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

FORM 10-K

| ANNUAL REPORT PURSUANT TO SECTION I | 3 OR 15(d) OF THE SECURITIES EXCHANGE ACT O | F 1934 |
|---|---|--|
| | For the Fiscal Year Ended <u>December 31, 2024</u> | |
| ☐ TRANSITION REPORT PURSUANT TO SECTI | ON 13 OR 15(d) OF THE SECURITIES EXCHANGE AC | TOF 1934 |
| | For the transition period from to | |
| | Commission File Number: <u>001-36833</u> | |
| | VOLITIONRX LIMITED | |
| | (Exact name of registrant as specified in its charter) | |
| Delaware | 1489 West Warm Springs Road, Suite 110 Henderson, Nevada 89014 | 91-1949078 |
| (State or other jurisdiction of incorporation or organization) | (Address of principal executive offices) | (I.R.S. Employer Identification No.) |
| | ±1 (646) 650–1351 (Registrant's telephone number, including area code) | |
| S | securities registered pursuant to Section 12(b) of the Act: | |
| Title of Each Class: | Trading Symbol(s): | Name of Each Exchange on Which Registered: |
| Common Stock, par value \$0.001 per share | VNRX | NYSE American, LLC |
| Seco | urities registered pursuant to Section 12(g) of the Act: Non | e |
| Indicate by check mark if the registrant is a well-known sea | asoned issuer, as defined in Rule 405 of the Securities Act. Ye | s □No ⊠ |
| Indicate by check mark if the registrant is not required to fi | le reports pursuant to Section 13 or Section 15(d) of the Act. | Yes □No ⊠ |
| | all reports required to be filed by Section 13 or 15(d) of the Sequired to file such reports) and (2) has been subject to such fi | |
| | tted electronically every Interactive Data File required to be r for such shorter period that the registrant was required to sul | |
| | accelerated filer, an accelerated filer, a non-accelerated filer, accelerated filer," "smaller reporting company" and "emerging | |
| | ☐ Accelerated filer | |
| Non-accelerated filer | Smaller reporting company Emerging growth company | |
| If an emerging growth company, indicate by check mark is accounting standards provided pursuant to Section 13(a) of | f the registrant has elected not to use the extended transition the Exchange Act. \Box | period for complying with any new or revised financial |
| | report on and attestation to its management's assessment of (15 U.S.C. 7262(b)) by the registered public accounting firm t | |
| If securities are registered pursuant to Section 12(b) of the correction of an error to previously issued financial statement | he Act, indicate by check mark whether the financial statements. \Box | nents of the registrant included in the filing reflect the |
| Indicate by check mark whether any of those error corregistrant's executive officers during the relevant recovery | ections are restatements that required a recovery analysis of period pursuant to $\S240.10D-1(b)$. \square | incentive-based compensation received by any of the |
| Indicate by check mark whether the registrant is a shell cor | npany (as defined in Rule 12b-2 of the Act). Yes□ No ⊠ | |
| affiliates of the registrant was \$45,489,867 (based upon the | most recently completed second fiscal quarter, the aggregate as \$0.605 per share closing price for the registrant's common t persons deemed to be affiliates for this purpose are affiliates | stock as reported by the NYSE American on June 28, |

Documents incorporated by reference:

As of March 20, 2025, there were 96,543,744 shares of the registrant's \$0.001 par value common stock issued and outstanding.

Portions of the registrant's definitive Proxy Statement on Schedule 14A for its 2025 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission on or before April 30, 2025 are incorporated by reference into Part III, Items 10-14 of this Annual Report on Form 10-K.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K for the fiscal year ended December 31, 2024 (this "Report"), and the information and documents incorporated by reference in this Report, contain "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"), which statements are subject to considerable risks and uncertainties. These forward-looking statements are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact included in this Report or incorporated by reference into this Report are forward-looking statements. We have attempted to identify forward-looking statements by using words such as "aim," "anticipate," "believe," "continue," "could," "estimate(s)," "expect," "forecast(s)," "goal," "intend," "may," "plan(s)," "potential," "project," "seek," "should," "strategy," "will," and other forms of these words or similar words or expressions or the negative thereof (although not all forward-looking statements contain these words). In particular, forward-looking statements contained in this Report, and the information and documents incorporated by reference within this Report, relate to, among other things, our predictions of earnings, revenues, expenses or other financial items; plans or expectations with respect to our development activities or business strategy, including regulatory approvals, commercialization and market acceptance; statements concerning industry trends and industry size; statements regarding anticipated demand for our products and market opportunity, or the products of our competitors; statements relating to manufacturers and industry size; statements regarding the potential impact of our relationships with contract manufacturers, original equipment manufacturers and distributors on our business; assumptions regarding the future co

We have based our forward-looking statements on our current assumptions, expectations and projections about trends affecting our business and industry and other future events. Although we do not make forward-looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. Forward-looking statements are subject to substantial known and unknown risks and uncertainties that could cause our future business, financial condition, results of operations or performance to differ materially from our historical results or those expressed or implied in any forward-looking statement contained in this Report.

Some significant factors that may impact our estimates and forward-looking statements include, but are not limited to:

- Our inability to generate any significant revenue or achieve profitability;
- Our need to raise additional capital in the future;
- Our expansion of our product development and sales and marketing capabilities could give rise to difficulties in managing our growth;
- · Our dependence on third-party distributors;
- · Our limited experience with sales and marketing;
- The possibility that we may not be able to continue to operate, as indicated by the "going concern" opinion from our auditors;
- Our ability to successfully develop, manufacture, market, and sell our future products;
- Our ability to timely obtain necessary regulatory clearances or approvals to distribute and market our future products;
- The acceptance by the marketplace of our future products;
- The highly competitive and rapidly changing nature of the diagnostics market:
- · Protection of our patents, intellectual property and trade secrets;
- Our reliance on third parties to manufacture and supply our intended products, and such manufacturers' dependence on third-party suppliers;
- The material weaknesses in our internal control over financial reporting that we have identified;
- · Pressures related to macroeconomic and geopolitical conditions; and
- Other risks identified elsewhere in this Report, as well as in our other filings with the Securities and Exchange Commission ("the SEC").

For additional information, refer to the section entitled "Risk Factors" in Part I, Item 1A of this Report, and the other documents that we have filed with the SEC

In addition, actual results may differ as a result of additional risks and uncertainties of which we are currently unaware or which we do not currently view as material to our business. For these reasons, readers are cautioned not to place undue reliance on any forward-looking statements.

You should read this Report in its entirety, including the documents that we file as exhibits to this Report and the documents we incorporate by reference into this Report, with the understanding that our future results may be materially different from what we currently expect. The forward-looking statements we make speak only as of the date on which they are made. We expressly disclaim any intent or obligation to update any forward-looking statements after the date hereof to conform such statements to actual results or to changes in our opinions or expectations. If we do update or correct any forward-looking statements, readers should not conclude that we will make additional updates or corrections.

Use of Terms

Except as otherwise indicated by the context, references in this Report to "Company," "VolitionRx," "Volition," "we," "us," and "our" are references to VolitionRx Limited and its wholly owned subsidiaries, Singapore Volition Pte. Limited, Belgian Volition SRL, Volition Diagnostics UK Limited, Volition America, Inc, and Volition Global Services SRL, as well as majority owned subsidiary Volition Veterinary Diagnostics Development LLC. Additionally, unless otherwise specified, all references to "\$" refer to the legal currency of the United States of America.

 $Nucleosomics^{TM}, Nu.Q^{\circledast}, Capture-PCR^{TM} \ and \ Capture-Seq^{TM} \ and \ their \ respective \ logos \ are \ trademarks \ and/or \ service \ marks \ of \ VolitionRx \ and \ its \ subsidiaries. \ All \ other \ trademarks, service \ marks \ and \ trade \ names \ referred to in this \ Report \ are the property of their \ respective \ owners.$

PART I

ITEM 1. BUSINESS

Overview

Imagine a world where diseases like cancer and sepsis can be diagnosed early and monitored easily using routine blood tests. That's the world Volition is trying to build by developing its innovative family of simple, easy to use, cost-effective blood tests.

Volition is a multi-national epigenetics company. It has patented technologies that use chromosomal structures, such as nucleosomes, and transcription factors as biomarkers in cancer and other diseases. The tests in the Company's product portfolio detect certain characteristic changes that occur from the earliest stages of disease, enabling early detection and offering a better way to monitor disease progression and a patient's response to treatment.

The tests offered by Volition and its subsidiaries are designed to detect and monitor a range of life-altering diseases, including certain cancers and diseases associated with NETosis, such as sepsis. Early diagnosis and monitoring have the potential to not only prolong the life of patients but also improve their quality of life.

We have several key pillars of focus:

- Nu.Q® Vet cost-effective, easy-to-use blood tests for dogs and other companion animals. The Nu.Q® Vet Cancer Test is commercially available as a cancer screening test in dogs.
- · Nu.Q® NETs detects diseases associated with NETosis such as sepsis.
- Nu.Q® Discover a complete solution to profiling nucleosomes.
- Nu.Q® Cancer from screening, diagnosis and staging, therapy decision, planning and treatment to monitoring response to treatment and disease progression.
- · Capture-PCRTM isolating and capturing circulating tumor-derived DNA from plasma samples for early cancer detection.

The Company has grown from a single two-meter lab bench at the University of Namur in Belgium to a purpose-built 17,000 square foot lab and 10,000 square foot production facility in Gembloux, Belgium, an Innovation Lab in California, and offices in California, London and Nevada. We now have a team of over 80 dedicated employees, spanning a wide range of disciplines; all united in our mission to improve outcomes for patients.

Cultivating successful, ongoing relationships with stakeholders worldwide has been fundamental to Volition's development. We have fostered ties with leading academic institutions, clinical centers of excellence, multi-national diagnostic and pharmaceutical companies and financial institutions across the globe.

Volition's Solution and the Science Rehind It

We are dedicated to revolutionizing the detection and monitoring of life-altering diseases by advancing the science of epigenetics.

Our team has worked tirelessly for more than a decade to evolve and master our understanding of the rich, complex information encoded in cell-free chromatin and in particular, in cell free nucleosomes and transcription factors, all circulating in the blood. Our tests are platform agnostic and can be adapted to any workflow setting – manual, reference laboratory and point-of-care.

We believe that our focus on innovation and robust assay development, as well as our diverse intellectual property portfolio, positions us to become a significant player in this cutting-edge field of science.

Unlocking Epigenetics

We believe epigenetics is the most exciting field in disease detection and management today. Modern genetics – the study of genes and heredity – is underpinned by the linear sequences of molecular "letters" present in the DNA double helix of each living cell, many of which encode the genes. It has had an enormous impact on the practice of medicine, revolutionizing the way doctors identify people with inherited conditions, diagnose cancer, and, increasingly, design personalized treatment plans. However, there's more to chromosomes than just the DNA sequence; at Volition, we focus on chromosomes' second epigenetic code, which contains a wealth of additional information about the health and function of the body's cells. You can think of the DNA sequence of each cell as the text of an instruction manual, and epigenetics as the formatting. Some parts of the manual are bolded, highlighted, or underlined, telling the cell to emphasize those sections, while others are struck out, telling the cell to ignore those genes. The cells of most bodily organs are continuously replaced by new ones. Epigenetic changes can be detected before the diseased cells themselves become abnormal enough to show up in traditional biopsies, and oftentimes before the first symptoms are felt. We aim to replace unpleasant, invasive, and often expensive screening and diagnostic tests with blood tests, helping to save lives and to reduce overall health care costs.

We have two technologies:

- Nucleosome Quantification ("Nu.Q®")
- Capture-PCRTM and Capture-SeqTM

Chromosome, nucleosome and transcription factor structures represent a major mechanism for epigenetic control. Each chromosome contains one long, single molecule of DNA that is coated by a complex array of proteins, mostly in the form of nucleosomes, giving the stretched-out, unwound DNA/protein core, or chromatin, the appearance of "beads on a string." Unwound chromatin is accessible for reading (or transcribing) and unwound genes may be active. However, genes with coiled or supercoiled nucleosomes are inaccessible and inactive.

Nu.O®

Each nucleosome consists of a disc of eight histone proteins wrapped by a short length of DNA. Nucleosome structure has a dual role: first, it allows the compact storage and protection of the genetic material (or DNA), and second, it modulates the epigenetic regulation (transcription) of that DNA. This regulation is achieved through reversible chemical changes to both the DNA and protein components, as well as through the binding of specific regulatory proteins to the DNA.

Our patented **NucleosomicsTM technology** isolates circulating nucleosomes from the blood for quantification and analysis, to enable earlier diagnosis and monitoring of life-altering diseases.

Nu.Q® Product Overview

Nu.Q® Vet Cancer Test

Cancer is the most common cause of death in dogs over the age of 2 years in the US, and it is estimated that up to 50% of all dogs over the age of 10 will develop cancer in their lifetimes. There are an estimated 6 million pet dogs diagnosed with cancer each year in the US. Earlier cancer detection can improve outcomes, including the quality of life of the dog and its owner. Yet, as of today, there are few single assay cancer blood tests on the veterinary market. Currently, dogs are usually diagnosed when they are unwell or there is a suspicion of cancer. Even then, dogs suspected of having cancer are required to undergo a variety of diagnostic tests that may be expensive, time consuming, and painful for the animal. We hope to change this with the introduction of the Nu.Q[®] Vet Cancer Test.

The Nu Q[®] Vet Cancer Test is an accessible and affordable screening test to aid in the early detection of cancer in dogs. It's a simple, cost effective, easy to use screening blood test recommended for older dogs (7 years and older) and those breeds at increased risk of developing cancer in their lifetimes (from 4 years).

Our test can be easily integrated into preventive care programs and used alongside other routine bloodwork during regular wellness visits. The Nu.Q® Vet Cancer Test is available to veterinarians in the United States, Europe, and Asia through our distributors, which include Antech Diagnostics ("Antech") a leading global provider of advanced veterinary diagnostics, and part of Mars Petcare, one of the largest pet health companies in the world and IDEXX Laboratories, Inc. ("IDEXX"), a global leader in pet healthcare innovation. Our test is also available in Japan through Fujifilm Vet Systems Co. Ltd, a leading provider of veterinary testing services in Japan and through other regional and national distributors such as Vita Genomics, DNA Tech, Nationwide Laboratories, The Veterinary Pathology Group etc.

Transfer of the Nu.Q® Vet Cancer Test onto Antech's in-house diagnostic platform (the element i+) was completed in 2023.

We are currently conducting ongoing research regarding $Nu.Q^{\mathbb{R}}$ Vet in pursuit of the following goals:

- · Broadening the range of cancers detected,
- · Differential diagnosis,
- · Pre-analytics for the use of Nu.Q $^{\mbox{\scriptsize \mathbb{R}}}$ Vet in the feline population,
- · Use of the Nu.Q® platform in NETosis in canines, and
- · Use of Capture-PCRTM in canines.

Nu.Q® NETs

Our Nu.Q® NETs assay is a groundbreaking CE-marked diagnostic solution that clinicians can use to detect NETosis. Our assay can be used to identify patients with clinically relevant elevated levels of circulating Neutrophil Extracellular Traps (NETs) and enable physicians to rapidly treat these patients. Although NETs play a critical role in our normal immune response, elevated levels of NETs are a complicating factor associated with poor patient outcomes in sepsis, cancer, and a range of other diseases.

Sepsis is the number one cause of death in hospitals worldwide. It kills an estimated 11 million people a year, which is more than cancer or coronary disease. In 2017, there were an estimated 49 million cases worldwide, with over half of all cases occurring among children and accounting for 2.9 million deaths in children under five years old. Just under half of all survivors are left with psychological and/or physical effects. Sepsis, also known as 'blood poisoning', is hard to identify. Initial symptoms of sepsis are difficult to distinguish from most infections and there is currently no test to diagnose it. Without prompt treatment, it can lead to multiple organ failure and death. Risk of death increases by 7.6% for every hour of treatment delay. Early detection and treatment of sepsis has the potential to improve survival – and improve the quality of life of survivors. Imagine if a simple blood test could help diagnose sepsis and identify those patients more likely to deteriorate.

Our Nu.Q® NETs assay is the only analytically validated assay to quantify the level of NETs. It is platform agnostic so it can be adapted to any workflow/clinical setting – including central lab and point of care.

Nu.Q® Discover

 $Nu.Q^{\circledR}$ Discover is a complete solution to profiling nucleosomes which empowers drug developers and scientists, offering rapid epigenetic profiling in disease model development, preclinical testing, and clinical studies – from drug discovery to market launch. $Nu.Q^{\circledR}$ Discover is a valuable research tool for R&D professionals working within the field of Pharmacoepigenetics, and studying the epigenetic basis for variation in response to drugs and can help to answer clinical questions, such as measuring treatment efficacy, or on-target and off-target effects in drug development. Drug developers and scientists can work with us, access our state-of-the-art proprietary assays and realize their longer-term, drug development needs. In this way, $Nu.Q^{\circledR}$ Discover is able to unlock value from Volition's IP portfolio by helping us to commercialize the areas we are not going to drive ourselves.

Our biomarkers support the entire drug discovery and development process from pre-clinical testing to market-readiness. We aim to assess disease severity, monitor treatment response, and enhance the understanding of disease pathology and treatments.

Nu.O® Cancer

Our Nu.Q® Cancer pillar encapsulates a range of simple, cost effective blood-based assays. Cancer is a devastating disease that touches many peoples' lives, accounting for approximately 10 million deaths worldwide each year. It is the second leading cause of death globally and exerts an enormous burden on families, communities, and health systems. Survival rates are improving in countries with strong health systems, thanks to advances in cancer detection and treatment. However, access to timely diagnostics and therapies remains limited for cancer patients in low and middle-income countries.

Nu.Q® Cancer can detect characteristic epigenetic changes in nucleosomes that occur during the earliest stages of cancer and has potential applications beyond cancer detection. Being able to use epigenetic information from the nucleosomes of tumor cells could help physicians:

- · Predict treatment response for each patient,
- · Monitor treatment response and disease progression (including identifying Minimal Residual Disease) and
- Promptly amend a patient's cancer treatment regimen to achieve a better outcome.

Capture-PCRTM / Capture-SeqTM

Based on over a decade of work on the chemistry of circulating chromatin fragments, we have also developed a transformational wet chemistry pathway that identifies and physically isolates chromatin fragments that we know are tumor-derived from background DNA of the same sequence, using Chromatin Immunoprecipitation ("ChIP"). Either quantitative real-time PCR ("qPCR") testing or Sequencing ("Seq") is then undertaken to establish whether cancer is present.

This breakthrough method obviates expensive, time-consuming DNA sequencing and bioinformatics - allowing for rapid, cost-effective detection in a routine blood test. It may also be suitable for automation, enabling application in hospital laboratories.

In early-stage cancer, it is difficult to detect cancer-derived circulating tumor DNA ("ctDNA") in the blood because it may comprise only 0.01% of the DNA present among a background of 99.99% normal DNA. Moreover, most of the cancer DNA has exactly the same sequence as normal DNA. Current ctDNA detection methods involve DNA extraction, sequencing of all (cancer and normal) circulating DNA and analysis of the sequencing data using sophisticated computer bioinformatics to tell them apart.

Our patented Capture-PCRTM is a novel method for liquid biopsy involving the first reported physical isolation of a class of tumor-derived ctDNA fragments from blood.

Manufacturing Capabilities and Strategy

Our manufacturing facility in Belgium, known as Silver One, offers cutting edge, purpose-built manufacturing and processing facilities. We are currently focusing on manufacturing our key components such as the antibodies and positive controls at Silver One, as well as ELISA kits. We have also outsourced a portion of the production of our ELISA kits to a third-party manufacturer in the U.S. to facilitate logistics and to aim for large-scale production.

Commercialization Strategy

We are guided by three underlying principles to our commercialization strategy - ensuring our products:

- · Result in low capital expenditures for licensors and end users and low operating expenses for Volition,
- Are affordable, and
- Are accessible worldwide.

The principles above inform our overall commercialization strategy for our products, which is driven by the following:

- · Conducting R&D in-house and through our research partners;
- Monetizing our IP with upfront payments, milestone payments, royalties, and sales of kits and key components; and
- Commercializing our products via global players and in fragmented markets through regional companies.

We aim to partner with established diagnostic companies and/or liquid biopsy companies to market, sell, and process our tests, leveraging their networks and expertise.

We believe, given the global prevalence of cancer and diseases associated with NETosis, and the low-cost, accessible and routine nature of our tests, they could potentially be used throughout the world.

