VOLITIONRX LTD
Form 424B5
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Registration No. 333-206781

SUBJECT TO COMPLETION, DATED MARCH 17, 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 March 16, 2016, the last reported sale price of our common stock was $3.54 per share.

As of March 16, 2016, the aggregate market value of our outstanding common stock held by non-affiliates was approximately $47,602,968, based on 18,863,272 shares of outstanding common stock, of which 5,416,106 shares are held by affiliates, and a per share price of $3.54 based on the closing sale price of our common stock as quoted on the NYSE MKT on March 16, 2016. As of the date hereof, including the securities being offered hereunder, we have offered securities with an aggregate market value of approximately $ pursuant to General Instruction I.B.6. of Form S-3 during the prior 12 calendar month period.

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)]See Underwriting for additional disclosure regarding underwriting discounts, commissions and estimated offering expenses.

Cosmo Pharmaceuticals SA, or Cosmo, has indicated an interest in purchasing $3.0 million 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, Cosmo may elect not to purchase any shares in this offering. The underwriters will receive the same underwriting discount on any shares purchased by Cosmo as they will on any other shares sold to the public in this offering. See the information included under the headings Prospectus Supplement Summary Recent Developments and Underwriting Cosmo Pharmaceuticals SA.

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 , 2016.

Sole Book Running Manager

RAYMOND JAMES

The date of this prospectus supplement is March , 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.

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, including 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.

Unless otherwise stated in this prospectus supplement and the accompanying prospectus, references to VolitionRx, we, us, or our refer to VolitionRx Limited. 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 supplement and the accompanying prospectus are the property of their respective owners.

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 twenty eight 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 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 samples are being collected over 24 months from August 2014, 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 plan to certify two new biomarkers quarterly in 2016 as well as our symptomatic diagnostic panel 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 2016 and pursue FDA clearance for use of our CRC test as an adjunct test in 2017 and for lung and pancreatic cancer in 2018. We intend to begin PMA purposed United States based trials in 2016 or 2017 and pursue FDA approval for our test as a screening test upon completion.

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 plan to seek distribution partners for the major Asian markets in 2016.

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

On March 11, 2016, we entered into a Right of Negotiation Agreement with Cosmo, the effectiveness of which is contingent upon the closing of this offering and Cosmo s investment of $3.0 million in this offering. In the event Cosmo elects to make this investment, the agreement will provide Cosmo with certain rights of negotiation and rights of refusal with respect to the development or commercialization of certain of our products in or for the United States.

Pursuant to the agreement, the right of first negotiation provides Cosmo a forty-five day exclusive right to good faith negotiations for certain of our products that we or our affiliates intend to develop or commercialize in or for the United States. If we are unable to reach an agreement with Cosmo during the negotiation period, we may proceed with such development and commercialization, subject to the right of refusal described below, in the event that a third party is involved.

Pursuant to the agreement, the right of first refusal provides Cosmo a thirty day right to match any license or other agreement with a third party proposed to be entered into by us or our affiliates with respect to the development or commercialization of certain of our products in or for the United States. If Cosmo fails to match the proposed terms with the third party during the thirty day period, we are free to complete the transaction with the third party and Cosmo will have no further rights with respect to such transaction.

In the event Cosmo elects to make this investment in this offering, and unless terminated earlier by mutual written agreement of the parties, the agreement will automatically expire on the five year anniversary of Cosmo s investment in this offering.

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:	Cosmo has indicated an interest in purchasing $3.0 million of shares of our common stock in this offering. See the information included under the headings Prospectus Supplement Summary Recent Developments and Underwriting Cosmo Pharmaceuticals SA. Because this indication of interest is not a binding agreement or commitment to purchase, Cosmo may elect not to purchase any shares in this offering. The underwriters will receive the same underwriting discount on any shares purchased by Cosmo as they will on any other shares sold to the public 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 18,763,272 shares of our common stock outstanding as of December 31, 2015, and excludes:

- 2,612,739 shares of our common stock issuable upon the exercise of common stock purchase warrants outstanding as of December 31, 2015, with a weighted average exercise price of approximately $2.07 per share;
- 1,830,300 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2015, with an exercise price of approximately $3.53 per share; and
- 1,000,000 additional shares of common stock reserved for future issuance under our 2015 Stock Incentive Plan, as of December 31, 2015.

