares, after deducting the underwriting discount 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 supplement, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of proceeds will vary depending on numerous factors, including the factors described under the heading Risk Factors beginning on page S-6 of this prospectus supplement. 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.

PRICE RANGE OF OUR COMMON STOCK

The following tables set forth the high and low sales prices for our common stock per quarter as reported by the NYSE MKT under the symbol VNRX. from February 6, 2015, and the high and low bid prices for our common stock per quarter as reported by the OTCBB for the period of January 1, 2014 to February 5, 2015 based on our fiscal year end of December 31. These prices for periods prior to February 6, 2015, represent quotations between dealers without adjustment for retail mark-up, markdown or commission and may not represent actual transactions.

Year Ended December 31, 2014	**High**	**Low**
First Quarter (Jan. 1 Mar. 31)	$3.25	$2.05
Second Quarter (Apr. 1 Jun. 30)	$2.75	$1.30
Third Quarter (Jul. 1 Sept. 30)	$9.28	$1.45
Fourth Quarter (Oct. 1 Dec. 31)	$4.32	$3.25

Year Ended December 31, 2015	**High**	**Low**
First Quarter (Jan. 1 Mar. 31)	$5.30	$3.75
Second Quarter (Apr. 1 Jun. 30)	$4.30	$2.81
Third Quarter (Jul. 1 Sept. 30)	$5.25	$2.90
Fourth Quarter (Oct. 1 Dec. 31)	$4.78	$3.35

Year Ended December 31, 2016	**High**	**Low**
First Quarter (Jan. 1 Mar. 31)	$4.43	$3.20
Second Quarter (Apr. 1 Jun. 30)	$4.19	$3.05
Third Quarter (July 1 Sept. 28)	$5.86	$3.05

On September 28, 2016, the last reported sale price of our common stock on the NYSE MKT was $5.61 per share. On September 28, 2016, there were approximately 177 holders of record of our common stock. The number of holders of record does not include shares held in street name through brokers.

DIVIDEND POLICY

We have not previously paid cash dividends on our common stock. It is our current intention to invest our cash flow and earnings in the growth of our business and, therefore, we have no plans to pay cash dividends for the foreseeable future. Investors should not purchase our common stock with the expectation of receiving cash dividends.

CAPITALIZATION

The following table sets forth our cash, cash equivalents and capitalization, as of June 30, 2016, as follows:

- on an actual basis;
- on an as adjusted basis, giving effect to the sale and issuance by us of shares of our common stock in this offering at the public offering price of $ per share, after deducting the underwriting discount and estimated offering expenses payable by us.

You should read this information together with our consolidated financial statements and related notes that are included elsewhere in this prospectus.

	As of June 30, 2016	
	Actual	**As Adjusted**
Cash, cash equivalents and short-term investments	$ 14,500,294	$
Debt obligations	$ (2,029,086)	$
Stockholders Equity:	$ 14,333,967	$
Preferred stock, par value $0.001 per share: 1,000,000 shares authorized; no shares issued and outstanding, actual or as adjusted	$ –	$ –
Common stock, par value $0.001 per share: 100,000,000 shares authorized, 23,521,219 shares issued and outstanding, actual; shares issued and outstanding, as adjusted	$ 23,521	$
Additional paid-in capital	$ 48,925,349	$
Accumulated other comprehensive loss	$ (133,216)	$ (133,216)
Accumulated Deficit	$ (34,481,687)	$
Total stockholders equity	$ 14,333,967	$

In the table above, the number of shares outstanding after this offering is based on 23,521,219 shares of our common stock outstanding as of June 30, 2016. The number of shares of our common stock outstanding after this offering excludes the following:

- 2,210,138 shares of our common stock issuable upon the exercise of common stock purchase warrants outstanding as of June 30, 2016, with a weighted average exercise price of approximately $2.35 per share;
- 2,455,300 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2016, with an exercise price of approximately $3.70 per share;

- 210,000 additional shares of common stock reserved for future issuance under our 2015 Stock Incentive Plan, as of June 30, 2016; and
- any shares issued upon the exercise by the underwriters of the option to purchase up to additional shares of common stock from us to cover over-allotments, if any.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of our common stock upon the closing of this offering.