We aim to remain an IP powerhouse in the epigenetic space and expect to monetize our IP and technologies through licensing and distribution contracts with companies that have established distribution networks and expertise on a worldwide or regional basis, in both human and animal care across platforms (centralized labs and point-of-care / inhouse diagnostics).

To this end, on March 28, 2022, Volition entered into a master license and product supply agreement with Heska, now an Antech Company. In exchange for granting Heska exclusive worldwide rights to sell our Nu.Q[®] Vet Cancer Test at the point of care for companion animals, Volition received a \$10.0 million upfront payment upon signing, received \$13.0 million based upon the achievement of two milestones and is eligible to receive up to an additional \$5.0 million based upon the achievement of a final milestone upon the earlier of the first commercial sale by or on behalf of Heska of a screening or monitoring test for lymphoma in felines, or the nine-month anniversary of the first peer reviewed paper evidencing clinical utility for the screening or monitoring of lymphoma in felines being published in any one of a number of periodicals identified by the parties. In addition, Volition has granted Heska non-exclusive rights to sell the Nu.Q[®] Vet Cancer Test in kit format for companion animals through Heska's network of central reference laboratories.

We also entered into a licensing and supply agreement with IDEXX in October 2022. This contract provides worldwide customer reach through IDEXX's global reference laboratory network as we continue to commercialize our transformational Nu.Q® technology within the companion animal healthcare sector and capitalize on the significant opportunities available. IDEXX launched the IDEXX Nu.Q® Canine Cancer Test in January 2023.

In November 2023, we launched the Nu.Q® Vet Cancer Test in the UK and Ireland through our distributor, the Veterinary Pathology Group, and in the UK through Nationwide Laboratories

In July 2024, we launched the Nu.Q® Vet Cancer Test in Japan with Fujifilm Vet Systems Co. Ltd.

Our Market Opportunity

Volition applies its technologies through its subsidiaries to develop simple, easy to use, cost-effective blood tests to help diagnose and monitor a range of life-altering diseases for both humans and animals including certain cancers and diseases associated with NETosis such as sepsis. Given the wide-ranging nature of our products in development we believe that our market opportunity is large.

We anticipate that because of their ease of use and cost efficiency of our tests they have the potential to become the first method of choice for disease detection and monitoring in both humans and animals.

Our Competition

We face competition primarily from other human-focused healthcare, pharmaceutical and diagnostic companies such as Exact Sciences Corporation, Guardant Health, GRAIL Inc., Freenome Holdings Inc, CellMax Life, Archer DX Inc., Foundation Medicine Inc., Oncocyte Corporation, OpKo Health Inc., MDNA Life Sciences Inc., Abbott Laboratories Inc., Cepheid Inc., Hologic Corporation, Agilent Technologies Inc., Qiagen Inc., Thermo Fisher, Illumina, Becton Dickinson, BioMerieux, Siemens, Gen-Probe Incorporated, EpiGenomics AG, MDxHealth SA, Roche Diagnostics, Cytovale Inc., and Immunexpress Inc., and from companies such as One Health Company (Fidocure) in the veterinary space. There may also be other companies developing products competitive with ours of which we are unaware.

We predict our future products will have a competitive edge compared to those offered by competitors on the basis that our tests are developed to be accurate, cost-effective, attractive from a government reimbursement perspective, easy to use, non-invasive, technologically advanced, and compatible with immunoassay systems, based on strong intellectual property and to be used for mass screenings.

Many of our competitors have substantially greater financial, technical, and other resources and larger, more established marketing, sales and distribution systems than we have. Many of our competitors also offer broad product lines outside of the diagnostic testing market and have brand recognition. Moreover, our competitors may make rapid technological developments that may result in our intended technologies and products becoming obsolete before we are able to enter the market, recover the expenses incurred to develop them or generate significant revenue. Our success will depend, in part, on our ability to develop our intended products in a timely manner, keep our future products current with advancing technologies, achieve market acceptance of our future products, gain name recognition and a positive reputation in the healthcare industry, and establish successful marketing, sales and distribution efforts.

Government Regulations

The healthcare industry, and thus our business, is subject to extensive federal, state, local and foreign regulation. Some of the pertinent laws and regulations have not been definitively interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of subjective interpretations. In addition, these laws and their interpretations are subject to change.

Both United States federal and state governmental agencies continue to subject the healthcare industry to intense regulatory scrutiny, including heightened civil and criminal enforcement efforts. As indicated by work plans and reports issued by these agencies, the federal government will continue to scrutinize, among other things, the marketing, labeling, promotion, manufacturing, and export of diagnostic healthcare products. The federal government also has increased funding in recent years to fight healthcare fraud, and various agencies, such as the United States Department of Justice, the Office of Inspector General of the Department of Health and Human Services, and state Medicaid fraud control units, are coordinating their enforcement efforts.

Commercialization of our future products in the clinical in vitro diagnostic ("IVD") market (e.g. for patient diagnosis in hospitals, clinics, etc.) requires government approval (CE marking in Europe, FDA approval in the United States, and Chinese Food and Drug Administration ("CFDA") approval in China). Our diagnostic products fall within the IVD medical device category and are subject to FDA clearance or approval in the United States. We anticipate our tests will have to be cleared through the FDA's premarket notification ("510(k)"), process, or its premarket approval ("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 the 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 CFDA.

In Europe, IVD medical devices are regulated by the European In Vitro Diagnostic Regulation 2017/746 ("EU IVDR") which brings almost all IVDs under the direct review and control of designated assessment organizations ("Notified Bodies"), and the performance evaluation of IVDs, which requires extensive clinical and analytical performance studies in addition to a demonstration of scientific validity. Additional requirements are applied to reinforce the safety of the products such as extended responsibilities of the economic actors of the supply chain, increased post marketing surveillance activities, unannounced audits from Notified Bodies, implementation of an improved traceability and transparency of the devices with the introduction of the Unique Device Identification system and an expanded European Database on Medical Devices.

Tailored transitional periods have been introduced for on-market IVD devices that must undergo a conformity assessment involving Notified Bodies for the first time under the EU IVDR. The length of the transitional periods depends on the classification of device. The time needed for a Technical Documentation assessment of a device by our Notified Body ("TÜV SÜD") is expected to last for nine months at a minimum. Any new devices introduced to the market will undergo EU IVDR assessment.

In practice, the conformity assessment procedure for our products requires a combination of Quality Management System ("QMS") audits and Technical Documentation assessments. To support the conformity to the new IVDR, Belgian Volition has implemented a QMS, conforming to the internationally agreed standard ISO 13485 that sets out the QMS requirements specific to the medical devices industry. Belgian Volition has maintained its ISO certification since 2015.

We will also be required to comply with numerous other federal, state, and local laws relating to matters such as safe working conditions, industrial safety, and labor laws. We may incur significant costs to comply with such laws and regulations in the future, and lack of compliance could have material adverse effects on our operations.

We believe we have structured our business operations to comply with applicable legal requirements. However, it is possible that governmental entities or other third parties could interpret these laws differently and assert otherwise, which could have a material adverse impact on our business.

Intellectual Property

Volition is developing clinical products based on the enrichment and analysis of circulating chromatin using immunoassay, mass spectrometry, DNA sequencing and other methods. We have used this position to build a growing, broad and strong patent portfolio covering the ability to profile the epigenetic environment surrounding circulating chromosome fragments from diseased cells, including the epigenetic signaling status of nucleosomes, DNA, and other epigenetic chromatin proteins.

Our patent portfolio includes 52 patent families (plus three in-licensed families) and a total 75 patents granted related to our diagnostic tests (including veterinary applications), with 13 patents granted in the United States, 20 patents granted in Europe, and a further 42 patents granted worldwide. Additionally, we have a total of 128 patent applications currently pending, worldwide.

We intend to continue our development of the NucleosomicsTM technologies and will continue to apply for patents for future product developments. Our IP strategy is to protect the technologies and gain market exclusivity with patents in Europe and the United States and in other strategic countries. The patent filings on the technologies underlying our products should provide broad coverage for each product, including protection through at least 2043.

Employees

As of December 31, 2024, we had 85 full-time equivalent ("FTE") personnel compared to 110 as of December 31, 2023, reflecting the need to prioritize the cash utilization in our commercial and production activities. We continually assess employee turnover, recruitment initiatives, compensation and benefits programs, safety in performing critical laboratory work, diversity and other matters relevant to human capital management, and we review results with our board of directors on a periodic basis. We aim to offer competitive compensation (including salary, incentive bonus, and equity) and benefits packages to each of our employees around the globe as assessed with internal and external benchmarking data. We aim to build a pipeline for talent to create more opportunities for workplace diversity and to support greater representation within the Company.

Corporate History

VolitionRx Limited is a Delaware corporation that was incorporated on September 24, 1998 under the name "Standard Capital Corporation." VolitionRx acquired its wholly owned operating subsidiary, Singapore Volition Pte. Limited, a Singapore registered company ("Singapore Volition") in October 2011. Volition Global Services SRL, a Belgium private limited liability company ("Volition Global"), was formed in August 2021, which is a wholly owned operating subsidiary of VolitionRx. Singapore Volition has one subsidiary, Belgian Volition SRL, a Belgium private limited liability company ("Belgian Volition"), which it acquired in September 2010. Belgian Volition has four subsidiaries, Volition Diagnostics UK Limited, a private limited company formed under the laws of England and Wales ("Volition Diagnostics"), which was formed in November 2015, Volition America, Inc., a Delaware corporation ("Volition America"), which was formed on in February 2017 and Volition Veterinary Diagnostics Development LLC, a Texas limited liability company ("Volition Vet"), which was formed in June 2019.

Our principal executive office is located at 1489 West Warm Springs Road, Suite 110, Henderson, Nevada 89014. Our telephone number is +1 (646) 650-1351. Our website is located at www.volition.com. The information that can be accessed through our website is not incorporated by reference into this Report and should not be considered to be a part hereof.

Financial Information

See our consolidated financial statements and accompanying notes to the consolidated financial statements included in this Report.

ITEM 1A. RISK FACTORS

Our short and long-term success is subject to numerous risks and uncertainties, many of which involve factors that are difficult to predict or beyond our control. As a result, investing in our common stock involves substantial risk. Before deciding to purchase, hold or sell our common stock, stockholders, and potential stockholders should carefully consider the risks and uncertainties described below, in addition to the other information contained in or incorporated by reference into this Report, as well as the other information we file with the SEC. If any of these risks are realized, our business, financial condition, results of operations, and prospects could be materially and adversely affected. In that case, the value of our common stock could decline, and stockholders may lose all or part of their investment. Furthermore, additional risks and uncertainties of which we are currently unaware, or which we currently consider to be immaterial, could have a material adverse effect on our business.

Certain statements made in this section constitute "forward-looking statements," which are subject to numerous risks and uncertainties including those described in this section. Refer to the section entitled "Cautionary Note Regarding Forward-Looking Statements" within this Report for additional information.

Risks Associated with Our Company

We operate in a rapidly changing environment that involves a number of risks that could materially affect our business, financial condition or future results, some of which are beyond our control. The summary below, as well as the discussion that follows the summary, highlights some of the risks that may affect future operating results. These are the risks and uncertainties we believe are most important for you to consider. We cannot be certain that we will successfully address these risks. If we are unable to address these risks, among other things, our business may not grow, our stock price may suffer, and we may be unable to stay in business. Additional risks and uncertainties not presently known to us, which we currently deem immaterial, or which are similar to those faced by other companies in our industry or business in general, may also impair our business operations.

Risk Factor Summary

Risks Related to Our Business and Business Strategy

- · 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.
- We have incurred significant losses, and we may never achieve profitability.
- It is difficult to forecast our future performance, which may cause our financial results to fluctuate unpredictably.
- The diagnostics market is highly competitive and subject to rapid technological change; accordingly, we will face fierce competition, including from companies with greater resources and experience than us, and our intended products may not achieve significant market penetration and/or may become obsolete.
- Our management has broad discretion over the use of our available cash and might not allocate cash in ways that increase the value of your investment.
- · 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.
- · If any of our facilities or our laboratory equipment were damaged or destroyed, or if we experience a significant disruption in our operations for any reason, our ability to continue to operate our business could be materially harmed.
- · Failure in our information technology, storage systems or our clinical laboratory equipment could significantly disrupt our operations and our research and development efforts and subject us to liability.
- · Our business and reputation will suffer if we are unable to establish and comply with stringent quality standards to assure that the highest level of quality is observed in the performance of our tests.
- Declining global economic or business conditions may have a negative impact on our business.
- We may engage in acquisitions that are not successful and which could disrupt our business, cause dilution to our stockholders and reduce our financial resources.

Risks Related to Product Development, Commercialization and Sales of Our Products

- · 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 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.
- 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.
- The results of pre-clinical studies and completed clinical trials are not necessarily predictive of future results, and our current product candidates may not have favorable results in later studies or trials which, in turn, could have a material adverse effect on our business.
- · Our research and development efforts will be hindered if we are not able to obtain samples, contract with third parties for access to samples or complete timely enrollment in future clinical trials.
- If the third parties on which we increasingly rely to assist us with our current and anticipated pre-clinical development or clinical trials do not perform as expected, we may not be able to obtain regulatory clearance or approval or commercialize our products.
- 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 have limited experience with sales and marketing and any failure to build and manage a sales and marketing team effectively, or to successfully engage third party providers for such services, could have a material adverse effect on our business.
- We 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 depend on third-party distributors to market and sell our products which will subject us to a number of risks.
- The manufacturing operations of our 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.
- Defects in our products may subject us to substantial damages which could materially harm our business or financial condition

Risks Related to Governmental Regulation and Reimbursement

- · 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.
- Reductions or changes in reimbursement policies could limit our ability to sell our products.
- If we are found to have violated laws concerning the privacy and security of patient health information or other personal information, we could be subject to civil or criminal penalties, which could increase our liabilities and harm our reputation or our business.

Risks Related to Our Intellectual Property

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

Risks Related to Our Securities

- The market prices and trading volume of our stock may be volatile.
- We have identified material weaknesses in our internal control over financial reporting that have not yet been remediated, and although we are working to address such weaknesses, 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.
- We have a "going concern" opinion from our auditors, indicating the possibility that we may not be able to continue to operate.
- If we fail to comply with the NYSE American's continued listing requirements, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.
- Our Second Amended and Restated Certificate of Incorporation exculpates our officers and directors from certain liability to our Company and our stockholders.
- Our corporate governance documents, and certain corporate laws applicable to us, and share ownership by executive officers and directors, could make a takeover attempt, which may be beneficial to our stockholders, more difficult.
- · We do not expect to pay dividends in the foreseeable future.
- 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.
- · Future sales of our common stock could depress the market price of our common stock.
- · 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.
- We are a smaller reporting company and a non-accelerated filer, and we cannot be certain if the reduced disclosure requirements applicable to our filing status, as well as the exemption from the requirement to provide an auditor's attestation report regarding the effectiveness of our internal controls, will make our common stock less attractive to investors.

Risks Related to Our Business and Business Strategy

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.

We may require additional capital to fully fund our current strategic plan, which includes successfully commercializing our Nu.Q[®] pipeline and developing future products. If we incur delays in commercialization of our Nu.Q[®] pipeline or other future 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, may not be available on favorable terms. The availability of financing opportunities will depend on various factors, such as market conditions and our financial condition and outlook. In addition, if we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we obtain debt financing, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, and the terms of the debt securities issued could impose significant restrictions on our operations. If we are unable to obtain financing on terms favorable to us, we may be unable to execute our plan of operations and we may be required to cease or reduce development or commercialization of any future products, sell some or all of our technology or assets or merge with another entity.

We have incurred significant losses, and we may never achieve profitability.

We are a clinical stage company and have incurred losses since our formation. As of December 31, 2024, we have an accumulated total deficit of approximately \$229.5 million. As we continue the discovery and development of our future diagnostic products, we expect our expenses to increase significantly. 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' deficit. Because of the numerous risks and uncertainties associated with our product development and commercialization efforts, we are unable to predict when or if we will 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.

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:

- · our ability to develop or procure antibodies for clinical use in our future products;
- · our ability to translate preliminary clinical results to larger prospective symptomatic and screening populations;
- · the demand for our intended products;
- our ability to obtain any necessary financing;
- · our ability to market and sell our future products;
- · market acceptance of our future products and technology;
- performance of any future strategic business partners;
- our ability to obtain regulatory clearances or approvals;
- our success in collecting payments from third-party payors and customers;
- changes in technology that may render our future products uncompetitive or obsolete;
- competition with other diagnostics companies; and
- adverse changes in the healthcare industry (human and canine).

The diagnostics market is highly competitive and subject to rapid technological change; accordingly, we will face fierce competition, including from companies with greater resources and experience than us, and our intended products may not achieve significant market penetration and/or may become obsolete.

The diagnostics market is extremely competitive and characterized by rapidly evolving industry standards and new product enhancements. Our 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.

The market for diagnostics is also significantly affected by new product introductions and other market activities of industry participants. Our competitors include large multinational corporations and their operating units, including Exact Sciences Corporation, Guardant Health, GRAIL Inc., Freenome Holdings Inc, CellMax Life, Archer DX Inc., Foundation Medicine Inc., Oncocyte Corporation, OpKo Health Inc., MDNA Life Sciences Inc., Abbott Laboratories Inc., Cepheid Inc., Hologic Corporation, Agilent Technologies Inc., Qiagen Inc., Thermo Fisher, Illumina, Becton Dickinson, BioMerieux, Siemens, Gen-Probe Incorporated, EpiGenomics AG, MDxHealth SA, Roche Diagnostics, Cytovale Inc. and Immunexpress Inc., and from companies such as One Health Company (Fidocure) focused on the veterinary space. There may also be other companies developing products competitive with ours of which we are unaware. Successful commercialization of our services will require that we satisfactorily address the needs of various medical practitioners that constitute a target market to reach customers and to address potential resistance to recommendations for our services. If we are unable to continue to achieve significant market penetration, we will not be able to generate sufficient revenue to become profitable and our products may become obsolete.

Many of our competitors have greater resources and experience than us and may enjoy 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.

Many of 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 may allow them to respond more quickly to new or emerging technologies and changes in consumer requirements. We also face competition in our search for third parties to assist us with sales and marketing of our product candidates, which may negatively impact our ability to enter into favorable sales and marketing arrangements. For all the foregoing reasons, we may not be able to compete successfully against our competitors, which could jeopardize our ability to recoup research and development expenditures, hurt our reputation and harm our business, results of operations and financial condition.

Our management has broad discretion over the use of our available cash and might not allocate cash in ways that increase the value of your investment

As of December 31, 2024, we had approximately \$3.3 million in combined cash and cash equivalents compared to approximately \$20.7 million as of December 31, 2023. Our management expects to deploy these resources primarily to expand our commercialization activities, to fund our product development efforts and for general corporate and working capital purposes. However, our management has broad discretion to pursue other objectives. Our management might not apply our cash in ways that increase or permit any return of your investment.

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.

If any of our facilities or our laboratory equipment were damaged or destroyed, or if we experience a significant disruption in our operations for any reason, our ability to continue to operate our business could be materially harmed.

If our present, or any future facilities, were to be damaged, destroyed or otherwise unable to operate, whether due to fire, floods, storms, tornadoes, earthquakes, other inclement weather events or natural disasters, employee malfeasance, terrorist acts, power outages, or otherwise, it may render it difficult or impossible for us to perform our research and development for some period of time and our business could be severely disrupted. The lead time from ordering to delivery of certain specialized equipment we use can be more than six months and difficult to substitute.

Failure in our information technology, storage systems or our clinical laboratory equipment could significantly disrupt our operations and our research and development efforts and subject us to liability.

Our ability to execute our business strategy depends, in part, on the continued and uninterrupted performance of our information technology systems, which support our operations including our research and development efforts. The integrity and protection of our own data, and that of our customers, clinical trial subjects and employees, is critical to our business. The regulatory environment governing information, security and privacy laws is increasingly demanding and continues to evolve. IT systems are vulnerable to damage from a variety of sources. High-profile security breaches at other companies and in government agencies have increased in recent years, and cyber-attacks are becoming more sophisticated and frequent, and in some cases have caused significant harm. Computer hackers and others routinely attempt to breach the security of technology products, services and systems, and to fraudulently induce employees, customers, or others to disclose information or unwittingly provide access to systems or data. While we devote significant resources to security measures to protect our systems and data, these measures cannot provide absolute security.