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

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

We have determined that we have material weaknesses in our internal control over financial reporting as of December 31, 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.

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:

- Interruption of supply resulting from modifications to or discontinuation of a supplier's operations;
- Delays in product shipments resulting from uncorrected defects, reliability issues, or a supplier's variation in a component;
- A lack of long-term supply arrangements for key components with our suppliers;
- Inability to obtain adequate supply in a timely manner, or to obtain adequate supply on commercially reasonable terms;
- Difficulty and cost associated with locating and qualifying alternative suppliers for components in a timely manner;
-

Production delays related to the evaluation and testing of products from alternative suppliers, and corresponding regulatory qualifications;
- Delay in delivery due to suppliers prioritizing other customer orders over ours;
- Damage to our brand reputation caused by defective components produced by the suppliers; and
- 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 three 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 pending patent application in the United States and five patents granted in other countries. 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 March 11, 2016, our executive officers and directors owned, in the aggregate, approximately 28.6% 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 whether any 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 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 . 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 180 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 the federal securities laws. 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.

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. 16, 2016)	$4.43	$3.21

On March 16, 2016, the last reported sale price of our common stock on the NYSE MKT was $3.54 per share. On March 16, 2016, there were approximately 186 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 December 31, 2015, 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 December 31, 2015	
	Actual	**As Adjusted**
Cash, cash equivalents and short-term investments	$ 5,916,006	$
Debt obligations	$ (1,667,522)	$
Stockholders Equity:	$ 6,044,319	$
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, 18,763,272 shares issued and outstanding, actual; shares issued and outstanding, as adjusted	$ 18,763	$
Additional paid-in capital	35,149,420	
Accumulated other comprehensive loss	$ (84,171)	$ (84,171)
Accumulated Deficit	$ (29,039,693)	$
Total stockholders equity	$ 6,044,319	$

In the table above, the number of shares outstanding after this offering is based on 18,763,272 shares of our common stock outstanding as of December 31, 2015. The number of shares of our common stock outstanding after this offering excludes the following:

- 2,612,739 shares of our common stock issuable upon the exercise of common stock purchase warrants outstanding as of December 31, 2015, with a weighted average exercise price of approximately $2.07 per share;

- 1,830,300 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2015, with an exercise price of approximately $3.53 per share;
- 1,000,000 additional shares of common stock reserved for future issuance under our 2015 Stock Incentive Plan, as of December 31, 2015; 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 December 31, 2015, we had a net tangible book value of $5.3 million, or $0.28 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 December 31, 2015 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 December 31, 2015	$ 0.28	
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 December 31, 2015. 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:

- 2,612,739 shares of our common stock issuable upon the exercise of common stock purchase warrants outstanding as of December 31, 2015, with a weighted average exercise price of approximately $2.07 per share;
- 1,830,300 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2015, with an exercise price of approximately $3.53 per share;
- 1,000,000 additional shares of common stock reserved for future issuance under our 2015 Stock Incentive Plan, as of December 31, 2015; 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 March 16, 2016, there were 18,863,272 shares of our common stock outstanding, which was held of record by 186 stockholders, and there were no shares of our preferred stock outstanding.

Common Stock

Our common stock was quoted on the OTC Bulletin Board from 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 March 16, 2016, the last reported sale price of our common stock on the NYSE MKT was $3.54.