Net tangible book value per share of our common stock is determined by subtracting our total liabilities from the amount of our total tangible assets (total assets less intangible assets) and then dividing the difference by the number of shares of our common stock deemed to be outstanding at that date. As of June 30, 2016, we had a net tangible book value of $13.7 million, or $0.58 per share of common stock.

Investors purchasing in this offering will incur immediate and substantial dilution. After giving effect to the issuance and sale by us of shares of common stock in this offering at the public offering price of $ per share, and after deducting underwriting discounts and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2016 would have been approximately $ million, or approximately $ per share. This amount represents an immediate increase in as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately $ per share to new investors purchasing shares of common stock in this offering. Dilution per share to new investors is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by new investors.

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

Public offering price per share		$
Net tangible book value per share as of June 30, 2016	$ 0.58	
Increase in as adjusted net tangible book value per share attributable to this offering		
As adjusted net tangible book value per share after this offering		
Dilution per share to new investors purchasing in this offering		$

The table above assumes that the underwriters do not exercise their option to purchase additional shares and that there are no exercises of any options or warrants outstanding as of June 30, 2016. If the underwriters fully exercise their option to purchase additional shares of our common stock, the as adjusted net tangible book value per share after giving effect to this offering would be $ per share, which amount represents an immediate increase in as adjusted net tangible book value of $ per share of our common stock to existing stockholders, and an immediate

dilution to new investors purchasing in this offering of $ per share.

The table above excludes the following shares:

- 2,210,138 shares of our common stock issuable upon the exercise of common stock purchase warrants outstanding as of June 30, 2016, with a weighted average exercise price of approximately $2.35 per share;
- 2,455,300 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2016, with an exercise price of approximately $3.70 per share;
- 210,000 additional shares of common stock reserved for future issuance under our 2015 Stock Incentive Plan, as of June 30, 2016; and
- any shares issued upon the exercise by the underwriters of the option to purchase up to additional shares of common stock from us to cover over-allotments, if any.

DESCRIPTION OF COMMON STOCK

General

Our authorized capital stock consists of 100,000,000 shares of our common stock, par value $0.001 per share, and 1,000,000 shares of preferred stock, par value $0.001 per share, all of which are presently undesignated. As of September 28, 2016, there were 23,608,719 shares of our common stock outstanding, which was held of record by 177 stockholders, and there were no shares of our preferred stock outstanding.

Common Stock

Our common stock was quoted on the OTC Bulletin Board beginning on April 12, 2007 under the symbol SNDC.OB. Effective October 11, 2011 our symbol was changed to VNRX.OB to reflect the Company s name change. Effective February 6, 2015, we up-listed our common stock onto the NYSE MKT and it currently trades under the symbol VNRX.

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, subject to preferences that may be applicable to any outstanding shares of our preferred stock. 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 and after payment of any preferential amounts to which holders of shares of any series of our preferred stock that may be outstanding in the future, may be entitled. The holders of our common stock have no preemptive or other subscription rights, and there are no conversion rights or redemption or sinking fund provisions with respect to such shares. All of the outstanding shares of our common stock are, and the shares of our common stock when issued will be, fully paid and non-assessable.

On September 28, 2016, the last reported sale price of our common stock on the NYSE MKT was $5.61.

UNDERWRITING

The underwriters named below have agreed to buy, subject to the terms and conditions of the underwriting agreement, the number of shares of common stock listed opposite their respective name below. The underwriters are committed to purchase and pay for all of the shares, if any are purchased, other than those shares covered by the over-allotment option we describe below. The underwriting agreement also provides that if the underwriters default, this offering of our shares of common stock may be terminated.