Any breach or interruption of our information technology systems could compromise our networks and the information stored therein could be accessed by unauthorized parties, publicly disclosed, lost or stolen. Despite the precautionary measures we have taken to prevent unanticipated problems that could affect our IT systems, unauthorized access, loss or disclosure could also disrupt our operations, including our ability to:

- · provide customer assistance services;
- · conduct research and development activities;
- \cdot collect, process and prepare company financial information;
- provide information about our tests and other patient and healthcare provider education and outreach efforts through our website; and
- · manage the administrative aspects of our business and damage to our reputation.

Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, such as the U.S. Health Insurance Portability and Accountability Act of 1996, similar U.S. state data protection regulations, including the California Consumer Privacy Act, the EU's General Data Protection Regulation, and other regulations, the breach of which could result in significant penalties.

Failure to adequately protect and maintain the integrity of our information systems and data, including as a result of a security breach, may result in significant losses and have a material adverse effect on our financial position, results of operations and cash flows.

Our business and reputation will suffer if we are unable to establish and comply with stringent quality standards to assure that the highest level of quality is observed in the performance of our tests.

Inherent risks are involved in providing and marketing diagnostic and monitoring tests and related services. Patients and healthcare providers rely on us to provide accurate clinical and diagnostic information that may be used to make critical healthcare decisions. Consequently, users of our tests may have a greater sensitivity to errors than users of some other types of products and services. We must maintain high service standards and other quality controls. Performance or accuracy defects, incomplete or improper process controls, excessively slow turnaround times, unanticipated uses of our tests or mishandling of samples or test results (whether by us, patients, healthcare providers, courier delivery services, or others) can lead to adverse outcomes for patients and interruptions to our services. These events could lead to voluntary or legally mandated safety alerts relating to our tests or our laboratory facilities and could result in the removal of our products and services from the market or the suspension of our laboratories' operations. Insufficient quality controls and any resulting negative outcomes could result in significant costs and litigation, as well as negative publicity that could reduce demand for our tests and payers' willingness to cover our tests. Even if we maintain adequate controls and procedures, damaging and costly errors may occur.

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

Concerns over U.S. 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, and global inflationary pressures may contribute to increased volatility and diminished expectations for the global economy. If the economic climate deteriorates, 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.

The United Kingdom's withdrawal from the European Union became effective in January 2021. Although it is known what the terms of this withdrawal were, it is still possible that greater restrictions on imports and exports between the European Union countries and the United Kingdom and increased regulatory complexities are forthcoming. These changes may adversely affect our ability to market our future products in the United Kingdom which could have an adverse effect on our business, financial condition, and results of operations.

In addition, following Russia's military invasion of Ukraine in February 2022, NATO deployed additional military forces to Eastern Europe, and the United States, European Union, and other nations announced various sanctions against Russia. The invasion of Ukraine and the retaliatory measures that have been taken, and could be taken in future, by the U.S., NATO, and other countries have created global security concerns that could result in a regional conflict and otherwise have a lasting impact on regional and global economies, any or all of which could adversely affect our business.

Separately, proposals to implement new tariffs or other trade restrictions in the U.S. could impact the products we import into the U.S. and also result in retaliatory measures in international markets where we sell our products. Although we cannot predict whether and in what form such measures will be adopted or implemented, these proposals for tariffs or other trade restrictions could increase our cost of goods sold and negatively impact our business and operating results. Supply chain disruptions and delays as a result of any new tariff policies or trade restrictions could also negatively impact our cost of materials and production processes.

We may engage in acquisitions that are not successful and which could disrupt our business, cause dilution to our stockholders and reduce our financial resources.

From time to time, we may consider opportunities to acquire or invest in other companies, products or technologies that may enhance our product platform or technology, expand the breadth of our markets or customer base, or otherwise advance our business strategies. Potential and completed acquisitions and investments involve numerous risks, including the following:

- · we may be unable to successfully integrate the acquired business (es) into our business;
- we may be unable to realize the anticipated benefits of the acquisition;
- the acquisition may not strengthen our competitive position; and
- our future results may suffer if we do not effectively manage our expanded operations.

We do not know if we will be able to identify future acquisitions or investments we deem suitable, whether we will be able to successfully complete any such acquisitions or investments on favorable terms or at all, or whether we will be able to successfully integrate any acquired products or technologies into our business. Our potential inability to integrate any acquired products or technologies effectively may adversely affect our business, operating results and financial condition.

Risks Related to Product Development, Commercialization and Sales of Our Products

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. If our research and studies do not satisfy providers, payors and others as to the reliability and effectiveness, we may experience reluctance or refusal on the part of the physician to use our future products. 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.

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 the Nu.Q[®] tests and other 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, Asia 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.

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. 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.

The results of pre-clinical studies and completed clinical trials are not necessarily predictive of future results, and our current product candidates may not have favorable results in later studies or trials which, in turn, could have a material adverse effect on our business.

We must conduct extensive testing of our product candidates and new indications of our marketed products before we can obtain regulatory approval to market and sell them. Success in pre-clinical studies or completed clinical trials does not ensure that later studies or trials, including continuing pre-clinical studies and large-scale clinical trials, will be successful nor does it necessarily predict future results. Favorable results in early studies or trials may not be repeated in later studies or trials, and product candidates in later stage trials may fail to show acceptable safety and efficacy despite having progressed through earlier trials. We may be required to demonstrate through large, long-term outcome trials that our product candidates are safe and effective for use in a broad population prior to obtaining regulatory approval. The failure of clinical trials to demonstrate the safety and effectiveness of our clinical candidates for the desired indication(s) would preclude the successful development of those candidates for such indication(s), in which event our business, prospects, results of operations and financial condition may be adversely affected.

Our research and development efforts will be hindered if we are not able to obtain samples, contract with third parties for access to samples or complete timely enrollment in future clinical trials.

Access to human and animal sample types, such as blood is necessary for our research and product development. Acquiring samples from individuals / animals with clinical diagnoses or associated clinical outcomes through purchase or clinical studies is necessary. Lack of available samples can delay development timelines and increase costs of development. Generally, the agreements under which we gain access to human and animal samples are non-exclusive. Other companies may compete with us for access. If we are not able to negotiate access to clinical samples with research institutions, hospitals, clinical partners, pharmaceutical companies, or companies developing therapeutics and/or diagnostics on a timely basis, or at all, or if other laboratories or our competitors secure access to these samples before us, our ability to research, develop and commercialize future products will be limited or delayed. Equally, we may not be able to conduct or complete clinical studies in a timely manner if we are unable to enroll sufficient numbers of patients in such studies, which could consequently have an adverse effect on our research and development and product commercialization efforts.

If the third parties on which we increasingly rely to assist us with our current and anticipated pre-clinical development or clinical trials do not perform as expected, we may not be able to obtain regulatory clearance or approval or commercialize our products.

As our clinical infrastructure expands, we expect to increasingly rely on third parties, such as contract research organizations, medical institutions, clinical investigators and contract laboratories to conduct some of our current and anticipated pre-clinical investigations and clinical trials. For example, we currently rely on Diagnostic Oncology CRO, LLC ("DXOCRO") to support development and clinical validation studies for our Nu.Q® product portfolio in the United States, including by conducting large-scale finding studies across multiple sites in the U.S. using our Nu.Q® NETs test to determine clinical utility in sepsis, which we hope to leverage in support of our U.S. commercialization strategy. However, if we are not able to maintain or reach mutually acceptable agreements with DXOCRO or other third parties on a timely basis, these third parties do not successfully carry out their commitments or regulatory obligations or meet expected deadlines, or the quality or accuracy of the data they obtain is compromised due to the failure to adhere to agreed-upon clinical protocols or regulatory requirements or for other reasons, our pre-clinical development activities or clinical trials may be extended, delayed, suspended or terminated, and we may not be able to obtain regulatory clearance or approval for, or successfully commercialize, our products on a timely basis, if at all, and our business, operating results and prospects may be adversely affected.

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 are focused on developing our pipeline for current and future products. It is likely that our efforts will result in significant growth in the number of our consultants, advisors, and employees, in addition to the scope of our operations. For example, in connection with the anticipated commercialization of our products, we may add personnel to certain areas of our business including laboratory operations, quality assurance, and compliance. Further, as we build our commercialization efforts and expand research and development activities for new products, the scope and complexity of our operations is increasing significantly. As a result of our growth, our operating expenses and capital requirements have also increased, and we expect that they will continue to increase. Our ability to manage our growth effectively requires us to expend funds 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 sales and marketing and any failure to build and manage a sales and marketing team effectively, or to successfully engage and maintain third party providers for such services, could have a material adverse effect on our business.

As an organization we have limited experience with direct sales however we are building a team of experienced individuals in terms of market intelligence, product management and account management in addition to building relationships with market-leading established distributors as commercial partners. For example, Antech has commenced sales of our Nu.Q[®] Vet Cancer Test for screening of cancer in canines to veterinarians worldwide at the point of care pursuant to our exclusive global supply and licensing agreement. We have also engaged IDEXX to make our Nu.Q[®] Vet Cancer Test available to reference laboratories in the United States. Although we are investing in direct marketing to support these commercial launches, we may rely on third party resources such as Antech's global network of veterinarians and IDEXX's reference laboratory network to successfully market this test and generate revenue. Any failure to build and manage a sales and marketing team effectively, or to successfully engage and maintain third-party providers for such services, 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. Our clinical sales strategy is initially focused on the clinical IVD market with the CE marking of our first product in Europe, the Nu.Q[®] NETs test, in May 2022. With this CE marking of our first product in Europe we intend to enter the European markets and, following the completion of any necessary regulatory clearances, certain Asian markets. Even if we receive a CE mark for a certain product, we must still seek regulatory clearance in other jurisdictions. A failure to obtain these regulatory clearances in other jurisdictions could negatively affect our business. Pending completion of our review of the regulatory environment in the United States we may decide to enter the United States market through a Clinical Laboratory Improvement Amendments ("CLIA"), certified laboratory located in the United States. We remain firmly committed to pursuing FDA approval as our primary objective. FDA approval can consist of PMA or 510(k) clearance depending on the test complexity and risk posed to patients. We intend to pursue the most appropriate approval pathway for each individual product developed. 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.

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:

- · identify appropriate partners;
- negotiate beneficial partnership and distribution agreements;
- hire qualified individuals as needed;
- · generate sufficient leads within our targeted market for our sales force;
- provide adequate training for effective sales and marketing;
- · protect intellectual property rights;
- · retain and motivate our direct sales and marketing professionals; and
- 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. Further, we are required to comply with numerous other federal, state, and local laws relating to matters such as safe working conditions, industrial safety, and labor laws. We may incur significant costs to comply with such laws and regulations in the future, and lack of compliance could have material adverse effects on our operations. We believe that we have structured our business operations to comply with applicable legal requirements. However, it is possible that governmental entities or other third parties could interpret these laws differently and assert otherwise, which could have a material adverse impact on our business.

We 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 rely on third parties to manufacture and supply our intended products. The manufacture of our intended diagnostic products requires specialized equipment and utilizes 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.

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

We depend, and expect to continue to depend, on third-party distributors to market, sell, and service our products in our intended markets. For example, Antech has commenced pre-order sales of our Nu.Q[®] Vet Cancer Test for screening of cancer in canines to veterinarians at the point of care and we engaged IDEXX to make our Nu.Q[®] Vet Cancer Test available to reference laboratories in the United States. Further, we have engaged with others including DNAtech, Portugal, and, through our agreement with Antech, with Scil Lab Europe, to launch the Nu.Q[®] Vet Cancer Test to customers in Europe. In November 2023, we launched the Nu.Q[®] Vet Cancer Test in the UK and Ireland through our distributor, the Veterinary Pathology Group, and in the UK through Nationwide Laboratories. Our test is also available in Japan through Fujifilm Vet Systems Co. Ltd, a leading provider of veterinary testing services in Japan. We are subject to a number of risks associated with reliance upon these parties and other third-party distributors including the following:

- · 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 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 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 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.

The manufacturing operations of our 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.

We have implemented certain risk mitigation strategies including the diversification of suppliers by region and the internalization of certain production processes. However, 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.

Defects in our products may subject us to substantial damages which could materially harm our business or financial condition.

The products we develop could lead to product liability claims based on allegations that one or more of our products contained a design or manufacturing defect which resulted in the failure to detect the disease for which it was designed. A product liability claim could result in substantial damages and be costly and time consuming to defend, either of which could materially harm our business or financial condition. We cannot assure you that our product liability insurance would protect our assets from the financial impact of defending a product liability claim. Any product liability claim brought against us, with or without merit, could increase our product liability insurance rates or prevent us from securing insurance coverage in the future.

Risks Related to Governmental Regulation and Reimbursement

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 CE in Europe, the CFDA in China, 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, China and Europe, we will be required to obtain clearance or approval of our future products from the FDA and the CFDA with respect to the United States and China, respectively, and receive a CE mark with respect to Europe. In Europe, since May 2022, IVD medical devices are regulated by the new EU IVDR. The most challenging changes under the EU IVDR as compared to the previous Directive are those regarding the classification of products, which brings almost all IVDs under the direct review and control of Notified Bodies, and the performance evaluation of IVDs, which requires extensive clinical and analytical performance studies in addition to a demonstration of scientific validity. These changes and other additional requirements to obtain a CE Mark could result in delays and further expense, in terms of staff costs to us compared to the process under the previous Directive.

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 jeopardize our ability to sell our products and result in enforcement actions such as fines, civil penalties, injunctions, warning letters, recalls of products, delays in the introduction of products into the market, refusal of the FDA or other regulators to grant future clearances or approvals, delays by the FDA or other regulators in granting clearances or approvals, and the suspension or withdrawal of existing approvals by the FDA or other regulators, any of which 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 currently able to self-certify that they meet the appropriate regulatory requirements (which are subject to change with the EU MDR and the EU IVDR noted above) 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.

Reductions or changes in reimbursement policies could limit our ability to sell our products.

Market acceptance and sales of our products will depend, in part, on reimbursement policies and may be affected by healthcare reform measures. Government authorities and third-party payers, such as private health insurers and health maintenance organizations, decide which products they will pay for and establish reimbursement levels for those products. To manage healthcare costs, many governments and third-party payers in the United States increasingly scrutinize the pricing of new products and require greater levels of evidence of favorable clinical outcomes and cost-effectiveness before extending coverage. We cannot be sure that reimbursement will be available for our products and, if reimbursement is available, the scope of such reimbursement. Reimbursement may impact the demand for, or the price of, our products. If reimbursement is not available or is available only at limited amounts, we may not be able to successfully commercialize our future products.

If we are found to have violated laws concerning the privacy and security of patient health information or other personal information, we could be subject to civil or criminal penalties, which could increase our liabilities and harm our reputation or our business.

There are a number of U.S. and international laws protecting the privacy and security of personal information. These laws include the U.S. Health Insurance Portability and Accountability Act of 1996 ("HIPAA") and related regulations, U.S. state laws (such as the California Consumer Privacy Act ("CCPA") and the California Privacy Rights Act ("CPRA")), Canada's Personal Information and Electronic Documents Act ("PIPEDA") or the applicable provincial alternatives, the EU's General Data Protection Regulation ("GDPR"), EU member states directives, or similar applicable laws. These laws place limits on how we may collect, use, share and store medical information and other personal information, and they impose obligations to protect that information against unauthorized access, use, loss, and disclosure.

If we, or any of our service providers who have access to the personal data for which we are responsible, are found to be in violation of the privacy or security requirements of HIPAA, PIPEDA, GDPR, or applicable foreign, U.S. state and Canadian provincial laws, we could be subject to civil or criminal penalties, which could increase our liabilities, harm our reputation and have a material adverse effect on our business, financial condition and operating results. In addition, entities operating in the healthcare industry have increasingly become targets for hackers. Although we utilize a variety of measures to secure the data that we control, even compliant entities can experience security breaches or have inadvertent failures despite employing reasonable practices and safeguards.

We may also face new risks relating to data privacy and security as the United States, individual U.S. states or Canadian provinces, E.U. member states, and other international jurisdictions adopt or implement new data privacy and security laws and regulations as we continue to commercialize our products worldwide. For example, amendments to privacy and security laws (such as the CCPA and the CPRA) may impose additional requirements on us and increase our regulatory and litigation risk. As we continue to expand, our business will need to adapt to meet these and other similar legal requirements.

Risks Related to Our Intellectual Property

If the patents we rely on to protect our intellectual property prove to be inadequate, our ability to successfully commercialize our 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, Europe and other countries, so that we can seek to prevent others from unlawfully using our inventions and proprietary information. Our patent portfolio includes 52 patent families (plus three in-licensed families) and a total 75 patents granted related to our diagnostic tests (including veterinary applications), with 13 patents granted in the United States, 20 patents granted in Europe and a further 42 patents granted worldwide. Additionally, we have 128 patent applications pending, worldwide.

If we are not able to protect our proprietary technology and information, our competitors may use our inventions to develop competing products. 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 products or judicial interpretation of the scope of our patents, our 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 products.

Our ability to commercialize our products depends on our ability to develop, manufacture, market and sell our products without infringing the proprietary rights of third parties. Third parties may allege that our 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 products and our underlying methodologies, discoveries and technologies. A third party may sue us for infringing its patent rights.

Our ability to successfully commercialize our products depends on our ability to protect our proprietary technology and information. 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. Additionally, we cannot be certain of the level of protection, if any that will be provided by our patents if they are challenged in court, where our competitors may raise defenses such as invalidity, unenforceability or possession of a valid license.

If we are found to infringe upon intellectual property rights of third parties, we might be forced to pay damages, potentially including triple 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 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 Related to Our Securities

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:

- competition;
- comments by securities analysts regarding our business or prospects;
- · additions or departures of key personnel;
- · our ability to execute our business plan;
- · issuance of common stock or other securities;
- · operating results that fall below expectations;
- · loss of any strategic relationship;
- industry developments;
- economic and other external factors; and
- · 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.

We have identified material weaknesses in our internal control over financial reporting that have not yet been remediated, andalthough we are working to address such weaknesses, 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, 2024. See Part II, Item 9Aof this Report for a complete discussion of these material weaknesses in our internal control over financial reporting and remediation efforts. Although we have taken and continue to take 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.

If we fail to comply with the NYSE American's continued listing requirements, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.

Our common stock is listed on the NYSE American. The continued listing of our common stock on the NYSE American is subject to our continued compliance with certain listing requirements, including requirements related to corporate governance, our financial condition and operating results, the trading price of our common stock, number of stockholders and our market capitalization. If we fall out of compliance with the NYSE American's listing standards and fail to regain compliance within the applicable cure periods, our common stock may be delisted from the NYSE American. The delisting of our common stock could materially reduce the liquidity of our common stock and result in a corresponding material reduction in the price of our common stock. In addition, delisting could harm our ability to raise capital on terms acceptable to us, or at all, reduce the amount of analyst coverage of our securities, result in the loss of confidence by investors and employees, and could lead to fewer business development opportunities, any of which could adversely affect our business.

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

Our Second 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.

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

Our board of directors has the power, under our charter documents to:

- · issue additional shares of common stock without having to obtain stockholder approval for such action;
- fill vacant directorships except for vacancies created by the removal of a director;
- · 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.

Further, our executive officers and directors beneficially own an amount of our outstanding shares of common stock such that if they were collectively to oppose a third party's acquisition proposal for, or a change in control of, the Company, such officers and directors may have sufficient voting power to be able to influence whether such an acquisition or change in control takes place, even if other stockholders would support such a sale or change of control.

These provisions and circumstances 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 have never declared or paid cash dividends on our common stock. 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 Second Amended and Restated Certificate of Incorporation authorizes the issuance of 175,000,000 shares of common 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 issued in the future on an arbitrary basis. The issuance of common 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. If one or more equity analysts cover us and publish research reports about our common stock, the price of our stock could decline rapidly if one or more securities analysts downgrade our stock or if those analysts' issue or offer unfavorable commentary or cease publishing reports about us. 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 a non-accelerated filer and we cannot be certain if the reduced disclosure requirements applicable to our filing status, as well as the exemption from the requirement to provide an auditor's attestation report regarding the effectiveness of our internal controls, will make our common stock less attractive to investors.

We are 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 \$250 million measured as of the last business day of our most recently completed second fiscal quarter. "Smaller reporting companies" are able to provide simplified executive compensation disclosures in their filings 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. We are also a "non-accelerated filer," based on our eligibility as a "smaller reporting company" as well as having annual revenues of less than \$100 million in the most recent fiscal year for which audited financial statements are available. As a "non-accelerated filer," we 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. Decreased disclosures in our SEC filings due to our status as a "smaller reporting company" and as a "non-accelerated filer" may make it harder for investors to analyze our results of operations and financial prospects and may make our common stock a less attractive investment.