UNDERWRITING

Raymond James & Associates, Inc. is acting as representative of each of the underwriters named below. Subject to the conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us the number of shares of our common stock set forth opposite its name below:

Name	**Number of Shares**
Raymond James & Associates, Inc.	
Total:	

The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' option described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers at that price less a concession not in excess of $ per share. After the initial offering of the shares of common stock, the offering price and other selling terms may be changed by the underwriters. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

Option to Purchase Additional Shares of Common Stock

We have granted the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

Cosmo Pharmaceuticals SA

Cosmo has indicated an interest in purchasing $3.0 million 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, Cosmo may elect not to purchase any shares in this offering. On March 11, 2016, we entered into a Right of Negotiation Agreement with Cosmo, the effectiveness of which is contingent upon the closing of the offering and Cosmo s investment of $3.0 million. In the event Cosmo elects to make this investment, the agreement will provide Cosmo with certain rights of negotiation and rights of refusal with respect to the development or commercialization of certain of our products in or for the United States. The underwriters will receive the same underwriting discount on any shares purchased by Cosmo as they will on any other shares sold to the public in this offering.

Discounts and Expenses

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional shares of common stock.

	Per Share	Total No Exercise	Total Full Exercise
Public offering price			
Underwriting discounts and commissions:			
Proceeds, before expenses			

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately $. We have agreed to reimburse the underwriters for certain fees and expenses of the underwriters incurred in connection with the offering, up to $100,000, which includes fees and expenses of the underwriters legal counsel.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

Lock-Up Agreements

In connection with this offering, subject to specified exceptions, we and all of our directors and officers, have agreed that, subject to certain exceptions, without the prior written consent of Raymond James as representative on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of the final prospectus relating to this offering:

- offer, sell, contract to sell, pledge, grant any option to purchase, contract to purchase or purchase any option or contract to sell, grant any option, right or warrant, lend, make any short sale or otherwise transfer or dispose

of, directly or indirectly, any shares of our stock or options, warrants or other securities with respect to our stock; or

- exercise or seek to exercise any rights of any nature to require the Company to register the sale, transfer or disposition of any shares of our stock or otherwise participate as a selling securityholder in any manner in any registration effect by the Company.

The preceding restrictions apply without regard to whether any such transaction described above is to be settled by delivery of common stock or other securities, in cash or otherwise. In addition, we and each such person agree that, without the prior written consent of the representative, we and each such person will not, during the period ending 180 days after the date of this prospectus, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions described in the immediately preceding paragraph do not apply to transfers of shares of common stock or any security convertible into common stock:

- as a bona fide gift or gifts;
- by will or intestate succession;
- to any trust for the direct or indirect benefit of the stockholder or immediate family of the stockholder;
- to a charity or educational institution;
- the transfer to affiliates, limited partners, members or stockholders of the signatory; or
- to any investment fund or other entity controlled or managed by, directly or indirectly, or under common control or management with, the signatory;

provided that in the case of any transfer or distribution as described in the bullet points above, such transfer shall not involve a disposition for value and each recipient or transferee agrees to be subject to the restrictions described in the immediately preceding paragraph.

The 180 day restricted period described in the preceding paragraph will be extended if:

- during the last 17 days of the 180 day restricted period we issue an earnings release or material news event relating to us occurs, or
- prior to the expiration of the 180 day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180 day period,

in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the announcement of the material news or material event.

Stabilization

Until this offering is completed, rules of the SEC may limit the ability of the underwriters and various selling group members to bid for and purchase the shares of our common stock. As an exception to these rules and in accordance with Regulation M under the Exchange Act, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock in order to facilitate the offering of the common stock, including: short sales; syndicate covering transactions; imposition of penalty bids; and purchases to cover positions created by short sales.

Stabilizing transactions may include making short sales of shares of our common stock, which involve the sale by the underwriters of a greater number of shares than it is required to purchase in this offering and purchasing shares of common stock from us by exercising the option or in the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' option referred to above, or may be "naked" shorts, which are short positions in excess of that amount.

Each underwriter may close out any covered short position either by exercising its option, in whole or in part, or by purchasing shares of common stock in the open market after the distribution has been completed. In making this determination, each underwriter will consider, among other things, the price of shares of our common stock available for purchase in the open market compared to the price at which the underwriter may purchase shares of our common stock pursuant to the underwriters' option.