Underwriter	**Number of Shares**
National Securities Corporation	
Total	

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by it, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer s certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The underwriters have advised us that they propose to initially offer the shares to the public at the public offering price set forth on the cover of this prospectus. The underwriters propose to offer the shares to certain dealers at the same price less a concession of not more than $ per share. After the initial offering of the shares, the underwriters may from time to time vary the offering prices and other selling terms.

Over-allotment Option to Purchase Additional Shares

We have granted to National Securities Corporation an option to purchase up to an additional shares from us at the same price to the public, and with the same underwriting discount, as set forth in the table below. National Securities Corporation may exercise this option any time during the 30-day period after the date of this prospectus, but only to cover over-allotments, if any, including as described below.

Indications of Interest

Certain existing stockholders, including Lagoda, as well as certain officers and directors of VolitionRx have indicated an interest in purchasing up to an aggregate of shares of our common stock in this offering at the public offering price. Because this indication of interest is not a binding agreement or commitment to purchase, such potential investors may elect not to purchase any shares in this offering. The underwriters will receive a reduced underwriting discount of 2% on any shares purchased by certain existing stockholders, including Lagoda, and 0% on any shares purchased by officers and directors of VolitionRx in this offering.

Discounts and Commissions

The following table summarizes the public offering price, underwriting discount and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the over-allotment option. Assuming that certain existing stockholders, including Lagoda, purchase an aggregate of shares at a 2% discount, and certain officers and directors of VolitionRx purchase an aggregate of shares at a 0% discount, we estimate the total expenses payable by us for this offering to be up to approximately $ which amount includes (i) the underwriting discount of $ ($ if the underwriter s over-allotment option is exercised in full, (ii) reimbursement of the accountable expenses of the underwriter up to $60,000, including the legal fees of the underwriter being paid by us, and (iii) other estimated company expenses of approximately $, which includes legal, accounting, printing costs and various fees associated with the registration and listing of our shares. In no event will the aggregated expenses reimbursed to the underwriters exceed $60,000. The fees and expenses of the underwriters that we have agreed to reimburse are not included in the underwriting discounts set forth in the table below. The underwriting discount was determined through arms length negotiations between us and the underwriters.

	Per Share	Total No Exercise	Total Full Exercise
Public offering price			
Underwriting discount to be paid to the underwriter by us			
Proceeds, before expenses, to us			

We estimate that the total expenses of the offering, excluding underwriting discounts and commissions, will be $. This includes $60,000 of fees and expenses of the underwriters. These expenses are payable by us.

Market for Shares

Our common stock is listed on the NYSE MKT under the symbol VNRX.

Indemnification and Contribution

We have agreed to indemnify the underwriters against certain liabilities, including civil liabilities under the Securities Act of 1933, as amended, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

Lock-up Agreements

Our directors and executive officers have agreed to certain restrictions on their ability to sell additional shares of common stock for a period of 90 days after the date of this prospectus. They have agreed, subject to specified exceptions, not to offer, pledge, sell, contract to sell, grant any option for to purchase or otherwise dispose of, any shares of common stock, options or warrants to acquire shares of common stock, or any related security or instrument, without the prior written consent of National Securities Corporation. The agreement provides exceptions for transfers (i) as a bona fide gifts or gifts; (ii) to any immediate family member; (iii) to any trust for the direct or indirect benefit of the stockholder or the immediate family member of the stockholder; (iv) by will or intestacy; (v) to a charity or educational institution; (vi) if the stockholder is an entity, to the limited partners, members or stockholders of such entity; (vii) to the stockholder s affiliates, or to any investment fund or other entity controlled or managed by, directly or indirectly, or under common control or management with, the stockholder or (viii) if the stockholder is a trust,

transfers to the beneficiary of such trust.