ITEM 1B. UNRESOLVED STAFF COMMENTS

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ITEM 1C. CYBERSECURITY

We maintain an information security and cybersecurity program, as well as a cybersecurity governance framework, which are designed to protect our information systems against operational risks related to cybersecurity.

Cybersecurity Risk Management and Strategy

We recognize the importance of assessing, identifying, and managing material risks associated with cybersecurity threats which include, among other things, operational risks, intellectual property theft, fraud or extortion, harm to employees or customers, violation of privacy or security laws and related litigation and legal risk, and reputational risks.

We have developed and implemented a cybersecurity risk management program intended to protect the confidentiality, integrity, and availability of our critical systems and information, and detect and contain any cybersecurity incidents that impact us. The program is integrated into our overall risk management systems and processes, and includes a cybersecurity risk assessment process that routinely evaluates potential impacts of cybersecurity risks on our business, including our operations, financial stability, and reputation. These assessments inform our cybersecurity risk mitigation strategies. The results are regularly shared with management and the Audit Committee of our board of directors as part of the committee's involvement in managing and overseeing cybersecurity risks.

Our cybersecurity risk management program also includes processes to triage, assess the severity of, escalate, contain, investigate, and remediate an incident, as well as to comply with potentially applicable legal obligations and mitigate brand and reputational damage. If a cybersecurity incident is determined to be a potentially material cybersecurity incident, our disclosure controls and procedures define the steps to determine materiality and disclose such a material cybersecurity incident.

While we do not believe that our business strategy, results of operations or financial condition have been materially adversely affected by any cybersecurity incidents, cybersecurity threats are pervasive and, similar to other global financial institutions, we, as well as our employees, customers, regulators, service providers, and other third parties have experienced a significant increase in information security and cybersecurity risk in recent years and will likely continue to be the target of cyber attacks. We continue to assess the risks and changes in the cyber environment, invest in enhancements to our cybersecurity capabilities, and engage in industry and government forums to promote advancements in our cybersecurity capabilities, as well as the broader financial services cybersecurity ecosystem. For more information on risks to us formation technology, storage systems or our clinical laboratory equipment could significantly disrupt our operations and our research and development efforts" included within this Report.

Cybersecurity Governance

Our board of directors is actively involved in overseeing risks from cybersecurity threats. At least once a year, the board of directors discusses our programs and policies related to cybersecurity and risk initiatives and considers them closely both from a risk management perspective and as part of our business strategy. Additionally, our board has delegated to our Audit Committee the authority to oversee and review the adequacy of our cybersecurity, information and technology security, and data privacy programs, procedures, and policies. Our Audit Committee is comprised entirely of independent directors who regularly evaluate cybersecurity risks.

The Audit Committee regularly receives updates from management with respect to the Company's efforts to manage data protection, cybersecurity, and information and technology risks, and assesses the results of reviews from internal audits. Materials presented to our Audit Committee include updates on our data security posture, results from internal audit and third-party assessments, our incident response plan, and certain cybersecurity threat risks or incidents and developments, as well as the steps management has taken to respond to such risks. The committee also regularly engages with our Group IT Manager on technology risk-related topics.

Our processes also allow for our board of directors and the Audit Committee to be informed of key cybersecurity risks outside the regular reporting schedule. While the Audit Committee conducts meetings regularly, the committee is authorized to meet with management or individual directors at any time it deems appropriate to discuss matters relevant to the committee. The Company's policy is for the board and the Audit Committee to receive prompt and timely information regarding any cybersecurity risk (including any incident) that meets reporting thresholds, as well as ongoing updates regarding any such risk, in accordance with our data breach reporting procedure and GDPR.

ITEM 2. PROPERTIES

Listed below are our current facilities as of December 31, 2024:

| Location | Primary Function | Approx. Square Feet | Leased or Owned |
|-------------------------------|--------------------------|---------------------|-----------------------|
| Namur, Belgium ⁽¹⁾ | Research and development | 17,300 | Owned |
| Namur, Belgium (2) | Manufacturing | 9,688 | Owned |
| London, UK (3) | Sales and marketing | 323 | Leased, expiring 2026 |
| Henderson, Nevada (4) | Administration | 301 | Leased, expiring 2026 |
| Carlsbad, California (5) | Research and development | 6,645 | Leased, expiring 2027 |

- (1) Belgian Volition purchased property located in Namur, Belgium, in October 2016, to be used as a laboratory facility for R&D. The purchase price for the property was £1.2 million, exclusive of any closing costs.
- (2) Belgian Volition purchased property located in Namur, Belgium, in December 2020, to be used as a manufacturing facility. The purchase price for the property was €0.6 million, exclusive of any closing costs.
- (3) Volition Diagnostics signed a new 12-month lease for this property located at 93-95 Gloucester Place, London, W1U 6JQ, United Kingdom, commencing February 1, 2025 until January 31, 2026, at an annual rent of £69,300 GBP.
- (4) Volition America signed a new one-year lease for this property, commencing on April 1, 2024, located at 1489 West Warm Springs Road, Suite 110, Henderson, Nevada 89014, at an annual rent of \$19,308. Volition America entered into a new one-year lease for this property, commencing April 1, 2025, at an annual rent of \$20,748.
- (5) Volition America signed a sixty-two month lease for this property, commencing on February 1, 2022, located at 6086 Corte Del Cedro, Carlsbad, California 92011 at an annual rent of \$99,714.

ITEM 3. LEGAL PROCEEDINGS

In the ordinary course of business, we may be subject to claims, counter claims, suits and other litigation of the type that generally arise from the conduct of our business. We are not aware of any threatened or pending litigation that we expect will have a material adverse effect on our business operations, financial condition or results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. Market for the REGISTRANT'S Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is traded on the NYSE American under the symbol "VNRX".

Holders

As of March 20, 2025, there were 96,543,744 shares of our common stock outstanding held by 168 holders of record, based on information provided by our transfer agent. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Dividends

We have not declared or paid any cash dividends on our common stock since inception and presently anticipate that all earnings, if any, will be retained for development of our business and that no dividends on our common stock will be declared in the foreseeable future. Any future dividends will be subject to the discretion of our board of directors and will depend upon, among other things, future earnings, operating and financial conditions, capital requirements, general business conditions and other pertinent facts. Therefore, there can be no assurance that any dividends on our common stock will be paid in the future.

Recent Sales of Unregistered Securities

None.

Repurchase of Equity Securities

No equity securities were repurchased during the fourth quarter of 2024.

ITEM 6. [RESERVED]

ITEM 7. Management's Discussion and Analysis OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read together with our consolidated financial statements in Part II within this Report. This discussion includes an analysis of our financial condition and results of operations for the years ended December 31, 2024 and 2023 and year-over-year comparisons between those periods. Certain statements made in this section constitute "forward-looking statements," which are subject to numerous risks and uncertainties including those described in this section. For additional information, refer to the section entitled "Cautionary Note Regarding Forward-Looking Statements" within this Report.

Company Overview

Volition is a multi-national epigenetics company. It has patented technologies that use chromosomal structures, such as nucleosomes, and transcription factors as biomarkers in cancer and other diseases. The tests in the Company's product portfolio detect certain characteristic changes that occur from the earliest stages of disease, enabling early detection and offering a better way to monitor disease progression and a patient's response to treatment.

The tests offered by Volition and its subsidiaries are designed to detect and monitor a range of life-altering diseases, including certain cancers and diseases associated with NETosis, such as sepsis. Early diagnosis and monitoring have the potential to not only prolong the life of patients but also improve their quality of life.

We have several key pillars of focus:

- $Nu.Q^{\textcircled{R}}$ Vet cost-effective, easy-to-use blood tests for dogs and other companion animals. The $Nu.Q^{\textcircled{R}}$ Vet Cancer Test is commercially available as a cancer screening test in dogs.
- Nu.O® NETs detects diseases associated with NETosis such as sepsis.
- Nu.O® Discover a complete solution to profiling nucleosomes.
- Nu.O® Cancer from screening, diagnosis and staging, therapy decision, planning and treatment to monitoring response to treatment and disease progression.
- · Capture-PCRTM isolating and capturing circulating tumor-derived DNA from plasma samples for early cancer detection.

The Company has grown from a single two-meter lab bench at the University of Namur in Belgium to a purpose-built 17,000 square foot lab and 10,000 square foot production facility in Gembloux, Belgium, an Innovation Lab in California, and offices in California, London and Nevada. We now have a team of over 80 dedicated employees, spanning a wide range of disciplines; all united in our mission to improve outcomes for patients.

Cultivating successful, ongoing relationships with stakeholders worldwide has been fundamental to Volition's development. We have fostered ties with leading academic institutions, clinical centers of excellence, multi-national diagnostic and pharmaceutical companies and financial institutions across the globe.

We have identified the specific processes and resources required to achieve the near and medium-term objectives of our business plan, including personnel, facilities, equipment, research and testing materials including antibodies and clinical samples, and the protection of intellectual property. To date, operations have proceeded satisfactorily in relation to our business plan. However, it is possible that some resources will not readily become available in a suitable form or on a timely basis or at an acceptable cost. It is also possible that the results of some processes may not be as expected, and that modifications of procedures and materials may be required. Such events could result in delays to the achievement of the near and medium-term objectives of our business plan, in particular the progression of clinical validation studies and regulatory approval processes for the purpose of bringing products to the IVD market.

Our future as an operating business will depend on our ability to obtain sufficient capital contributions, financing and/or generate revenues as may be required to sustain our operations. Management plans to address the above as needed by: (a) securing additional grant funds; (b) obtaining additional financing through debt or equity transactions; (c) granting licenses to third parties in exchange for specified up-front and/or back-end payments; and (d) developing and commercializing our products on an accelerated timeline. Management continues to exercise tight cost controls to conserve cash.

Our ability to continue as a going concern is dependent upon our accomplishment of the plans described in the preceding paragraph and eventually to attain profitable operations. The accompanying consolidated financial statements do not include any adjustments that might be necessary if we are unable to continue as a going concern. If we are unable to obtain adequate capital, we could be forced to cease operations.

Liquidity and Capital Resources

We have financed our operations since inception primarily through private placements and public offerings of our common stock. As of December 31, 2024, we had cash and cash equivalents of approximately \$3.3 million.

Net cash used in operating activities was \$25.9 million and \$18.1 million for the years ended December 31, 2024 and December 31, 2023, respectively. The increase in cash used in operating activities during 2024 when compared to 2023 was primarily due to the deferred revenue receipt of \$13 million in the prior year offset by lower payroll costs and amounts paid to suppliers during the period.

Net cash used in investing activities was \$0.6 million and \$1.1 million for the years ended December 31, 2024 and December 31, 2023, respectively. The decrease in cash used in investing activities during 2024 was primarily due to reduced purchases of laboratory equipment as compared to 2023.

Net cash provided by financing activities after associated costs was \$8.7 million and \$29.0 million for the years ended December 31, 2024 and December 31, 2023, respectively.

Net cash provided by financing activities in 2024 consisted of \$0.7 million in net cash received from the issuance of shares of common stock under our "at-the-market" facility during the period ended December 31, 2024, \$6.3 million in cash received before deducting offering expenses of \$0.2 million from the issuance and sale of the shares of common stock, pre-funded warrants and common warrants in a registered direct offering that closed in August 2024, and a further \$1.9 million in cash received before deducting offering expenses of \$0.1 million from the issuance and sale of common stock and common warrants in a registered direct offering to certain directors and executive officers of the Company as well as other investors that closed in December 2024.

This compares with \$8.0 million in net proceeds received from the sale and issuance of common stock in a registered public offering in February 2023, before deducting offering expenses of \$0.2 million, \$17.6 million in net proceeds received from the sale and issuance of common stock in a registered public offering in June 2023, before deducting offering expenses of \$0.1 million and \$2.7 million (€2.5 million) in net proceeds received from the sale and issuance of common stock in a private placement in December 2023. Additionally, in June 2023 a \$0.2 million loan was received from Namur Invest and in December 2023 a \$1.6 million loan was received from Wallonie Entreprendre S.A.

For additional information on our "at the market facility," refer to Note 7, Common Stock – Equity Distribution Agreements, of the Notes to consolidated financial statements included within this Report.

The following table summarizes our approximate contractual payments due by year as of December 31, 2024.

Approximate Payments (Including Interest) Due by Year

| | | | Greater than 5 |
|--|-----------|-------------|----------------|
| | Total | 2025 - 2029 | years |
| Description | \$ | \$ | \$ |
| Financing lease liabilities | 410,563 | 278,359 | 132,204 |
| Operating lease liabilities and short-term lease | 688,188 | 688,188 | - |
| Grants repayable | 422,221 | 252,108 | 170,113 |
| Long-term debt | 5,856,017 | 5,679,706 | 176,311 |
| Collaborative agreements obligations | 1,120,518 | 1,120,518 | <u>-</u> |
| Total | 8,497,507 | 8,018,879 | 478,628 |

We intend to use our cash reserves to predominantly fund further research and development, and commercialization activities. We do not have any substantial source of revenues and expect to rely on additional future financing, through the sale of licensing or distribution rights, grant funding and the sale of equity or debt securities to provide sufficient funding to execute our strategic plan. There is no assurance that we will be successful in raising further funds.

In the event additional financing is delayed, we will prioritize the completion of clinical validation studies for the purpose of the sale of licensing or distribution rights, and the maintenance of our patent rights. In the event of an ongoing lack of financing, it may be necessary to discontinue operations, which will adversely affect the value of our common stock.

We have not attained profitable operations and are dependent upon obtaining financing to pursue any extensive activities. For these reasons, our auditors included in their report on our audited financial statements for the year ended December 31, 2024, an explanatory paragraph regarding factors that raise substantial doubt that we will be able to continue as a going concern.

Results of Operations

Comparison of the Years Ended December 31, 2024 and December 31, 2023

The following table sets forth our results of operations for the years ended on December 31, 2024, and December 31, 2023, respectively (expressed in United Stated Dollars, except outstanding share numbers and percentages).

| | 2024 \$ | 2023 | Increase (Decrease) | Percentage Increase (Decrease) |
|---|-------------------|--------------|------------------------|--------------------------------------|
| Royalty | <u> </u> | 1,369 | (1,369) | (100%) |
| Service | 228,138 | 175,476 | 52,662 | 30% |
| Product | 1,005,373 | 598,457 | 406,916 | 68% |
| Total Revenues | 1,233,511 | 775,302 | 458,209 | 59% |
| | | | | |
| Research and development | 14,406,486 | 19,551,523 | (5,145,037) | (26%) |
| General and administrative | 8,487,562 | 10,368,314 | (1,880,752) | (18%) |
| Sales and marketing | 5,364,433 | 6,843,160 | (1,478,727) | (22%) |
| Total Operating Expenses | 28,258,481 | 36,762,997 | (8,504,516) | (23%) |
| | | | | |
| Grant income | 103,368 | 214,451 | (111,083) | (52%) |
| Loss on disposal of fixed assets | (34,731) | (15,843) | (18,888) | <(100%) |
| Interest income | 9,947 | 93,324 | (83,377) | (89%) |
| Interest expense | (340,362) | (221,622) | 118,740 | 54% |
| Gain on change in fair value of warrant liability | 28,763 | 240,311 | 211,548 | (88%) |
| Total Other Income (Expenses) | (233,015) | 310,621 | (543,636) | <(100%) |
| | | | | |
| Net Loss | (27,257,985) | (35,677,074) | (8,419,089) | (24%) |

Revenues

Our operations are still transitioning from a research and development stage to a commercialization stage. Revenue for the year ended December 31, 2024 was \$1,233,511 compared with \$775,302 for the year ended December 31, 2023. The main source of revenues during the years ended December 31, 2024 and December 31, 2023, was product sales of the Nu.Q® Vet Cancer Test and services revenue from our Nu.Q® Discover offering.

Operating Expenses

Total operating expenses decreased to \$28.3 million from \$36.8 million for the years ended December 31, 2024 and December 31, 2023, respectively, as a result of the factors described below.

Research and Development Expenses

Research and development expenses decreased to \$14.4 million from \$19.6 million for the years ended December 31, 2024 and December 31, 2023, respectively. The decrease in overall research and development expenditures during 2024 was primarily related to decreased clinical research costs and lower personnel expenses. FTE personnel numbers within this division decreased by fourteen to fifty two during 2024 compared to the prior year period.

| | 2024 | 2023 | Change |
|--|------------|------------|-------------|
| | \$ | \$ | \$ |
| Personnel expenses | 7,463,938 | 9,207,822 | (1,743,884) |
| Stock based compensation | 233,014 | 617,710 | (384,696) |
| Direct research and development expenses | 4,397,828 | 7,641,571 | (3,243,743) |
| Other research and development | 1,221,903 | 964,843 | 257,060 |
| Depreciation and amortization | 1,089,803 | 1,119,577 | (29,774) |
| Total research and development expenses | 14,406,486 | 19,551,523 | (5,145,037) |

General and Administrative Expenses

General and administrative expenses decreased to \$8.5 million from \$10.4 million for the years ended December 31, 2024 and December 31, 2023, respectively. The decrease in overall general and administrative expenditures during 2024 was primarily due to lower personnel expenses, legal and professional fees and stock-based compensation. The FTE personnel number within this division decreased by three to nineteen during 2024 compared to the prior year period.

| | 2024 | 2023 | Change |
|---|-----------|------------|-------------|
| | \$ | \$ | \$ |
| Personnel expenses | 4,220,539 | 5,492,705 | (1,272,166) |
| Stock-based compensation | 746,459 | 939,412 | (192,953) |
| Legal and professional fees | 1,909,076 | 2,116,494 | (207,418) |
| Other general and administrative | 1,447,719 | 1,579,241 | (131,522) |
| Depreciation and amortization | 163,769 | 240,462 | (76,693) |
| Total general and administrative expenses | 8,487,562 | 10,368,314 | (1,880,752) |

Sales and Marketing Expenses

Sales and marketing expenses decreased to \$5.4 million from \$6.8 million for the years ended December 31, 2024 and December 31, 2023, respectively. The decrease in overall sales and marketing expenditures was primarily due to decreased personnel expenses and lower stock-based compensation. The FTE personnel number within this division decreased by eight to fourteen during 2024 compared to the prior year period.

| | 2024 | 2023 | Change |
|------------------------------------|-----------|-----------|-------------|
| | \$ | \$ | \$ |
| Personnel expenses | 4,104,101 | 5,046,282 | (942,181) |
| Stock-based compensation | 289,069 | 732,422 | (443,353) |
| Other Sales & Marketing expenses | 922,602 | 1,012,868 | (90,266) |
| Depreciation and amortization | 48,661 | 51,588 | (2,927) |
| Total sales and marketing expenses | 5,364,433 | 6,843,160 | (1,478,727) |

Other Income (Expenses)

For the year ended December 31, 2024, other income decreased to approximately \$(0.2) million compared to other income of approximately \$0.3 million for the year ended December 31, 2023. This decrease in other income was primarily due to reduced grant income received of approximately \$0.1 million during 2024 compared to \$0.2 million in 2023 and a gain in the fair value of the warrant liability during 2023.

Net Loss

For the year ended December 31, 2024, the Company's net loss was \$27.3 million, a decrease of approximately \$(8.4) million, in comparison to a net loss of \$35.7 million for the year ended December 31, 2023. The change was a result of the factors described above.

Going Concern

We have not attained profitable operations and are dependent upon obtaining external financing to continue to pursue our operational and strategic plans. For these reasons, management has determined that there is substantial doubt that the business will be able to continue as a going concern without further financing.

Off-Balance Sheet Arrangements

We have no significant off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to stockholders.

Future Equity or Debt Financings

We may seek to obtain additional capital through the sale of debt or equity securities if we deem it desirable or necessary. These sales may include the sale of equity securities from time to time through our "at the market facility" with Jefferies LLC under an equity distribution agreement dated May 20, 2022 (see Note 7, Common Stock – Equity Distribution Agreements, of the Notes to consolidated financial statements). However, we may be unable to obtain such additional capital when needed, or on terms favorable to us or our stockholders, if at all. If we raise additional funds by issuing equity securities, the percentage ownership of our stockholders will be reduced, stockholders may experience additional dilution, or such equity securities may provide for rights, preferences or privileges senior to those of the holders of our common stock. If additional funds are raised through the issuance of debt securities, the terms of such securities may place restrictions on our ability to operate our business.

Critical Accounting Policies and Estimates

Our consolidated financial statements and accompanying notes have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"), applied on a consistent basis. The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods.