A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of shares of our common stock in the open market after pricing that could adversely affect investors who purchased in this offering. To the extent that the underwriters create a naked short position, they will purchase shares of our common stock in the open market to cover the position after the pricing of this offering.

The underwriters also may impose a penalty bid on selling group members. This means that if the underwriters purchase shares of our common stock in the open market in stabilizing transactions or to cover short sales, the underwriters can require the selling group members that sold those shares as part of this offering to repay the selling concession received by them.

As a result of these activities, the price of shares of our common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them without notice at any time. The underwriters may carry out these transactions on the NYSE MKT or otherwise.

The underwriters are not required to engage in these activities and may end any of these activities at any time.

Relationships

Certain of the underwriters and their affiliates may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates, and for the selling stockholders and their affiliates, in the ordinary course of their business, for which they will receive customary fees and commissions, as applicable, and reimbursement for out-of-pocket expenses. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Listing

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

Electronic Prospectus

A prospectus in electronic format may be available on the Internet sites or through other online services maintained by one or more of the underwriters and selling group members participating in this offering, or by their affiliates. In those cases, prospective investors may view offering terms online and, depending upon the underwriter or the selling group member, prospective investors may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations.

Other than the prospectus in electronic format, the information on any underwriter's or any selling group member's website and any information contained in any other website maintained by the underwriters or any selling group member 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 any underwriters or any selling group member in its capacity as underwriter or selling group member and should not be relied upon by investors.

Selling Restrictions

Other than in the United States and as described below, no action has been taken by us or the underwriters that would permit a public offering of the shares of common stock offered by this prospectus in any jurisdiction where action for that purpose is required. The shares of common stock 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 shares of common stock 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 shares of common stock offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, each a Member State, each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Member State it has not made and will not make an offer of

securities to the public in that Member State, except that it may, with effect from and including such date, make an offer of securities to the public in that Member State:

- at any time to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- at any time to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
- to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the book-running managers for any such offer; or
- at any time in any other circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of the above, the expression "offer of securities to the public" in relation to any securities in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in that Member State.

Israel

In the State of Israel, the shares offered hereby may not be offered to any person or entity other than the following, all of whom must acquire the securities for their own account and not for purposes of distribution and/or sale to others:

- a fund for joint investments in trust (i.e., mutual fund), as such term is defined in the Law for Joint Investments in Trust, 5754-1994, or a management company of such a fund;
- a provident fund as defined in the Control of Financial Services law (Provident Funds), 5765-2005;
- an insurer, as defined under the Insurance Business (Control) Law 5741-1981;
- a banking entity or satellite entity, as such terms are defined in the Banking Law (Licensing), 5741-1981, other than a joint services company, acting for their own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- a portfolio manager, as such term is defined in Section 8(b) of the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- an investment advisor, as such term is defined in Section 7(c) of the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account;
- a member of the Tel Aviv Stock Exchange, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law 1968;
- an underwriter fulfilling the conditions of Section 56(c) of the Securities Law 1968, purchasing for itself;
- a venture capital fund (defined as an entity primarily involved in investments in companies which, at the time of investment, (i) are primarily engaged in research and development or manufacture of new technological products or processes and (ii) where the risk of investment is higher than what is customary for other investments); or
- a corporation primarily engaged in capital markets activities and which is wholly owned by investors listed in Section 15A(b) of the Securities Laws 1968.

Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

United Kingdom

This prospectus and any other material in relation to the shares described herein is only being distributed to, and is only directed at, (i) persons who are outside the United Kingdom, (ii) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order, or (iii) high net worth entities, and other persons to whom it may be lawfully communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as relevant persons). The shares are only available to, and any invitation, offer or agreement to purchase or otherwise acquire 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.

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

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 Mintz Levin Cohn Ferris Glovsky and Popeo P.C., New York, New York.

EXPERTS

Sadler, Gibb & Associates, LLC, independent registered public accounting firm, has audited our financial statements 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 Current Report on Form 8-K filed with the SEC on January 5, 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:

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shares of our common stock;

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shares of our preferred stock;

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warrants to purchase shares of our common stock and/or preferred stock; or

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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;
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