Stabilization

To facilitate the offering, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the shares of common stock during and after the offering. Specifically, the underwriters may over-allot or otherwise create a short position in the shares for their own account by selling more shares than have been sold to them by us. The underwriters may elect to cover any such short position by purchasing shares in the open market or by exercising the over-allotment option granted to the underwriters. In addition, the underwriters may stabilize or maintain the price of the shares by bidding for or purchasing shares in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions allowed to broker-dealers participating in the offering are reclaimed if shares previously distributed in the offering are repurchased, whether in connection with stabilization transactions or otherwise. The effect of these transactions may be to stabilize or maintain the market price of the shares at a level above that which might otherwise prevail in the open market. The imposition of a penalty bid may also affect the price of the shares to the extent that it discourages resale of the shares. The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Passive Market Making

In connection with this offering, the underwriters (and selling group members) may also engage in passive market making transactions in the shares. Passive market making consists of displaying bids limited by the prices of independent market makers and effecting purchases limited by those prices in response to order flow. Rule 103 of Regulation M promulgated by the SEC limits the amount of net purchases that each passive market maker may make and the displayed size of each bid. Passive market making may stabilize the market price of the shares at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Electronic Offer, Sale and Distribution of Shares

A prospectus in electronic format may be made available on the websites maintained by the underwriters participating in this offering and the underwriters may distribute prospectuses electronically. In those cases, prospective investors may view offering terms and a prospectus online and place orders online or through their financial advisors. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus, or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or the underwriters, and should not be relied upon by investors.

Offer Restrictions Outside the United States

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Notice to Prospective Investors in the European Economic Area

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive, each referred to herein as a Relevant Member State, with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, referred to herein as the Relevant Implementation Date, no offer of any shares which are the subject of the offering contemplated by this prospectus has been or will be made to the public in that Relevant Member State other than any offer where a prospectus has been or will be published in relation to such shares that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the relevant competent authority in that Relevant Member State in accordance with the Prospectus Directive, except that with effect from and including the Relevant Implementation Date, an offer of such shares may be made to the public in that Relevant Member State:

- to any legal entity which is a "qualified investor" as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares shall require the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that (A) it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive, and (B) in the case of any shares acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, the shares acquired by it in the offering have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors as defined in the Prospectus Directive, or in circumstances in which the prior consent of the representatives has been given to the offer or resale. In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the representatives has been obtained to each such proposed offer or resale.

The Company, the representatives and their affiliates will rely upon the truth and accuracy of the foregoing representation, acknowledgement and agreement.

This prospectus has been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of shares. Accordingly any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus may only do so in circumstances in which no obligation arises for the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither the Company nor the underwriters have authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for the Company or the underwriters to publish a prospectus for such offer.

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

The above selling restriction is in addition to any other selling restrictions set out in this prospectus.

Notice to Prospective Investors in the United Kingdom

In addition, this prospectus and any other material in relation to the shares described herein is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2 (1) (e) of the Prospective Directive that also (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, referred to herein as the Order,, (ii) fall within Article 49(2)(a) to (d) of the Order and (iii) are persons to whom it may otherwise lawfully be communicated (all such persons together being referred to as relevant persons). The shares are only available to, and any invitation, offer or agreement to engage in investment activity with respect to such shares will be engaged in only with, relevant persons. This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other person in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this prospectus or any of its contents.

The distribution of this prospectus in the United Kingdom to anyone not falling within the above categories is not permitted and may contravene the United Kingdom Financial Services and Markets Act 2000. No person falling outside those categories should treat this prospectus as constituting a promotion to him, or act on it for any purposes whatever. Recipients of this prospectus are advised that we, the underwriters and any other person that communicates this prospectus are not, as a result solely of communicating this prospectus, acting for or advising them and are not responsible for providing recipients of this prospectus with the protections which would be given to those who are clients of any aforementioned entities that is subject to the rules and regulations of the Financial Services Authority.