We also regularly evaluate estimates and assumptions related to deferred income tax asset valuation allowances, useful lives of property and equipment and intangible assets, deferred revenue valuation, revenue recognition, warrant liability, borrowing rate used in operating lease right-of-use asset and liability valuations, impairment analysis of intangible assets and valuations of stock-based compensation.

We base our estimates and assumptions on current facts, historical experiences, information from third-party professionals and various other factors that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the accrual of costs and expenses that are not readily apparent from other sources. Actual results may differ materially and adversely from our estimates. To the extent there are material differences between the estimates and the actual results, future results of operations could be affected.

We regularly evaluate the accounting policies that we use to prepare our consolidated financial statements. A complete summary of these policies is included in the Notes to our consolidated financial statements.

We have determined that for the periods reported in this Report the following accounting policies are critical in understanding our financial condition and results of operations:

Stock-Based Compensation

The Company records stock-based compensation in accordance with ASC 718, "Compensation – Stock Compensation". Under the provisions of ASC 718, stock-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized over the employee's requisite service period, which is generally the vesting period. The fair value of our stock options and warrants is estimated using a Black-Scholes option valuation model. Restricted stock units are valued based on the closing stock price on the date of grant.

Impairment of Long-Lived Assets

In accordance with ASC 360, "Property Plant and Equipment", the Company tests long-lived assets or asset groups for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset; significant adverse changes in the business climate or legal factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; and current expectation that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life. Recoverability is assessed based on the carrying amount of the asset and its fair value which is generally determined based on the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset, as well as specific appraisal in certain instances. An impairment loss is recognized when the carrying amount is not recoverable and exceeds fair value.

Foreign Currency Translation

The Company has functional currencies in Euros, U.S. Dollars and British Pounds Sterling and its reporting currency is the U.S. Dollar. Management has adopted ASC 830-20, "Foreign Currency Matters – Foreign Currency Transactions". All assets and liabilities denominated in foreign currencies are translated using the exchange rate prevailing at the balance sheet date. For revenues and expenses, the weighted average exchange rate for the period is used. Gains and losses arising on translation of foreign currency denominated transactions are included in Other Comprehensive Income.

Recently Issued Accounting Pronouncements

The Company has implemented all applicable new accounting pronouncements that are in effect. The Company does not believe that there are any other applicable new accounting pronouncements that have been issued that might have a material impact on its financial position or results of operations.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company and are not required to disclose this information.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

VOLITIONRX LIMITED

Consolidated Financial Statements

For the Years Ended December 31, 2024 and 2023

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of VolitionRx Limited:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of VolitionRx Limited("the Company") as of December 31, 2024, and 2023, the related consolidated statements of operations and comprehensive loss, stockholders' deficit, and cash flows for each of the years in the two-year period ended December 31, 2024 and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2024, and 2023, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America.

Explanatory Paragraph Regarding Going Concern

The accompanying financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has suffered recurring losses from operations, negative cash flows from operations and minimal revenues which raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud and performing procedures that respond to those risks. Such procedures included examining on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) related to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Sadler, Gibb & Associates, LLC

We have served as the Company's auditor since 2011.

Draper, UT March 31, 2025

VOLITIONRX LIMITED Consolidated Balance Sheets (Expressed in United States Dollars, except share numbers)

| | December 31, 2024 \$ | December 31, 2023 |
|---|----------------------------|----------------------|
| ASSETS | | J |
| Current Assets | | |
| Cash and cash equivalents | 3,264,429 | 20,729,983 |
| Accounts receivable, net | 110,574 | 242,617 |
| Prepaid expenses | 338,660 | 521,370 |
| Other current assets | 343,145 | 360,125 |
| Total Current Assets | 4.056.808 | 21.854.095 |
| Total Current Assets | 4,030,000 | 21,034,073 |
| Property and equipment, net | 4,429,152 | 5,523,013 |
| Operating lease right-of-use assets | 599,816 | 549,504 |
| Intangible assets, net | 313,747 | 23,886 |
| Total Assets | 9,399,523 | |
| 10tal Assets | 9,399,523 | 27,950,498 |
| LIABILITIES AND STOCKHOLDERS' DEFICIT | | |
| Current Liabilities | | |
| Accounts payable | 2,766,178 | 3,211,287 |
| Accrued liabilities | 3,476,903 | 3,928,761 |
| Deferred revenue | 230,000 | 106,600 |
| Management and directors' fees payable | 30.086 | 59.625 |
| Current portion of long-term debt | 860,223 | 1,207,007 |
| Warrant liability | 97,886 | 126,649 |
| Current portion of financing lease liabilities | 46,737 | 48,570 |
| Current portion of operating lease liabilities | 221,755 | 199,323 |
| Current portion of grants repayable | 60,979 | 55,855 |
| Total Current Liabilities | 7,790,747 | 8,943,677 |
| Town Carlotti Zaconite | 7,720,7.77 | 0,5 15,0 7 7 |
| Long-term debt, net of current portion | 3,952,846 | 3,624,860 |
| Deferred revenue, net of current portion | 22,663,400 | 22,893,400 |
| Finance lease liabilities, net of current portion | 328,338 | 400,022 |
| Operating lease liabilities, net of current portion | 410,686 | 378,054 |
| Grants repayable, net of current portion | 361,242 | 422,707 |
| Total Liabilities | 35,507,259 | 36,662,720 |
| Co. Maddand D. C. C | | |
| Stockholders' Deficit | | |
| Common stock | | |
| Authorized: 175,000,000 shares of common stock, at \$0.001 par value | 06.000 | 01.000 |
| Issued and outstanding: 96,097,485 shares and 81,898,321 shares, respectively | 96,098 | 81,898 |
| Additional paid-in capital | 204,154,994 | 194,448,414 |
| Accumulated other comprehensive income | 385,631 | 243,940 |
| Accumulated deficit | (229,544,343) | (202,576,507) |
| Total VolitionRx Limited Stockholders' Deficit | (24,907,620) | (7,802,255) |
| Non-controlling interest | (1,200,116) | (909,967) |
| Total Stockholders' Deficit | (26,107,736) | (8,712,222) |
| Total Liabilities and Stockholders' Deficit | 9,399,523 | 27,950,498 |

(The accompanying notes are an integral part of these consolidated financial statements)

Consolidated Statements of Operations and Comprehensive Loss (Expressed in United States Dollars, except share numbers)

| (Expressed in Omted States Donars, except share numbers) | For the Years Ended | |
|---|----------------------|----------------------------|
| | December 31, 2024 | December 31, 2023 \$ |
| Revenues | Ψ | Ψ |
| Royalty | - | 1,369 |
| Service | 228,138 | 175,476 |
| Product | 1,005,373 | 598,457 |
| Total Revenues | 1,233,511 | 775,302 |
| Operating Expenses | | |
| Research and development | 14,406,486 | 19,551,523 |
| General and administrative | 8,487,562 | 10,368,314 |
| Sales and marketing | 5,364,433 | 6,843,160 |
| Total Operating Expenses | 28,258,481 | 36,762,997 |
| Operating Loss | (27,024,970) | (35,987,695) |
| Other Income (Expenses) | | |
| Grant income | 103,368 | 214,451 |
| Loss on disposal of fixed assets | (34,731) | (15,843) |
| Interest income | 9,947 | 93,324 |
| Interest expense | (340,362) | (221,622) |
| Gain on change in fair value of warrant liability | 28,763 | 240,311 |
| Total Other Income (Expenses) | (233,015) | 310,621 |
| Net Loss | (27,257,985) | (35,677,074) |
| Net Loss attributable to Non-Controlling Interest | 290,149 | 357,996 |
| Net Loss attributable to VolitionRx Limited Stockholders | (26,967,836) | (35,319,078) |
| Other Comprehensive Income (Loss) | | |
| Foreign currency translation adjustments | 141,691 | 16,843 |
| Net Comprehensive Loss | (27,116,294) | (35,660,231) |
| | (0.24) | (0.50) |
| Loss Per Common Share Attributable to Common Stockholders - Basic and Diluted | (0.31) | (0.50) |
| Weighted Average Shares Outstanding – Basic and Diluted | 86,531,172 | 71,234,565 |

(The accompanying notes are an integral part of these consolidated financial statements)

Consolidated Statement of Stockholders' Deficit For the Years Ended December 31, 2024 and 2023 (Expressed in United States Pollers, except shows numbers)

(Expressed in United States Dollars, except share numbers)
Accumulated

| | Common Stock | | Additional Other Paid-in Comprehensive | | Accumulated | Non Controlling | | |
|---|--------------|--------------|--|--------------|---------------|--------------------|--------------|--|
| | Shares # | Amount \$ | Capital | Income \$ | Deficit \$ | Interest \$ | Total \$ | |
| Balance, December 31, 2022 | 57,873,379 | 57,873 | 164,397,468 | 227,097 | (167,257,429) | (551,971) | (3,126,962) | |
| Common stock issued for settlement of RSUs | 658,102 | 658 | (658) | - | - | - | - | |
| Common stock issued for cash, net of issuance costs and allocation to warrant liability | 23,380,134 | 23,380 | 27,997,696 | _ | _ | _ | 28,021,076 | |
| Common stock repurchased and retired | (13,294) | (13) | (31,759) | - | - | - | (31,772) | |
| Tax withholdings paid related to stock-based | | | | | | | | |
| compensation | - | - | (203,878) | - | - | - | (203,878) | |
| Stock-based compensation | - | - | 2,289,545 | - | - | - | 2,289,545 | |
| Foreign currency translation | - | - | - | 16,843 | - | - | 16,843 | |
| Net loss | | | | | (35,319,078) | (357,996) | (35,677,074) | |
| Balance, December 31, 2023 | 81,898,321 | 81,898 | 194,448,414 | 243,940 | (202,576,507) | (909,967) | (8,712,222) | |
| Common stock issued for settlement of RSUs | 730,395 | 731 | (731) | | | | - | |
| Common stock issued in lieu of license fee | 129,132 | 129 | 125,258 | | | | 125,387 | |
| Common stock issued for cash, net of issuance costs | 13,339,637 | 13,340 | 8,453,449 | | | | 8,466,789 | |
| Tax withholdings paid related to stock-based | | | | | | | | |
| compensation | | | (139,939) | | | | (139,939) | |
| Stock-based compensation | | | 1,268,543 | | | | 1,268,543 | |
| Foreign currency translation | | | | 141,691 | | | 141,691 | |
| Net loss | | | | | (26,967,836) | (290,149) | (27,257,985) | |
| Balance, December 31, 2024 | 96,097,485 | 96,098 | 204,154,994 | 385,631 | (229,544,343) | (1,200,116) | (26,107,736) | |

(The accompanying notes are an integral part of these consolidated financial statements)

VOLITIONRX LIMITED Consolidated Statements of Cash Flows (Expressed in United States Dollars)

| (Expressed in United States Dollars) | For the Years Ended | | |
|--|----------------------------|----------------------------|--|
| | December 31, 2024 \$ | December 31, 2023 \$ | |
| Operating Activities: | (25, 255, 225) | (25 (55 054) | |
| Net loss | (27,257,985) | (35,677,074) | |
| Adjustments to reconcile net loss to net cash used in operating activities: | 1 112 104 | 1 150 524 | |
| Depreciation and amortization | 1,113,184 | 1,152,534 | |
| Amortization of operating lease right-of-use assets | 225,748 | 260,743 | |
| Loss on disposal of fixed assets | 34,731 | 15,843 | |
| Stock based compensation | 1,268,543 | 2,289,545 | |
| Gain on change in fair value of warrant liability | (28,763) | (240,311) | |
| Changes in operating assets and liabilities: | 122.045 | (160 666) | |
| Accounts receivable | 132,045 | (169,666) | |
| Prepaid expenses Other comment coasts | 182,710 16,980 | 263,550 | |
| Other current assets | , | 87,441 | |
| Accounts payable and accrued liabilities Deferred revenue | (1,217,013) | 1,224,743 | |
| | (106,600) | 13,000,000 | |
| Management and directors' fees payable | (257 204) | (11,494) | |
| Operating lease liabilities | (257,204) | (258,853) | |
| Net Cash Used In Operating Activities | (25,893,624) | (18,062,999) | |
| Investing Activities: | | | |
| Purchases of property and equipment | (277,499) | (1,083,749) | |
| Purchase of license | (296,353) | - | |
| Net Cash Used In Investing Activities | (573,852) | (1,083,749) | |
| Financing Activities: | | | |
| Net proceeds from issuance of common shares | 8,592,177 | 28,388,036 | |
| Tax withholdings paid related to stock-based compensation | (139,939) | (203,878) | |
| Common stock repurchased | ` <u>-</u> | (31,772) | |
| Proceeds from grants repayable | - | 25,315 | |
| Proceeds from long-term debt | 1,368,502 | 1,854,877 | |
| Payments on long-term debt | (1,087,550) | (981,291) | |
| Payments on grants repayable | (28,213) | (22,096) | |
| Payments on financing leases | (47,723) | (46,506) | |
| Net Cash Provided By Financing Activities | 8,657,254 | 28,982,685 | |
| Effect of foreign exchange on cash and cash equivalents | 344,668 | 26,996 | |
| Net Change in Cash and Cash Equivalents | (17,465,554) | 9,862,933 | |
| Cash and Cash Equivalents – Beginning of Year | 20,729,983 | 10,867,050 | |
| Cash and Cash Equivalents – End of Year | 3,264,429 | 20,729,983 | |
| | <u> </u> | | |
| Supplemental Disclosures of Cash Flow Information: Cash paid for Interest | 340,362 | 221,622 | |
| Cash paid for microst | 340,302 | 221,022 | |
| Non-Cash Investing and Financing Activities: | | | |
| Common stock issued for settlement of vested RSUs | 731 | 658 | |
| Common stock issued for license rights | 125,258 | - | |
| Offering costs from issuance of common stock | 325,090 | 392,822 | |
| Fair value of warrants issued in connection with public offering at issuance | - | 366,960 | |
| Non-cash note payable | 294,603 | 356,258 | |
| (The eccempanying notes are an integral part of these consolidated financial statements) | | | |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 1 - Organization and Nature of Operations

The Company was incorporated under the laws of the State of Delaware on September 24, 1998. On September 22, 2011, the Company filed a Certificate for Renewal and Revival of Charter with the Secretary of State of Delaware. Pursuant to Section 312(1) of the Delaware General Corporation Law, the Company was revived under the new name of "VolitionRX Limited" and the name change became effective on October 11, 2011. On October 7, 2016, the Company amended its Certificate of Incorporation to reflect a name change to "VolitionRx Limited."

On October 6, 2011, the Company entered into a share exchange agreement with Singapore Volition Pte. Limited, a Singapore corporation incorporated on August 5, 2010 ("Singapore Volition"), and the shareholders of Singapore Volition. Pursuant to the terms of the share exchange agreement, the former shareholders of Singapore Volition held 85% of the issued and outstanding common shares of the Company. The issuance was deemed to be a reverse acquisition for accounting purposes and as such, Singapore Volition is regarded as the predecessor of the Company. The number of shares outstanding and per share amounts of the Company have been restated to recognize the foregoing recapitalization.

The Company's principal business objective through its subsidiaries is to develop and bring to market simple, easy to use, cost effective blood tests designed to help diagnose and monitor a range of life-altering diseases, including certain cancers and diseases associated with NETosis such as sepsis. The tests are based on the science of NucleosomicsTM, which is the practice of identifying and measuring nucleosomes in the bloodstream or other bodily fluid – an indication that disease is present. The Company has two wholly owned subsidiaries, Volition Global Services SRL ("Volition Global") which was formed in August 2021 and Singapore Volition. Singapore Volition has one wholly owned subsidiary, Belgian Volition SRL, a Belgium private limited liability company ("Belgian Volition"), which it acquired in September 2010. Belgian Volition has three subsidiaries, Volition Diagnostics UK Limited ("Volition Diagnostics"), which was formed in November 2015, Volition America, Inc. ("Volition America"), which was formed in February 2017, as well as its majority-owned subsidiary Volition Veterinary Diagnostics Development LLC ("Volition Vet"), which was formed in June 2019. Following the acquisition of Singapore Volition in 2011, the Company's fiscal year end was changed from August 31 to December 31.

Note 2 - Liquidity and Going Concern Assessment

Management assesses liquidity and going concern uncertainty in the Company's consolidated financial statements to determine whether there is sufficient cash on hand and working capital, including available borrowings on loans, to operate for a period of at least one year from the date the consolidated financial statements are issued or available to be issued, which is referred to as the "look-forward period", as defined in GAAP. As part of this assessment, based on conditions that are known and reasonably knowable to management will consider various scenarios, forecasts, projections, estimates and will make certain key assumptions, including the timing and nature of projected cash expenditures or programs, its ability to delay or curtail expenditures or programs and its ability to raise additional capital, if necessary, among other factors. Based on this assessment, as necessary or applicable, management makes certain assumptions around implementing curtailments or delays in the nature and timing of programs and expenditures to the extent it deems probable those implementations can be achieved and management has the proper authority to execute them within the look-forward period.

The Company has incurred substantial losses since its inception of \$\Sigma29.5\$ million, has negative cash flows from operations, and has minimal revenues and expects to continue to incur operating losses in the near-term. These factors raise substantial doubt about its ability to continue as a going concern. The Company believes that it has access to capital resources through possible public or private equity offerings, debt financings, corporate collaborations, related party funding, or other means to continue as a going concern.

The future of the Company as an operating business will depend on its ability to obtain sufficient capital contributions, financing and/or generate revenues as may be required to sustain its operations. Management plans to address the above as needed by, (a) securing additional grant funds, (b) obtaining additional financing through debt or equity transactions; (c) granting licenses and/or distribution rights to third parties in exchange for specified up-front and/or back-end payments, and (d) developing and commercializing its products in an efficient manner. Management continues to exercise tight cost controls to conserve cash.

The ability of the Company to continue as a going concern is dependent upon its ability to successfully accomplish the plans described in the preceding paragraph and to eventually attain profitable operations. The accompanying consolidated financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern. If the Company is unable to obtain adequate capital, it could be forced to cease operations.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles in the Unites States of America ("U.S. GAAP") as codified in the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC"). The consolidated financial statements of the Company are expressed in US dollars and the Company's fiscal year end is December 31.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company also regularly evaluates estimates and assumptions related to deferred income tax asset valuation allowances, useful lives of property and equipment and intangible assets, borrowing rate used in operating lease right-of-use asset and liability valuations, impairment analysis of intangible assets and valuations of stock-based compensation.

The Company bases its estimates and assumptions on current facts, historical experiences and various other factors that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the accrual of costs and expenses that are not readily apparent from other sources. The actual results experienced by the Company may differ materially and adversely from the Company's estimates. To the extent there are material differences between the estimates and the actual results, future results of operations could be affected.

Principles of Consolidation

The accompanying consolidated financial statements for the year ended December 31, 2024 include the accounts of the Company and its subsidiaries. The Company has two wholly owned subsidiaries, Singapore Volition Pte. Limited and Volition Global Services SRL. Singapore Volition has one wholly owned subsidiary, Belgian Volition SRL. Belgian Volition has three subsidiaries, Volition Diagnostics UK Limited, Volition America, Inc, and its one majority owned subsidiary Volition Veterinary Diagnostics Development LLC. See Note 10(f), Commitments and Contingencies – Other Commitments, for more information regarding Volition Vet, and Volition America. All intercompany balances and transactions have been eliminated in consolidation.

Cash and Cash Equivalents

The Company considers all highly liquid instruments with a maturity of three months or less at the time of issuance to be cash equivalents. As of December 31, 2024, and December 31, 2023, the Company had \$3,264,429 and \$20,729,983, respectively, in cash and cash equivalents. As of December 31, 2024, and December 31, 2023, the Company had \$1,125,750 and \$15,220,237, respectively, in its domestic accounts in excess of Federal Deposit insured limits. As of December 31, 2024, and December 31, 2023, the Company had \$820,066 and \$4,227,147, respectively, in its foreign accounts in excess of the Belgian Deposit insured limits. As of December 31, 2024, and December 31, 2023, the Company had \$140,289 and \$107,349, respectively, in its foreign accounts in excess of the Singapore Deposit insured limits. As of December 31, 2024, and December 31, 2023, the Company had \$356,985 and \$320,124, respectively, in its foreign accounts in excess of the UK Deposit insured limits.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies (continued)

Accounts Receivable

Accounts receivable consist of trade receivables arising from credit sales in the normal course of business. Accounts receivable are recorded at the time of sale, net of an allowance for current expected credit losses ("CECL") in accordance with ASC Topic 326, "Financial Instruments – Credit Losses." The Company estimates CECL based on historical bad debt experience, the aging of accounts receivable, the current creditworthiness of our customers, prevailing economic conditions, and reasonable and supportable forward looking information. Accounts receivable balances are written off when they are determined to be uncollectible. As of December 31, 2024, and December 31, 2023, the Company estimated an allowance for CECL of \$31,735.and \$0, respectively.

Property and Equipment

Property and equipment is stated at historical cost less accumulated depreciation. Leasehold improvements are amortized over the lesser of the base term of the lease or estimated life of the leasehold improvements. Depreciation is calculated using the straight-line method over the estimated useful lives. Refer to Note 4 - Property and Equipment for further details.

Basic and Diluted Net Loss Per Share

The Company computes net loss per share in accordance with ASC Topic 260, "Earnings Per Share," which requires presentation of both basic and diluted earnings per share ("EPS") on the face of the income statement. Basic EPS is calculated by dividing net loss by the weighted average number of shares of common stock outstanding during each period. Diluted loss per share is calculated by adjusting the weighted average number of shares of common stock outstanding for the dilutive effect, if any, of common stock equivalents. Common stock equivalents whose effect would be antidilutive are not included in diluted loss per share. The Company uses the treasury stock method to determine the dilutive effect, which assumes that all common stock equivalents have been exercised at the beginning of the period and that the funds obtained from those exercises were used to repurchase shares of common stock of the Company at the average closing market price during the period. There were 42,572,283 and 9,197,021 potential common stock equivalents from stock options, RSUs and warrants excluded from the diluted EPS calculations as their effect is anti-dilutive for the years ended December 31, 2024, and December 31, 2023, respectively.

Foreign Currency Translation

The Company has functional currencies in Euros, US Dollars and British Pounds Sterling and its reporting currency is the US Dollar. Management has adopted ASC Topic 830-20, "Foreign Currency Matters – Foreign Currency Transactions". All assets and liabilities denominated in foreign currencies are translated using the exchange rate prevailing at the balance sheet date. For revenues and expenses, the weighted average exchange rate for the period is used. Gains and losses arising on translation of foreign currency denominated transactions are included in other comprehensive income.

Other Comprehensive Income (Loss)

ASC Topic 220, "Other Comprehensive Income", establishes standards for the reporting and display of other comprehensive loss and its components in the financial statements. As of December 31, 2024, the Company had \$385,631 of accumulated other comprehensive income, relating to foreign currency translation.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies (continued)

Financial Instruments

Pursuant to ASC Topic 820, "Fair Value Measurements and Disclosures," an entity is required to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. ASC 820 establishes a fair value hierarchy based on the level of independent, objective evidence surrounding the inputs used to measure fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. ASC 820 prioritizes the inputs into three levels that may be used to measure fair value:

Level 1

Level 1 applies to assets or liabilities for which there are quoted prices in active markets for identical assets or liabilities.

Level 2

Level 2 applies to assets or liabilities for which there are inputs other than quoted prices that are observable for the assets or liabilities such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.

Level 3

Level 3 applies to assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

The Company's financial instruments consist principally of cash, accounts payable, accrued liabilities, notes payable, and amounts due to related parties. Pursuant to ASC 820, the fair value of cash is determined based on "Level 1" inputs, which consists of quoted prices in active markets for identical assets. The Company believes that the recorded values of all of our other financial instruments approximate their current fair values because of their nature and respective maturity dates or durations.

Included in the following table are the Company's major categories of assets and liabilities measured at fair value on a recurring basis as of December 31, 2024 and December 31, 2023.

Fair Value Measurements at December 31, 2024

| Description | Level 1 | Level 2 | Level 3 | Total \$ |
|---|---------|---------|---------|-------------|
| Liabilities | | | | |
| Warrant liability | | 97,886 | | 97,886 |
| Fair Value Measurements at December 31, 2023 Description | Level 1 | Level 2 | Level 3 | Total |
| Liabilities | | | | |
| Warrant liability | - | 126,649 | | 126,649 |
| | | | | |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies (continued)

Warrant Liability

The following table provides a roll-forward of the warrant liability measured at fair value on a recurring basis for the year ended December 31, 2024 and December 31, 2023, as follows:

| | <u> </u> |
|---|-----------|
| Balance at December 31, 2022 | - |
| Fair value of warrant liability, at issuance | 366,960 |
| Gain on change in fair value of warrant liability | (240,311) |
| Balance at December 31, 2023 | 126,649 |
| Gain on change in fair value of warrant liability | (28,763) |
| Balance at December 31, 2024 | 97,886 |

Income Taxes

Potential benefits of income tax losses are not recognized in the accounts until realization is more likely than not. The Company has adopted ASC Topic 740, "Accounting for Income Taxes" as of its inception. Pursuant to ASC 740, the Company is required to compute tax asset benefits for net operating losses carried forward. The potential benefits of net operating losses have not been recognized in these consolidated financial statements because the Company cannot be assured it is more likely than not it will utilize the net operating losses carried forward in future years. Refer to Note 9 for further details.

Segment Reporting

The Company reports segment information in accordance with ASC Topic 280, "Segment Reporting." Operating segments are defined as components of an enterprise for which separate financial information is available and evaluated regularly by the chief operating decision maker ("CODM") in deciding how to allocate resources and assess performance. The Company's CODM is its Chief Executive Officer.

Management has determined that the Company operates as a single operating and reportable segment. The CODM reviews financial information on a consolidated basis to make operating decisions, allocate resources, and assess performance, and does not evaluate discrete financial information for individual components such as subsidiaries, product lines, or geographic regions. The Company's principal business objective, through its subsidiaries, is to develop and bring to market simple, easy to use, cost effective blood tests designed to help diagnose and monitor a range of life-altering diseases.

Revenue Recognition

The Company recognizes revenue in accordance with ASC Topic 606, "Revenue from Contracts with Customers." Under ASC 606, the Company recognizes revenues when the customer obtains control of promised goods or services, in an amount that reflects the consideration which the Company expects to receive in exchange for those goods or services. The Company recognizes revenues following the five-step model prescribed under ASC 606: (i) identify contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenues when (or as) the Company satisfies the performance obligation(s).

The Company generates product revenues from the sale of its Nu.Q® Vet Cancer Test, from the sale of nucleosomes, and from the sale of research use only kits. In addition, revenue is received from external third parties for services the Company performs for them in its laboratory.

Revenues, and their respective treatment for financial reporting purposes under ASC 606, are as follows:

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies (continued)

Revenue Recognition (continued)

Royalty

The Company receives royalty revenues on the net sales recognized during the period in which the revenue is earned, and the amount is determinable from the licensee. These are presented under "Royalty" under the consolidated statements of operations. The Company does not have future performance obligations under this revenue stream. In accordance with ASC 606, the Company records these revenues based on estimates of the net sales that occurred during the relevant period from the licensee. Differences between actual and estimated royalty revenues are adjusted for in the period in which they become known.

Product

The Company includes revenue from product sales recognized during the period in which goods are shipped to third parties, and the amount is deemed collectable from the third parties. These are presented in "Product" in the consolidated statements of operations and comprehensive loss.

Service

The Company includes revenue recognized from laboratory services performed in the Company's laboratory on behalf of third parties under "Service" under the consolidated statements of operations.

For each development and/or commercialization agreement that results in revenues, the Company identifies all performance obligations, aside from those that are immaterial, which may include a license to intellectual property and know-how, development activities and/or transition activities. In order to determine the transaction price, in addition to any upfront payment, the Company estimates the amount of variable consideration at the outset of the contract either utilizing the expected value or most likely amount method, depending on the facts and circumstances relative to the contract. The Company constrains the estimates of variable consideration such that it is probable that a significant reversal of previously recognized revenue will not occur throughout the life of the contract. When determining if variable consideration should be constrained, management considers whether there are factors outside the Company's control that could result in a significant reversal of revenue. In making these assessments, the Company considers the likelihood and magnitude of a potential reversal of revenue. These estimates are re-assessed each reporting period as required.

Licensing

The Company includes revenue recognized from the licensing of certain rights to third parties in "Licensing" in the consolidated statements of operations and comprehensive loss. For each licensing, development and/or commercialization agreement that results in revenues, the Company identifies all performance obligations, aside from those that are immaterial, which may include a license to intellectual property and know-how, development activities and/or transition activities. In order to determine the transaction price, in addition to any upfront payment, the Company estimates the amount of variable consideration at the outset of the contract either utilizing the expected value or most likely amount method, depending on the facts and circumstances relative to the contract. The Company constrains (reduces) the estimates of variable consideration such that it is probable that a significant reversal of previously recognized revenue will not occur throughout the life of the contract. When determining if variable consideration should be constrained, management considers whether there are factors outside the Company's control that could result in a significant reversal of revenue. In making these assessments, the Company considers the likelihood and magnitude of a potential reversal of revenue. These estimates are re-assessed each reporting period as required.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies (continued)

Revenue Recognition (continued)

Revenue from Heska Agreement

On March 28, 2022, Belgian Volition entered into a Master License and Supply Agreement (the "License Agreement") with Heska Corporation ("Heska"), now an Antech company, a leading global provider of advanced veterinary diagnostics, pursuant to which Belgian Volition granted Heska worldwide exclusive rights to sell the Nu.Q® Vet Cancer Test at the point of care ("POC") initially for the screening of lymphoma and hemangiosarcoma in dogs ("Canine Lymphoma & HSA"), and non-exclusive rights to sell its Nu.Q® Vet Cancer Test in kit format ("Kits") through Heska's network of central reference laboratories ("Central Lab") initially for Canine Lymphoma & HSA.

Under and subject to the terms of the License Agreement, Belgian Volition received an upfront payment of \$10.0 million in 2022, and received further milestone payments in 2023 of (i) \$6.5 million upon the first commercial sale by or on behalf of Heska of a POC screening test for Canine Lymphoma & HSA and (ii) \$6.5 million upon the first commercial sale by or on behalf of Heska of a POC monitoring test for the same conditions. A further milestone payment of \$5.0 million will be payable to Volition pursuant to the Agreement upon the earlier of (a) the first commercial sale by or on behalf of Heska of a screening or monitoring test for lymphoma in felines, or (b) the 9-month anniversary of the first peer reviewed paper evidencing clinical utility for the screening or monitoring of lymphoma in felines being published in any one of a number of periodicals identified by the parties. Any further expansion of the License Agreement to cover the use of the Nu.Q® Vet Cancer Test for other cancer and non-cancer indications is subject to negotiation between the parties.

Pursuant to the terms of the License Agreement, Belgian Volition will also supply Central Lab Kits and will receive a pre-agreed price per test, adjusted annually for inflation. The price per test for POC key components ("Key Components") is also discounted to reflect the lower cost to Belgian Volition and additional assembly costs for Heska, as well as consideration for Heska's upfront and milestone payments. Heska will assemble the Key Components for use at the POC, and is additionally responsible for marketing and distribution efforts and related costs.

The License Agreement may be terminated by either party for a material breach by the other party, subject to notice and cure provisions, or in the event of the other party's insolvency. Heska also has the option to terminate if it is unable to adapt the Key Components for use on a POC platform. Unless earlier terminated, the License Agreement will continue in effect for an initial term of 22 years for POC and 5 years for Central Lab, with the Central Lab term then continuing on a rolling one-year basis for the POC term.

According to ASC Topic 606, "Revenue from Contracts with Customers", a performance obligation is a commitment to provide a distinct good or service or a series of distinct goods or services. Goods and services that are not distinct are bundled with other goods or services in the contract until a bundle of goods or services that is distinct is created. A good or service promised to a customer is distinct if the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer and the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract.

In conjunction with the License Agreement, the Company evaluated whether or not the performance obligations granted under the License Agreement were distinct and concluded that they were not distinct as Heska could not benefit from the license without the supply (manufacturing) services. The supply services are highly specialized and are dependent on the supply of the product from the Company. As such, the performance obligations granted under the License Agreement were combined to constitute a single performance obligation and the Company accounts for them as a single contract.

During the first quarter of 2022, the Company received a \$10.0 million upfront payment under the License Agreement and further upfront payments totaling \$13.0 million in the fourth quarter of 2023, which is included as deferred revenue on the accompanying consolidated balance sheet as of \$23.0 million. The Company allocated the milestone payments that were not constrained to the single performance obligation in the contract. The Company expects to recognize the total \$28.0 million of milestone amounts under the License Agreement over time using an output method based on Key Components and Kits supplied to Heska.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies (continued)

Revenue Recognition (continued)

In determining the transaction price, the Company analyzed the variable consideration and whether or not such variable consideration was constrained. The Company will reassess this variable consideration at each reporting period and adjust the transaction price, if necessary. The total Key Components and Kits that the Company expects to manufacture for Heska over the life of the contract is a significant judgment in recognizing revenue.

Sales to the Company's three largest customers represented over 67% of total sales for the year ended December 31, 2024 and over61% of total sales for the year ended December 31, 2023.

Deferred Revenue (Contract Liabilities) and Contract Assets

Deferred revenue consists of amounts for which the Company has an unconditional right to bill, and/or amounts for which payment has been received (including non-refundable amounts) but have not been recognized as revenue because the related performance obligations are deemed incomplete. During 2024, \$106,600 was recognized as deferred revenue based on the estimated number of components and kits sold during the year. As of December 31, 2024, the Company recorded \$22.9 million as deferred revenue in respect of a non-refundable payment received in relation to a licensing and product supply agreement with Heska Corporation. As of December 31, 2023, the Company recorded \$23.0 million as deferred revenue.

Research and Development

In accordance with ASC Topic 730, "Research and Development," the Company follows the policy of expensing its research and development costs in the period in which they are incurred. The Company incurred research and development expenses of \$14.4 million and \$19.6 million during the years ended December 31, 2024 and 2023, respectively.

Impairment of Long-Lived Assets

In accordance with ASC Topic 360, "Property Plant and Equipment", the Company reviews the carrying value of long-lived assets such as intangible assets with definite lives, property and equipment, and right-of-use ("ROU") assets for impairment whenever events or changes in circumstances indicate the carrying amount of the assets might not be recoverable. These events and circumstances may include significant decreases in the market price of an asset or asset group, significant changes in the extent or manner in which an asset or asset group is being used by the Company or in its physical condition, a significant change in legal factors or in the business climate, a history or forecast of future operating or cash flow losses, significant disposal activity, a significant decline in the Company's share price, a significant decline in revenue or adverse changes in the economic environment. If such facts indicate a potential impairment, the Company would assess the recoverability of an asset group by determining if the carrying value of the asset group exceeds the sum of the projected undiscounted cash flows expected to result from the use and eventual disposition of the assets over the remaining economic life of the primary asset in the asset group. If the recoverability test indicates that the carrying value of the asset group is not recoverable, the Company will estimate the fair value of the asset group using appropriate valuation methodologies, which would typically include an estimate of discounted cash flows. Any impairment would be measured as the difference between the asset group's carrying amount and its estimated fair value. Impairment losses of \$nil were recognized during the years ended December 31, 2024, and December 31, 2023, respectively.

Warrant Liability

The Company accounts for warrants as either equity-classified or liability-classified instruments based on an assessment of the specific terms of the warrants in accordance with ASC Topic 480, "Distinguishing Liabilities from Equity," and ASC Topic 815-40, "Contracts in Entity's Own Equity." This assessment, which requires the use of professional judgment, considers whether the warrants are freestanding financial instruments pursuant to ASC 480, meet the definition of a liability pursuant to ASC 480, and meet all of the requirements for equity classification under ASC 815-40, including whether the warrants are indexed to the Company's own shares and whether the events where holders of the warrants could potentially require net cash settlement are within the Company's control, among other conditions for equity classification. Warrant liabilities are recognized at fair value, with changes in fair value recognized in the consolidated statement of operations each period.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies (continued)

Stock-Based Compensation

The Company records stock-based compensation in accordance with ASC Topic 718, "Compensation – Stock Compensation". Under the provisions of ASC 718, stock-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized over the employee's requisite service period, which is generally the vesting period. The fair value of our stock options and warrants is estimated using a Black-Scholes option valuation model. Restricted stock units ("RSUs)" are valued based on the closing stock price on the date of grant (intrinsic value method). The fair value of RSUs that include a market vesting condition will be measured on the grant date using a Monte Carlo Simulation of a Geometric Brownian Motion stock path model and incorporating the probability of vesting occurring, with the estimated fair value of these awards will be recognized over the derived service period (as determined by the valuation model), with such recognition occurring regardless of whether the market condition is met. The Company has elected to recognize forfeitures as they occur. Refer to Note 8 for further details.

Operating Leases

The Company accounts for leases in accordance with ASC Topic 842, "Leases." The Company determines whether a contract is a lease at contract inception or for a modified contract at the modification date. At inception or modification, the Company recognizes right-of-use assets ("ROU") and related lease liabilities on the balance sheet for all leases greater than one year in duration. Lease liabilities and their corresponding ROU assets are initially measured at the present value of the unpaid lease payments as of the lease commencement date. If the lease contains a renewal and/or termination option, the exercise of the option is included in the term of the lease if the Company is reasonably certain that a renewal or termination option will be exercised. As the Company's leases do not provide an implicit rate, the Company uses an estimated incremental borrowing rate ("IBR") based on the information available at the commencement date of the respective lease to determine the present value of future payments. The IBR is determined by estimating what it would cost the Company to borrow a collateralized amount equal to the total lease payments over the lease term based on the contractual terms of the lease and the location of the leased asset.

Operating lease payments are recognized as an expense on a straight-line basis over the lease term in equal amounts of rent expense attributed to each period during the term of the lease, regardless of when actual payments are made. This generally results in rent expense in excess of cash payments during the early years of a lease and rent expense less than cash payments in later years. The difference between rent expense recognized and actual rental payments is typically represented as the spread between the ROU asset and lease liability.

When calculating the present value of minimum lease payments, we account for leases as one single lease component if a lease has both lease and non-lease fixed cost components. Variable lease and non-lease cost components are expensed as incurred.

We do not recognize ROU assets and lease liabilities for short-term leases that have an initial lease term of 12 months or less. We recognize the lease payments associated with short-term leases as an expense on a straight-line basis over the lease term.

Grant Income

The Company receives funding from public bodies for a proportion of the costs of specific projects. Funds are received in line with claims submitted for the agreed expenditure. The Company recognizes grant income once claims submitted are approved and funds are received. General working capital funding received at the commencement of a project is treated as deferred income and is recorded in accrued liabilities until it has been utilized for the expenditure claimed. Funding received that is repayable is shown as a liability.

Reclassifications

Certain reclassifications within operating expenses have been made to the prior period's financial statements to conform to the current period financial statement presentation. There is no impact in total to the results of operations and cash flows in all periods presented.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 3 - Summary of Significant Accounting Policies (continued)

Concentration of Credit Risk

Financial instruments that potentially subject the company to concentration of credit risk consist primarily of accounts receivable.

The company performs ongoing credit evaluations of its customers and maintains allowances for potential credit losses. Management does not believe significant credit risks exist at December 31, 2024.

As at December 31, 2024 the two largest customer balances represented over 65% of the total outstanding accounts receivable balance.

Recently Adopted Accounting Pronouncements

In November 2023, the FASB issued ASU 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures," which updates reportable segment disclosure requirements by requiring disclosures of significant reportable segment expenses that are regularly provided to the CODM and included within each reported measure of a segment's profit or loss. ASU 2023-07 also requires disclosure of the title and position of the individual identified as the CODM and an explanation of how the CODM uses the reported measures of a segment's profit or loss in assessing segment performance and deciding how to allocate resources. ASU 2023-07 is effective for annual periods beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. The Company adopted ASU 2023-07 retrospectively on December 31, 2024. The adoption of ASU 2023-07 did not have a material impact on the Company's consolidated financial statements.

Recently Issued Accounting Pronouncements Not Yet Adopted

In August 2023, the FASB issued ASU 2023-05, "Business Combinations – Joint Venture Formations (Subtopic 805-60): Recognition and Initial Measurement," which requires a newly-formed joint venture to apply a new basis of accounting to its contributed net assets, resulting in the joint venture initially measuring its contributed net assets at fair value on the formation date. ASU 2023-05 is effective for all joint venture formations with a formation date on or after January 1, 2025, with early adoption permitted. These amendments are to be applied prospectively, with retrospective application permitted for joint ventures formed before the effective date. The Company is currently evaluating the impact this standard will have on its consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures," which enhances the transparency and decision usefulness of income tax disclosures by requiring; (1) consistent categories and greater disaggregation of information in the rate reconciliation and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. ASU 2023-09 is effective for fiscal years beginning after December 15, 2025, with early adoption permitted. These amendments are to be applied prospectively, with retrospective application permitted. The Company is currently evaluating the impact this standard will have on its consolidated financial statements.