Notice to Prospective Investors in Switzerland

This document as well as any other material relating to the shares of our common stock that are the subject of the offering contemplated by this prospectus do not constitute an issue prospectus pursuant to Article 652a or Article 1156 of the Swiss Code of Obligations. Our common stock will not be listed on the SWX Swiss Exchange and, therefore, the documents relating to our common stock, including, but not limited to, this document, do not claim to comply with the disclosure standards of the listing rules of SWX Swiss Exchange and corresponding prospectus schemes annexed to the listing rules of the SWX Swiss Exchange.

Our common stock is being offered in Switzerland to a small number of selected investors only, without any public offer, and only to investors who do not purchase shares of our common stock with the intention to distribute them to the public. The investors will be individually approached by us from time to time.

This document as well as any other material relating to our common stock is personal and confidential and does not constitute an offer to any other person. This document may only be used by those investors to whom it has been handed out in connection with the offering described herein and may neither directly nor indirectly be distributed or made available to other persons without our express consent. It may not be used in connection with any other offer and shall in particular not be copied and/or distributed to the public in (or from) Switzerland.

Notice to Prospective Investors in Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or(the SFA, (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Notice to Prospective Investors in Panama

The common shares have not been registered with the National Securities Commission, nor has the offer, sale or transactions thereof been registered. The common shares are not under the supervision of the National Securities Commission.

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 the underwriters by Duane Morris, LLP, Philadelphia, Pennsylvania.

EXPERTS

Sadler, Gibb & Associates, LLC, independent registered public accounting firm, has audited our financial statements as of December 31, 2015 and 2014 included in our Annual Report on Form 10-K for the year ended December 31, 2015, as set forth in their report, which is incorporated by reference in this prospectus. Our financial statements are incorporated by reference in reliance on Sadler, Gibb & Associates, LLC s report, given on their authority as experts in accounting and auditing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

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

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

We incorporate by reference, as of their respective dates of filing, the documents listed below that we have filed with the SEC and any additional documents that we may file in the future with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including any documents filed after the date of the initial registration statement of

which this prospectus is a part until the offering of the security covered by this prospectus has been completed, other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules:

- our Annual Report on Form 10-K for the year ended December 31, 2015, as filed with the SEC on March 11, 2016;
- our Quarterly Reports on Form 10-K for the quarters ended March 31, 2016 and June 30, 2016, as filed with the SEC on

  May 13, 2016 and August 11, 2016, respectively;
- our Definitive Proxy Statement on Schedule 14A, as filed with the SEC on August 22, 2016;
- our Current Reports on Form 8-K filed with the SEC on January 5, 2016, March 18, 2016 and June 24, 2016; and
- the description of our common stock contained in our registration statement on Form 8-A as filed with the SEC on

  February 3, 2015, as updated or amended in any amendment or report filed for such purpose.

We hereby undertake to provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus, but not delivered with the prospectus, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates. To request such materials, please contact Mr. Rodney Rootsaert, our Corporate Secretary at c/o Corporate Secretary, VolitionRx Limited, 1 Scotts Road, #24-05 Shaw Centre, Singapore, 228208, by email at notice@volitionrx.com, or by facsimile at +32 8172 5651. 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 any 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 that date.

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 internet site at http://www.sec.gov, which contains reports, proxy and information statements, and other information regarding issuers that file electronically.

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

$50,000,000

VOLITIONRX LIMITED

1 Scotts Road

#24-05 Shaw Centre

Singapore 228208

+1 (646) 650-1351

Common Stock

Preferred Stock

Warrants

We may, from time to time in one or more offerings, sell up to $50,000,000 in the aggregate, inclusive of any exercise price thereof, of:

- shares of our common stock;
- shares of our preferred stock;
- warrants to purchase shares of our common stock and/or preferred stock; or
- any combination of the foregoing.

This prospectus provides a general description of the securities we may offer. 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 or underwriters 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 MKT under the symbol VNRX.

As of September 3, 2015, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately $47,028,724, based on 18,059,715 shares of outstanding common stock, of which approximately 5,175,133 shares were held by affiliates, and a price of $3.65 per share, which was the last reported sale price of our common stock on the NYSE MKT on such date. 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 $75.0 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 2.