In November 2024, the FASB issued ASU 2024-03, "Income Statement – Reporting Comprehensive Income – Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses," which requires the disaggregated disclosure of specific expense categories, including purchases of inventory, employee compensation, depreciation, and amortization included in each relevant expense caption presented on the statement of operations. The standard also requires disclosure of qualitative description of the amounts remaining in relevant expense captions that are not separately disaggregated quantitatively, as well as the total amount of selling expenses and an entity's definition of selling expenses. ASU 2024-03 is effective for annual periods beginning after December 15, 2026, and interim periods beginning after December 15, 2027. The Company is currently evaluating the impact this standard will have on its consolidated financial statements.

The Company currently believes there are no other issued and not yet effective accounting standards that are materially relevant to its consolidated financial statements.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 4 - Property and Equipment

The Company's property and equipment consist of the following amounts as of December 31, 2024 and December 31, 2023:

| | | December 31, 2024 | December 31, 2023 |
|-----------------------------------|---------------|----------------------|----------------------|
| | Useful Life | Cost \$ | Cost \$ |
| Computer hardware and software | 3 years | 701,505 | 724,534 |
| Laboratory equipment | 5 years | 4,600,168 | 4,753,253 |
| Office furniture and equipment | 5 years | 359,337 | 378,800 |
| Buildings | 30 years | 1,981,247 | 2,113,031 |
| Building improvements | 5-15 years | 1,637,139 | 1,610,016 |
| Land | Not amortized | 124,206 | 132,468 |
| Total property and equipment | | 9,403,602 | 9,712,102 |
| Less accumulated depreciation | | 4,974,450 | 4,189,089 |
| Total property and equipment, net | | 4,429,152 | 5,523,013 |

During the years ended December 31, 2024 and December 31, 2023, the total capital expenditure was \$.3 million and \$1.1 million, respectively, the majority of which was from purchases of laboratory equipment.

During the years ended December 31, 2024 and December 31, 2023, the Company recognized § .1 million and \$1.1 million, respectively, in depreciation expense.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 5 - Intangible Assets

The Company's intangible assets consist of patents, mainly acquired in the acquisition of Belgian Volition. The patents are being amortized over the assets' estimated useful lives, which range from 8 to 20 years.

| | Cost | Accumulated Amortization | December 31, 2024 Net Carrying Value |
|---------|-----------|-----------------------------|---|
| | \$ | \$ | \$ |
| Patents | 1,354,274 | 1,040,527 | 313,747 |
| | | | December 31, 2023 |
| | | Accumulated | Net Carrying |
| | Cost | Amortization | Value |
| | | \$ | \$ |
| Patents | 1,130,936 | 1,107,050 | 23,886 |

During the years ended December 31, 2024 and December 31, 2023, the Company recognized \$nil and \$4,910, respectively, in amortization expense.

The Company amortizes the long-lived assets on a straight-line basis with terms ranging from8 to 20 years. The annual estimated amortization schedule over the next five years is as follows:

| 2025 | \$ 20,748 |
|-------------------------|---------------|
| 2025 2026 | \$ 20,748 |
| 2027 | \$ 20,748 |
| 2028 | \$ 20,748 |
| 2029 | \$ 20,748 |
| Greater than 5 years | \$ 210,007 |
| Total Intangible Assets | \$ 313,747 |

The Company periodically reviews its long-lived assets to ensure that their carrying value does not exceed their fair market value. The Company carried out such a review in accordance with ASC 360 as of December 31, 2024. The result of this review confirmed that the ongoing value of the patents was not impaired as of December 31, 2024.

Note 6 - Related Party Transactions

See Note 7 for common stock issued to related parties and Note 8 for stock options, warrants and RSUs issued to related parties. The Company has agreements with related parties for the purchase of products and consultancy services which are accrued under accruals and management and directors' fees payable (see consolidated balance sheets).

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 7 - Common Stock

As of December 31, 2024, the Company was authorized to issue 175 million shares of common stock par value \$0.001 per share, of which 96,097,485 and 81,898,321 shares were issued as of December 31, 2024 and December 31, 2023, respectively.

Common Stock Issued Pursuant to License Agreement

On March 12, 2024, the Company issued 129,132 shares of restricted common stock to EpiCypher, Inc. at a price of \$0.97 per share as partial consideration for license rights in connection with a License Agreement between EpiCypher and Belgian Volition.

Equity Capital Raises

2024

On August 8, 2024, the Company entered into a securities purchase agreement with a purchaser pursuant to which the Company issued and sold to such purchaser, in a registered direct offering pursuant to the Company's "shelf" registration statement on Form S-3 (declared effective by the SEC on November 8, 2021, File No. 333-259783) (as amended and supplemented from time to time, the "2021 Form S-3") (the "2024 Equity Capital Raise"), an aggregate of 9,170,000 shares of the Company's common stock, prefunded warrants to purchase up to 3,557,273 shares of the Company's common stock (the "Pre-Funded Warrants"), Series A common stock warrants to purchase up to 12,727,273 shares of the Company's common stock (the "Series A Warrants") and Series B common stock warrants to purchase up to 12,727,273 shares of the Company's common stock (the "Series B Warrants" and, together with the Series A Warrants, the "Common Warrants" and, together with the shares of common stock offered in the 2024 Equity Capital Raise and the Pre-Funded Warrants, the "August 2024 Securities"). The Pre-Funded Warrants have an exercise price of \$0.001, are immediately exercisable and can be exercised at any time after their original issuance until such Pre-Funded Warrants are exercised in full. Each of the respective Common Warrants have an exercise price of \$0.57 per share. The Series A Warrants are exercisable on or after February 12, 2025 (the "Initial Exercise Date") and will be exercisable until the earlier of (a) the two (2) year anniversary of the Initial Exercise Date and (b) the date that is 60 days following the Company's public announcement on a Current Report on Form 8-K of the occurrence of the Company entering into one or more agreements relating to the development and commercialization of a product, technology, or process in the human space, provided at least one such agreement covers a territory that includes all or a part of the European Union, the United States, the United Kingdom, Japan, or China, and which, during the term of all such agreements and pursuant to the terms thereof, collectively such agreements include aggregate (i) potential milestone payments to the Company of at least \$10.0 million, or (ii) potential milestone payments to the Company of at least \$5.0 million and potential total payments of at least \$20.0 million. The Series B Warrants are exercisable on or after the Initial Exercise Date, and will be exercisable until the earlier of (a) the five (5) year anniversary of the Initial Exercise Date and (b) the date that is six (6) months following the Company's public announcement on a Current Report on Form 8-K of the occurrence of the Company or a third party receiving the first U.S. Food and Drug Administration ("FDA") approval of a product, technology, or process in the human space utilizing the Company's intellectual property, provided, however, that the FDA's approval of a protocol for a clinical trial of a product, technology, or process in the human space, or the FDA's acceptance of data from invitro trials or in vivo animal trials, shall not constitute "FDA approval" for purposes of this definition of this milestone. H.C. Wainwright & Co. acted as the exclusive placement agent for the Company in the offering. The combined offering price for a share of common stock and accompanying Common Warrants was \$0.55 and the combined offering price for a Pre-Funded Warrant and accompanying Common Warrants was \$0.549. The net proceeds received by the Company for the issuance and sale of the August 2024 Securities was \$6.4 million, before deducting offering expenses of \$0.1 million paid by the Company. In addition, the Company issued warrants to designees of the placement agent to purchase an aggregate of 381,818 shares of Company common stock on substantially the same terms as the Series B Warrants at an exercise price of \$0.6875 per share. The net proceeds above assumes the exercise of the Pre-Funded Warrants but excludes any proceeds arising from the exercise of the Common Warrants or the placement agent warrants.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 7 - Common Stock (continued)

Equity Capital Raises (continued)

On December 5, 2024, the Company entered into a securities purchase agreement with several purchasers, including certain of its directors and executive officers (the "Insider Investors"), pursuant to which the Company issued and sold to such purchasers, in a registered direct offering pursuant to the 2021 Form S-3, an aggregate of (i) 445,648 shares to the Insider Investors at an offering price of \$0.5722 per share and (ii) a further 2,857,389 shares of our common stock (the "Warrant Investor Shares" and, together with the Insider Shares, the "December 2024 Shares"), together with 2,857,389 common stock purchase warrants to purchase up to 2,857,389 shares of our common stock (the "Form A Warrants") and 2,857,389 common stock purchase warrants to purchase of our common stock (the "Form B Warrants" and, together with the Form A Warrants, the "December 2024 Warrants"), at a combined offering price of \$0.5722 per Warrant Investor Share and accompanying December 2024 Warrants, to certain existing stockholders of the Company and new investors (collectively, the "Warrant Investors"). The December 2024 Shares, Form A Warrants, and Form B Warrants is exercise price per share of \$0.5722 and each Form B Warrant has an exercise price per share of \$0.71525. Each December 2024 Warrant is exercisable on or after December 9, 2024 through and until December 9, 2029. The net proceeds received by the Company for the issuance and sale of the December 2024 Shares and the December 2024 Warrants was \$1.9 million, before deducting offering expenses of \$0.1 million paid by the Company. The net proceeds above excludes any proceeds arising from the exercise of the December 2024 Warrants.

2023

On February 17, 2023, the Company entered into an underwriting agreement with Newbridge Securities Corporation ("Newbridge") in connection with an underwritten public offering of 4,945,000 shares of the Company's common stock, which includes Newbridge's exercise in full of its overallotment option, pursuant to the "2021 Form S-3". The public offering price was \$1.75 per share. The underwriter purchased the shares from the Company at a price of \$1.6275 per share on February 22, 2023, after taking into account the underwriting discounts and commissions. The net proceeds received by the Company for the sale and issuance of the shares were approximately \$8.0 million, before deducting offering expenses of \$0.2 million paid by the Company.

On June 1, 2023, the Company entered into an underwriting agreement with Prime Executions, Inc. dba Freedom Capital Markets ("Freedom") acting as the book-running manager of the offering and Bancroft Capital, LLC acting as co-manager in connection with an underwritten public offering of 14,950,000 shares of the Company's common stock, which includes Freedom's exercise in full of its overallotment option, pursuant to the 2021 Form S-3. The underwriter purchased 13,000,000 shares and 1,950,000 shares from the Company on June 5 and June 23, 2023, respectively. The public offering price was \$1.27 per share. The underwriter purchased the shares from the Company at a price of \$1.1811 per share. The net proceeds received by the Company for the sale and issuance of the shares were approximately \$7.6 million, before deducting offering expenses of \$0.1 million paid by the Company. In addition, the Company issued warrants to purchase an aggregate of 448,500 shares of Company common stock to Freedom, at an exercise price of \$2.00 per share.

The Company evaluated the warrants as either equity-classified or liability-classified instruments based on an assessment of the specific terms of the warrants and applicable authoritative guidance in ASC 480 and ASC 815-40. The Company determined the warrants issued in the Freedom offering failed the indexation guidance under ASC 815-40, specifically, the warrants provide for a Black-Scholes value calculation in the event of certain transactions ("Fundamental Transactions"), which includes a floor on volatility utilized in the value calculation at 100% or greater. The Company has determined that this provision introduces leverage to the holders of the warrants that could result in a value that would be greater than the settlement amount of a fixed-for-fixed option on the Company's own equity shares. Accordingly, pursuant to ASC 815-40, the Company has classified the fair value of the warrants as a liability upon issuance and marked to market each reporting period in the Company's consolidated statement of operations until their exercise or expiration.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 7 - Common Stock (continued)

The fair values of the warrants issued to Freedom as of December 31, 2024, December 31, 2023 and Issuance date June 1, 2023, are disclosed in the following table. The warrant liabilities were estimated using the Black-Scholes pricing model with the following assumptions.

| | Total fair value | Risk-free interest rate | Expected volatility | Expected life (years) | Expected dividend yield |
|----------------------------|-------------------------|----------------------------|---------------------|-----------------------|-------------------------|
| (At Issuance) June 1, 2023 | \$ 366,960 | 3.70% | 71.56% | 5.03 | - |
| | | | | | - |
| December 31, 2023 | \$ 126,649 | 3.89% | 76.30% | 4.44 | - |
| | | | | | |
| December 31, 2024 | \$ 97,886 | 4.29% | 88.44% | 3.44 | - |

On December 5, 2023, the Company issued 3,205,431 shares of its common stock in a private placement to Wallonie Entreprendre S.A at a purchase price of \$0.8337 per share, or an aggregate purchase price of approximately \$2.7 million (€2.5 million). The shares of common stock will not be registered under the Securities Act of 1933, as amended (the "Securities Act") or any state securities laws and unless so registered may not be offered or sold in the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act and applicable state securities laws.

Equity Distribution Agreements

2024

On May 20, 2022, the Company entered into an equity distribution agreement (the "2022 EDA") with Jefferies LLC ("Jefferies") to sell shares of the Company's common stock, with an aggregate offering price of up to \$25.0 million, from time to time through an "at the market" offering pursuant to the 2021 Form S-3 through Jefferies acting as the Company's agent and/or principal. The Company is not obligated to sell any shares under the 2022 EDA.

During the year ended December 31, 2024, the Company raised aggregate net proceeds (net of broker commissions and fees) of approximately \$83,289 under the 2022 EDA through the sale of 866,600 shares of its common stock. As of December 31, 2024, the Company has raised aggregate net proceeds (net of broker commissions and fees) of approximately \$2.1 million under the 2022 EDA through the sale of 1,497,132 shares of its common stock. See Note 11 for additional details regarding sales under the 2022 EDA subsequent to December 31, 2024.

2023

During the year ended December 31, 2023, the Company raised aggregate net proceeds (net of broker commissions and fees) of approximately \$0.7 million under the 2022 EDA through the sale of 279,703 shares of its common stock. As of December 31, 2023, the Company had raised aggregate net proceeds (net of broker commissions and fees) of approximately \$1.5 million under the 2022 EDA through the sale of 630,532 shares of its common stock.

Issuances Upon Warrant Exercises

2024 and 2023

For the years ended December 31, 2024 and December 31, 2023 no warrants were exercised.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 7 - Common Stock (continued)

Stock Option Exercises

2024 and 2023

During the year ended December 31, 2024 and December 31, 2023 no shares of common stock were issued pursuant to the exercise of stock options.

Stock Options Expired / Cancelled

<u>2024</u>

The table below summarizes the stock options granted under the Company's 2015 Stock Incentive Plan (the "2015 Plan") or the 2011 Equity Incentive Plan (the "2011 Plan"), as indicated, that expired or were cancelled during the year ended December 31, 2024.

| Equity Incentive Plan | Options (#) | Grant Date | Options Forfeited (#) | Grant Price (\$) | Forfeiture Date |
|------------------------------|-------------|-------------|-----------------------|------------------|-----------------|
| 2015 | 12,500 | Sep 7, 2021 | 12,500 | 3.40 | Nov 4, 2024 |
| 2015 | 12,500 | Sep 7, 2021 | 12,500 | 3.40 | Nov 4, 2024 |
| 2015 | 18,410 | Mar 8, 2021 | 18,410 | 3.40 | Apr 16, 2024 |
| 2015 | 18,411 | Mar 8, 2021 | 18,411 | 3.40 | Apr 16, 2024 |
| | 61,821 | | 61,821 | | |

RSU Settlements

<u>2024</u>

During the year ended December 31, 2024 we issued a total of 730,395 shares of common stock from the vesting of RSUs, as follows:

| Equity Incentive Plan | RSUs # | Vesting Date | Shares Issued # | Shares Withheld for Taxes # |
|-----------------------|---------|--------------|-----------------|--------------------------------|
| 2015 | 21,582 | Feb 8, 2024 | 21,582 | - |
| 2015 | 9,000 | Mar 1, 2024 | 6,057 | 2,943 |
| 2015 | 44,217 | Mar 27, 2024 | 40,530 | 3,687 |
| 2015 | 51,000 | Apr 4, 2024 | 32,337 | 18,663 |
| 2015 | 50,000 | May 1, 2024 | 34,496 | 15,504 |
| 2015 | 11,500 | Jun 1, 2024 | 6,670 | 4,830 |
| 2015 | 14,962 | Jun 15, 2024 | 11,684 | 3,278 |
| 2015 | 4,667 | Jul 13, 2024 | 3,165 | 1,502 |
| 2015 | 29,000 | Aug 15, 2024 | 21,291 | 7,709 |
| 2015 | 2,000 | Sep 11, 2024 | 2,000 | - |
| 2015 | 2,500 | Sep 21, 2024 | 2,500 | - |
| 2015 | 332,775 | Sep 28, 2024 | 265,300 | 67,475 |
| 2015 | 337,666 | Oct 04, 2024 | 272,242 | 65,424 |
| 2015 | 333 | Nov 29, 2024 | 333 | - |
| 2015 | 13,334 | Dec 11, 2024 | 10,208 | 3,126 |
| | 924,536 | | 730,395 | 194,141 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 7 - Common Stock (continued)

RSU Settlements (continued)

<u>2023</u>

During the year ended December 31, 2023 we issued a total of658,102 shares of common stock from the vesting of RSUs, as follows:

| | | | | Shares Withheld |
|-----------------------|---------|--------------|-----------------|-----------------|
| Equity Incentive Plan | RSUs # | Vesting Date | Shares Issued # | for Taxes # |
| 2015 | 4,000 | Feb 8, 2023 | 2,369 | 1,631 |
| 2015 | 15,000 | Mar 1, 2023 | 9,609 | 5,391 |
| 2015 | 15,000 | Mar 25, 2023 | 15,000 | - |
| 2015 | 2,500 | Apr 4, 2023 | 1,759 | 741 |
| 2015 | 13,500 | Apr 4, 2023 | 7,995 | 5,505 |
| 2015 | 35,000 | Apr 4, 2023 | 22,610 | 12,390 |
| 2015 | 50,000 | May 1, 2023 | 35,707 | 14,293 |
| 2015 | 4,000 | Jun 1, 2023 | 2,270 | 1,730 |
| 2015 | 7,500 | Jun 1, 2023 | 4,257 | 3,243 |
| 2015 | 208,809 | Aug 3, 2023 | 167,809 | 41,000 |
| 2015 | 34,102 | Aug 15, 2023 | 23,764 | 10,338 |
| 2015 | 12,000 | Sep 7, 2023 | 7,046 | 4,954 |
| 2015 | 12,500 | Sep 21, 2023 | 7,434 | 5,066 |
| 2015 | 357,346 | Oct 4, 2023 | 298,738 | 58,608 |
| 2015 | 19,904 | Oct 4, 2023 | 6,883 | 13,021 |
| 2015 | 21,583 | Oct 13, 2023 | 21,583 | - |
| 2015 | 21,750 | Nov 1, 2023 | 21,750 | - |
| 2015 | 334 | Nov 29, 2023 | 334 | - |
| 2015 | 2,000 | Dec 15, 2023 | 1,185 | 815 |
| | 836,828 | | 658,102 | 178,726 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-Based Compensation

a) (i) Common Stock Warrants

The following table summarizes the changes in warrants outstanding of the Company during the year ended December 31, 2024 and December 31, 2023:

| | | Weighted |
|----------------------------------|------------|----------|
| | | Average |
| | | Exercise |
| | Warrants # | Price \$ |
| Outstanding at December 31, 2022 | 539,000 | 3.800 |
| Granted | 448,500 | 2.000 |
| Expired | (125,000) | 2.470 |
| Outstanding at December 31, 2023 | 862,500 | 3.050 |
| Granted - Pre Funded Warrants | 3,557,273 | 0.001 |
| Granted - Form A Warrants | 2,857,389 | 0.5722 |
| Granted - Form B Warrants | 1,428,693 | 0.7153 |
| Expired | - | - |
| Outstanding at December 31, 2024 | 8,705,855 | 0.608 |
| | | |
| Exercisable at December 31, 2024 | 8,705,855 | 0.608 |

See also Warrants - Series A and Series B Common Stock Warrants below regarding additional warrants not included in the table above.

Warrants Granted

2024

On August 12, 2024, in connection with a registered direct offering pursuant to the 2021 Form S-3, the Company issued Pre-Funded Warrants to purchase up to an aggregate of 3,557,273 shares of our common stock at an exercise price of \$0.001 per share. The Pre-Funded Warrants are immediately exercisable and can be exercised at any time after their original issuance until such Pre-Funded Warrants are exercised in full. See *Note 7 - Common Stock - Equity Capital Raises - 2024* for further details.