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 September 18, 2015

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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 $50,000,000. 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 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. 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 any 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 that date.

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 in this prospectus refer to VolitionRx Limited and its subsidiaries. Our fiscal year ends on December 31 of each calendar year. Nucleosomics®, NuQ® 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.

THE COMPANY

We are a clinical stage life sciences company focused on developing blood-based diagnostic tests that meet the need for accurate, fast, inexpensive and scalable tests for detecting and diagnosing cancer and other diseases. We have developed twenty blood assays to date that can be used individually or in combination to generate a profile which forms the basis of a blood test for a particular cancer or disease. We intend to commercialize our products in the future through various channels within the European Union, the United States and eventually throughout the rest of the world.

We do not anticipate earning significant revenues until such time as we are able to fully market our intended products on the clinical in-vitro diagnostics, or IVD, market. For this reason, our auditors stated in their report on our most recent audited financial statements that our losses and negative cash flow from operations raise substantial doubt that we will be able to continue as a going concern without further financing. 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.

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*. The information contained on our website is not incorporated by reference into this prospectus. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

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.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus and the documents incorporated by reference herein include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act) and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). All statements other than statements of historical fact contained in this prospectus, 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 anticipates, believes, can, continu

could, estimates, expects, intends, may, plans, potential, predicts, should, or will or the negat 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 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 and in any documents incorporated by reference herein. 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.

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 will in fact occur. You should not place undue reliance on these estimates and forward-looking 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 the 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 $50,000,000 in the aggregate, inclusive of any exercise price thereof, of:

- shares of our common stock, par value $0.001 per share;
- shares of our preferred stock, par value $0.001 per share;
- warrants to purchase shares of our common stock and/or preferred stock; or
- any combination of the foregoing, either individually or as units consisting of one or more of the foregoing, each on terms to be determined at the time of sale.

The common stock, the preferred stock and the warrants 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, we will provide you with a prospectus supplement that describes the specific amounts, prices and terms of the securities we offer. The securities involve various risks that we will describe in the section entitled Risk Factors that will be included in each prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

Common Stock

We have authority under our amended and restated certificate of incorporation to issue up to 100,000,000 shares of our common stock, par value $0.001 per share. As of September 3, 2015, there were 18,059,715 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, subject to preferences that may be applicable to any outstanding shares of our preferred stock. 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 and after payment of any preferential amounts to which holders of shares of any series of our preferred stock that may be outstanding in the future, may be entitled. The holders of our common stock have no preemptive or other subscription rights, and there are no conversion rights or redemption or sinking fund provisions with respect to such shares. All of the outstanding shares of our common stock are, and the shares of our common stock when issued will be, fully paid and non-assessable.

Preferred Stock

We have authority under our restated certificate of incorporation, as amended, to issue up to 1,000,000 shares of our preferred stock, par value $0.001 per share, all of which are presently undesignated. As of September 3, 2015, there were no shares of our preferred stock issued and outstanding.

Our board of directors may from time to time issue the undesignated preferred stock in one or more series and, in connection with the creation of each such series, fix the number of shares of such series and the designations, powers, preferences, rights, qualifications, limitations, and restrictions of such series, to the fullest extent permitted under the Delaware General Corporation Law. Any preferred stock issued by us in the future may decrease the amount of earnings and assets available for distribution to holders of our common stock or adversely affect the rights and power, including voting rights, of the holders of our common stock without any further vote or action by our stockholders. In addition, the rights of holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued by us in the future.

DESCRIPTION OF THE WARRANTS

We may issue warrants to purchase shares of our common stock and/or our preferred stock. The warrants may be issued independently or together with shares of our common stock and/or our preferred stock and may be attached to or separate from the shares of our common stock and/or our preferred stock. The warrants are to be issued under warrant agreements to be entered into between us and/or a bank or trust company, as warrant agent, all as shall be set forth in the prospectus supplement relating to warrants being offered pursuant to such prospectus supplement. The following description of the warrants will apply to the warrants offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of warrants may specify different or additional terms.

Warrants

The applicable prospectus supplement will describe the following terms of warrants offered:

- the title of the warrants;
- the securities for which the warrants are exercisable;
- 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 securities;
- 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 and/or our preferred stock;
- if applicable, the date on and after which the warrants and the related common stock and/or preferred stock will be separately transferable;
- a discussion of any material federal income tax consequences of holding or exercising the warrants; and
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

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.

The exercise price payable and the number of shares of our common stock and/or our preferred stock purchasable upon the exercise of each warrant will be subject to adjustment in certain events, including the issuance of a stock dividend to holders of our common stock and/or our preferred stock or a stock split, reverse stock split, combination, subdivision or reclassification of our common stock and/or our preferred stock. In lieu of adjusting the number of shares of our common stock and/or our preferred stock purchasable upon exercise of each warrant, we may elect to adjust the number of warrants. No fractional shares will be issued upon exercise of the warrants, but we will pay the cash value of any fractional shares otherwise issuable. Notwithstanding the foregoing, in case of any consolidation, merger, or sale or conveyance of our property as an entirety or substantially as an entirety, the holder of each outstanding warrant shall have the right to the kind and amount of shares of stock and other securities and property, including cash, receivable by a holder of the number of shares of our common stock and/or our preferred stock into which the warrant was exercisable immediately prior to such transaction.

Exercise of Warrants

Each warrant will entitle the holder to purchase for cash such shares of our common stock and/or our preferred 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 corporate trust office of the warrant agent or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the shares of our common stock and/or our preferred 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.

PLAN OF DISTRIBUTION

We may sell our securities from time to time in any manner permitted by the Securities Act of 1933, as amended, or 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 reallowed or paid to dealers; and
- any securities exchanges on which such securities may be listed.

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

- transactions on the NYSE MKT 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 MKT. 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 Securities Exchange Act of 1934, as amended. 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

The validity of the securities being offered hereby 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, 2014 and 2013 and for each of the years in the two-year period ended December 31, 2014 have been incorporated by reference herein and in the registration statement in reliance upon the reports of Sadler, Gibb and 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 and Associates, LLC dated March 18, 2015 notes that our losses and negative cash flow from operations 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.

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 of the initial registration statement of which this prospectus is a part until the offering of the security covered by this prospectus has been completed, other than, in each case, documents or information deemed to have been "furnished" and not "filed" in accordance with SEC rules:

- our Annual Report on Form 10-K for the year ended December 31, 2014, as filed with the SEC on March 18, 2015;
- our Quarterly Reports on Form 10-Q for the fiscal quarter ended March 31, 2015, as filed with the SEC on May 12, 2015, and for the fiscal quarter ended June 30, 2015, as filed with the SEC on August 11, 2015;
- our Current Reports on Form 8-K as filed with the SEC on each of January 2, 2015, February 6, 2015 and August 17, 2015;
- the description of our common stock contained in our registration statement on Form 8-A as filed with the SEC on February 3, 2015, as updated or amended in any amendment or report filed for such purpose.

We hereby undertake to provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus, but not delivered with the prospectus, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates. To request such materials, please contact Mr. Rodney Rootsaert, our Corporate Secretary at c/o Corporate Secretary, VolitionRx Limited, 1 Scotts Road, #24-05 Shaw Centre, Singapore, 228208, by email at notice@volitionrx.com, or by facsimile at +32 8172 5651. 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 any 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 that date.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC relating to the common stock, the preferred stock and the warrants offered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. We have omitted parts of the registration statement, as permitted by the rules and regulations of the SEC. 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 preferred stock and the warrants 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 Internet web site maintained by the SEC at the following address: http://www.sec.gov.

VOLITIONRX LIMITED

Shares of Common Stock

PROSPECTUS SUPPLEMENT

Sole Book Running Manager

NATIONAL SECURITIES CORPORATION

, 2016