On December 9, 2024, in connection with a registered direct offering pursuant to the 2021 Form S-3, the Company issued Form A Warrants to purchase up to an aggregate of 2,857,389 shares of our common stock and Form B Warrants to purchase up to an aggregate of 1,428,693 shares of our common stock. Each Form A Warrant has an exercise price per share of \$0.5722 and each Form B Warrant has an exercise price per share of \$0.71525. Each Form A Warrant and each Form B Warrant is exercisable on or after December 9, 2024 through and until December 9, 2029. See *Note 7 - Common Stock - Equity Capital Raises - 2024* for further details.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-based Compensation(continued)

a) Warrants (continued)

2023

The Company issued warrants to purchase an aggregate of 448,500 shares of Company common stock to Freedom, at an exercise price of \$2.00 per share. See Note 7 – Common Stock – Equity Capital Raises – 2023 for further details.

The Company evaluated the warrants as either equity-classified or liability-classified instruments based on an assessment of the specific terms of the warrants and applicable authoritative guidance in ASC 480 and ASC 815-40. The Company determined the warrants issued in the Freedom offering failed the indexation guidance under ASC 815-40, specifically, the warrants provide for a Black-Scholes value calculation in the event of certain transactions ("Fundamental Transactions"), which includes a floor on volatility utilized in the value calculation at 100% or greater. The Company has determined that this provision introduces leverage to the holders of the warrants that could result in a value that would be greater than the settlement amount of a fixed-for-fixed option on the Company's own equity shares. Accordingly, pursuant to ASC 815-40, the Company has classified the fair value of the warrants as a liability upon issuance and marked to market each reporting period in the Company's consolidated statement of operations until their exercise or expiration.

Warrant Expiration

2024

During the year ended December 31, 2024, no warrants expired unexercised.

2023

Effective February 26, 2023, a warrant to purchase 125,000 shares of common stock expired unexercised.

Outstanding Warrants

Below is a table summarizing the warrants issued and outstanding as of December 31, 2024. The warrants outstanding have a weighted average price of \$0.608 per share and an aggregate weighted average remaining contractual life of 2.71 years. The warrants exercisable have a weighted average price of \$0.608 per share.

| | | | Weighted Average | |
|-------------------|---------------|---------------------|-----------------------|------------------------|
| | | | Remaining Contractual | Proceeds to Company if |
| Outstanding # | Exercisable # | Exercise Price (\$) | Life (Years) | Exercised (\$) |
| 3,557,273 | 3,557,273 | 0.001 | 0.00 | 3,557 |
| 2,857,389 | 2,857,389 | 0.5722 | 4.94 | 1,634,998 |
| 1,428,693 | 1,428,693 | 0.7153 | 4.94 | 1,021,873 |
| 448,500 | 448,500 | 2.000 | 3.45 | 897,000 |
| 54,000 | 27,000 | 3.050 | 3.76 | 164,700 |
| 50,000 | 50,000 | 3.450 | 1.16 | 172,500 |
| 125,000 | 125,000 | 3.950 | 2.00 | 493,750 |
| 185,000 | 185,000 | 4.900 | 2.09 | 906,500 |
| 8,705,855 | 8,678,855 | | | 5,294,878 |

See also Warrants - Series A and Series B Common Stock Warrants below regarding additional warrants not included in the table above.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-based Compensation(continued)

a) Warrants (continued)

Stock-based compensation expense related to warrants of \$5,238 and \$30,574 was recorded for the years ended December 31, 2024, and December 31, 2023, respectively. Total remaining unrecognized compensation cost related to non-vested warrants is approximately \$nil and is expected to be recognized over a period of nil years. As of December 31, 2024, the total intrinsic value of warrants was \$nil.

a) (ii) Warrants - Series A and Series B Common Stock Warrants

Warrants Granted

2024

On August 12, 2024, in connection with a registered direct offering pursuant to the 2021 Form S-3, the Company issued Series A Warrants to purchase up to an aggregate of 12,727,273 shares of our common stock at an exercise price of \$0.57 per share. In addition, the Company issued warrants to designees of the placement agent to purchase an aggregate of 381,818 shares of Company common stock on substantially the same terms as the Series B Warrants at an exercise price of \$0.6875 per share. The Series A Warrants are exercisable on or after February 12, 2025 (the "Initial Exercise Date") and will be exercisable until the earlier of (a) the two (2) year anniversary of the Initial Exercise Date and (b) the date that is 60 days following the Company's public announcement on a Current Report on Form 8-K of the occurrence of the Company entering into one or more agreements relating to the development and commercialization of a product, technology, or process in the human space, provided at least one such agreement covers a territory that includes all or a part of the European Union, the United States, the United Kingdom, Japan, or China, and which, during the term of all such agreements and pursuant to the terms thereof, collectively such agreements include aggregate (i) potential milestone payments to the Company of at least \$10.0 million, or (ii) potential milestone payments to the Company of at least \$5.0 million and potential total payments of at least \$20.0 million. The Series B Warrants are exercisable on or after the Initial Exercise Date, and will be exercisable until the earlier of (a) the five (5) year anniversary of the Initial Exercise Date and (b) the date that is six (6) months following the Company's public announcement on a Current Report on Form 8-K of the occurrence of the Company or a third party receiving the first FDA approval of a product, technology, or process in the human space, or the FDA's acceptance of data from invitro trials or in vivo animal trials, shall not constitute "FDA approval" for

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-based Compensation(continued)

a) (ii) Warrants - Series A and Series B Common Stock Warrants (continued)

The following table summarizes the changes in Series A and Series B Warrants of the Company outstanding during the year ended December 31, 2024 and December 31, 2023:

| | | Weighted |
|----------------------------------|---------------|----------|
| | | Average |
| | | Exercise |
| | Warrants # | Price \$ |
| Outstanding at December 31, 2022 | - | |
| Granted | - | - |
| Exercised | - | - |
| Expired | _ | |
| Outstanding at December 31, 2023 | - | _ |
| Granted | 25,836,364 | 0.570 |
| Exercised | - | - |
| Expired | - | - |
| Outstanding at December 31, 2024 | 25,836,364 | 0.570 |
| | | |
| Exercisable at December 31, 2024 | . | |
| | | |

See also Warrants -Common Stock Warrants above regarding additional warrants not included in the table above.

Below is a table summarizing the Series A and Series B common stock warrants issued and outstanding as of December 31, 2024, which have a maximum aggregate weighted average remaining contractual life of 3.62 years (assuming that certain Company milestones set forth in the warrants are not achieved). The proceeds if exercised as reflected in the table below assume the warrants are exercised for cash.

| | | | Exercise Price | Weighted Average Remaining Contractual | Proceeds to Company if |
|-----------------------------------|---------------|---------------|----------------|---|---------------------------|
| Description | Outstanding # | Exercisable # | (\$) | Life (Years) | Exercised (\$) |
| Investor Series A Warrants | 12,727,273 | 0.000 | 0.570 | 2.11 | 7,254,546 |
| Investor Series B Warrants | 12,727,273 | 0.000 | 0.570 | 5.11 | 7,254,546 |
| Placement Agent Series B Warrants | 381,818 | 0.000 | 0.688 | 4.61 | 262,500 |
| | 25,836,364 | | | | 14,771,592 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-based Compensation(continued)

b) Options

The Company currently has options outstanding under both its 2011 Plan (for option issuances prior to 2016,) and its 2015 Plan (for option issuances commencing in 2016). Effective as of January 1, 2016, no additional awards were or may be made under the 2011 Plan. The Company also has the 2024 Plan (as defined below), however, as of December 31, 2024 no options had been awarded under such Plan.

The 2015 Plan was adopted by the Board of Directors on August 18, 2015 and approved by the stockholders at an annual meeting held on October 30, 2015. On August 5, 2016, the Board of Directors adopted an amendment to the 2015 Plan to increase the number of shares of common stock available for issuance under such Plan by 750,000 shares to an aggregate maximum of 1,750,000 shares, which amendment was approved by the stockholders at an annual meeting held on October 7, 2016. On June 13, 2017, the Board of Directors adopted a subsequent amendment to the 2015 Plan to increase the number of shares of common stock available for issuance under such Plan by 750,000 shares to an aggregate maximum of 2,500,000 shares, which amendment was approved by the stockholders at an annual meeting held on September 8, 2017. On June 15, 2018, the Board of Directors adopted a subsequent amendment to the 2015 Plan to increase the number of shares of common stock available for issuance under such Plan by 750,000 shares to an aggregate maximum of 3,250,000 shares, which amendment was approved by the stockholders at an annual meeting held on September 7, 2018.

On March 27, 2019, the Board of Directors adopted a subsequent amendment to the 2015 Plan to increase the number of shares of common stock available for issuance under such Plan by 1,000,000 shares to an aggregate maximum of 4,250,000 shares, which amendment was approved by the stockholders at an annual meeting held on June 14, 2019. On March 31, 2021, the Board of Directors adopted a subsequent amendment to the 2015 Plan to increase the number of shares of common stock available for issuance under such Plan by 1,750,000 shares to an aggregate maximum of 6,000,000 shares, which amendment was approved by the stockholders at an annual meeting held on June 17, 2021.

On April 4, 2022, the Board of Directors adopted a subsequent amendment to the 2015 Plan to increase the number of shares of common stock available for issuance under such plan by 1,750,000 shares to an aggregate maximum of 7,750,000 shares, which amendment was approved by the stockholders at an annual meeting held on June 13, 2022.

On April 17, 2023, the Board of Directors adopted a subsequent amendment to the 2015 Plan to increase the number of shares of common stock available for issuance under such plan by 1,950,000 shares to an aggregate maximum of 9,700,000 shares, which amendment was approved by the stockholders at an annual meeting held on June 28, 2023.

The 2015 Plan permits the grant of incentive stock options, non-statutory stock options, restricted stock awards, stock bonus awards, stock appreciation rights, restricted stock units and performance awards. The primary purpose of the 2015 Plan is to enhance the Company's ability to attract and retain the services of qualified employees, officers, directors, consultants and other service providers upon whose judgment, initiative and efforts the successful conduct and development of the Company's business largely depends, and to provide additional incentives to such persons or entities to devote their utmost effort and skill to the advancement and betterment of the Company, by providing them an opportunity to participate in the ownership of the Company that is tied to the Company's performance, thereby giving them an interest in the success and increased value of the Company. The 2015 Plan is administered by the Compensation Committee comprised solely of members of the Board of Directors or by the Board of Directors as a whole.

At the Annual Meeting on July 2, 2024, the stockholders approved and adopted the Company's 2024 Stock Incentive Plan (the "2024 Plan") which authorizes up to 7,500,000 shares of common stock for issuance pursuant to awards granted under the 2024 Plan. The 2024 Plan had previously been approved by the Board of Directors of the Company on April 24, 2024. As of December 31, 2024, no options had been awarded under such Plan, however, RSUs for 1,000,000 shares had been awarded under the 2024 Plan. See *Note 8- Stock Compensation – Restricted Stock Units*.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-based Compensation(continued)

b) Options (continued)

The following table summarizes the changes in options outstanding of the Company during the years ended December 31, 2024 and December 31, 2023.

| | | Weighted |
|----------------------------------|-----------|----------|
| | | Average |
| | | Exercise |
| | Options # | Price \$ |
| Outstanding at December 31, 2022 | 4,985,105 | 3.87 |
| Forfeited | (285,536) | 3.89 |
| Outstanding at December 31, 2023 | 4,699,569 | 3.87 |
| Forfeited | (61,821) | 3.40 |
| Outstanding at December 31, 2024 | 4,637,748 | 3.88 |
| | | |
| Exercisable at December 31, 2024 | 4,637,748 | 3.88 |

Options Granted

2023 and 2024

During the years ended December 31, 2024 and December 31, 2023, no options were granted.

Options Forfeited

2024

During the year ended December 31, 2024, the following table summarizes the options were forfeited.

| Equity Incentive Plan | Options (#) | Grant Date | Options Forfeited (#) | Grant Price (\$) | Forfeiture Date |
|------------------------------|-------------|-------------|--------------------------|------------------|-----------------|
| 2015 | 12,500 | Sep 7, 2021 | 12,500 | 3.40 | Nov 4, 2024 |
| 2015 | 12,500 | Sep 7, 2021 | 12,500 | 3.40 | Nov 4, 2024 |
| 2015 | 18,410 | Mar 8, 2021 | 18,410 | 3.40 | Apr 16, 2024 |
| 2015 | 18,411 | Mar 8, 2021 | 18,411 | 3.40 | Apr 16, 2024 |
| | 61,821 | | 61,821 | | |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-based Compensation(continued)

b) Options (continued)

2023

During the year ended December 31, 2023, the following table summarizes the options were forfeited.

| Equity Incentive Plan | Options (#) | Grant Date | Options Forfeited (#) | Grant Price (\$) | Forfeiture Date |
|------------------------------|-------------|--------------|-----------------------|------------------|-----------------|
| 2015 | 25,000 | Apr 15, 2016 | 25,000 | 4.00 | Feb 18, 2023 |
| 2015 | 55,000 | Apr 13, 2020 | 55,000 | 3.60 | Feb 18, 2023 |
| 2015 | 50,000 | Mar 30, 2017 | 50,000 | 5.00 | Feb 18, 2023 |
| 2015 | 50,000 | Feb 11, 2019 | 50,000 | 3.25 | Feb 18, 2023 |
| 2015 | 50,000 | Jan 23, 2018 | 50,000 | 4.00 | Feb 18, 2023 |
| 2015 | 32,383 | Aug 3, 2021 | 32,383 | 3.40 | Feb 18, 2023 |
| 2011 | 5,267 | Mar 20, 2013 | 5,267 | 4.35 | Mar 20, 2023 |
| 2011 | 1,100 | Mar 20, 2013 | 1,100 | 4.35 | Mar 20, 2023 |
| 2015 | 4,317 | Aug 3, 2021 | 4,317 | 3.40 | Jun 28, 2023 |
| 2011 | 550 | Sep 2, 2013 | 550 | 3.35 | Sep 2, 2023 |
| 2011 | 550 | Sep 2, 2013 | 550 | 4.35 | Sep 2, 2023 |
| 2011 | 550 | Sep 2, 2013 | 550 | 4.35 | Sep 2, 2023 |
| 2011 | 2,167 | Sep 2, 2013 | 2,167 | 3.35 | Sep 2, 2023 |
| 2011 | 2,167 | Sep 2, 2013 | 2,167 | 4.35 | Sep 2, 2023 |
| 2011 | 2,167 | Sep 2, 2013 | 2,167 | 4.35 | Sep 2, 2023 |
| 2015 | 4,318 | Aug 3, 2021 | 4,318 | 3.40 | Sep 28, 2023 |
| | 285,536 | | 285,536 | | |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-based Compensation(continued)

b) Options (continued)

Below is a table summarizing the options issued and outstanding as of December 31, 2024, all of which were issued pursuant to the 2011 Plan (for option issuances prior to 2016) or the 2015 Plan (for option issuances commencing in 2016) and which have a weighted average exercise price of \$ 3.88 per share and an aggregate weighted average remaining contractual life of 3.19 years. As of December 31, 2024, an aggregate of 9,700,000 shares of common stock were authorized for issuance under the 2015 Plan, of which 182,252 shares of common stock remained available for future issuance thereunder.

| | | | Weighted Average | |
|---------------|---------------|---------------------|-----------------------|------------------------|
| | | | Remaining Contractual | Proceeds to Company if |
| Outstanding # | Exercisable # | Exercise Price (\$) | Life (Years) | Exercised \$ |
| 585,000 | 585,000 | 3.25 | 0.11 | 1,901,250 |
| 919,748 | 919,748 | 3.40 | 6.59 | 3,127,143 |
| 740,000 | 740,000 | 3.60 | 5.35 | 2,664,000 |
| 1,607,837 | 1,607,837 | 4.00 | 1.73 | 6,431,348 |
| 89,163 | 89,163 | 4.38 | 3.06 | 390,534 |
| 50,000 | 50,000 | 4.80 | 2.00 | 240,000 |
| 646,000 | 646,000 | 5.00 | 2.24 | 3,230,000 |
| | | | | |
| 4,637,748 | 4,637,748 | | | 17,984,275 |

Stock-based compensation expense related to stock options of \$0 and \$287,363 was recorded for the year ended December 31, 2024 and December 31, 2023 respectively. Total remaining unrecognized compensation cost related to non-vested stock options is approximately \$nil and is expected to be recognized over a period of nil years. As of December 31, 2024, the total intrinsic value of stock options was \$nil.

As of December 31, 2024, an aggregate of 182,252 shares of common stock remained available for future issuance under the 2015 Plan.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-Based Compensation(continued)

c) Restricted Stock Units (RSUs)

2015 Plan

Below is a table summarizing the RSUs issued and outstanding as of December 31, 2024, all of which were issued pursuant to the 2015 Plan.

| | | Weighted Average Exercise |
|----------------------------------|-----------|---------------------------------|
| | RSUs # | Price \$ |
| Outstanding at December 31, 2022 | 2,262,908 | 2.05 |
| Granted | 2,317,882 | 0.79 |
| Vested | (836,828) | 2.35 |
| Forfeited | (109,010) | 1.77 |
| Outstanding at December 31, 2023 | 3,634,952 | 1.01 |
| Granted | 1,457,910 | 0.68 |
| Vested | (924,536) | 1.41 |
| Forfeited | (776,010) | 0.83 |
| Outstanding at December 31, 2024 | 3,392,316 | 0.80 |

RSUs Granted

2024

Below is a table summarizing the RSUs granted during the year ended December 31, 2024, all of which were issued pursuant to the 2015 Plan. These RSUs vest equally over periods stated on the dates noted, subject to continued service, and will result in the compensation expense stated.

| Note | Equity Incentive Plan | RSUs # | Grant Date | Vesting Period | First Vesting Date | Second Vesting Date | Third Vesting Date | RSU Expense \$ |
|------|--------------------------|-----------|-----------------|-------------------|-----------------------|------------------------|-----------------------|----------------|
| | 2015 | 14,000 | Feb 22, 2024 | 36 Months | Feb 22, 2025 | Feb 21, 2026 | Feb 21, 2027 | 13,589 |
| | 2015 | 115,000 | May 23, 2024 | 36 Months | May 23, 2025 | May 23, 2026 | May 23, 2027 | 85,389 |
| | 2015 | 297,340 | Jun 1, 2024 | 11 Months | May 1, 2025 | N/A | N/A | 209,832 |
| | 2015 | 38,198 | Jul 1, 2024 | 11 Months | Jun 1, 2025 | N/A | N/A | 23,645 |
| | 2015 | 21,583 | Jul 8, 2024 | 6 Months | Jan 1, 2025 | N/A | N/A | 13,209 |
| | 2015 | 343,192 | Sep 1, 2024 | 9 Months | Jun 1, 2025 | N/A | N/A | 247,098 |
| | 2015 | 15,000 | Sep 30, 2024 | 36 Months | Sep 30, 2025 | Sep 30, 2026 | Sep 30, 2027 | 9,015 |
| | 2015 | 33,503 | Oct 1, 2024 | 9 Months | Jul 1, 2025 | N/A | N/A | 21,308 |
| | 2015 | 400,000 | Nov 6, 2024 | 36 Months | Nov 6, 2025 | Nov 6, 2026 | Nov 6, 2027 | 240,799 |
| | 2015 | 180,094 | Dec 1, 2024 | 6 Months | Jun 1, 2025 | N/A | N/A | 125,146 |
| | | 1,457,910 | | | | | | 989,030 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-Based Compensation(continued)

c) Restricted Stock Units (RSUs) (continued)

2023

Below is a table summarizing the RSUs granted during the year ended December 31, 2023, all of which were issued pursuant to the 2015 Plan. These RSUs vest equally over periods stated on the dates noted, subject to continued service, and will result in the compensation expense stated. The exception to this is specified in note (i) which is described in detail below.

| Note | Equity Incentive Plan | RSUs # | Grant Date | Vesting Period | First Vesting Date | Second Vesting Date | Third Vesting Date | RSU Expense \$ |
|------|--------------------------|-----------|-----------------|-----------------|--------------------|------------------------|--------------------|----------------|
| Note | <u> Flaii</u> | KSUS# | | vesting reflou | First vesting Date | Date | Date | KSU Expense s |
| | 2015 | 57,000 | Mar 27, 2023 | 36 Months | Mar 27, 2024 | Mar 27, 2025 | Mar 27, 2026 | 98,040 |
| | 2015 | 50,000 | Mar 27, 2023 | 24 Months | Mar 27, 2024 | Mar 27, 2025 | N/A | 86,000 |
| | 2015 | 5,325 | Mar 27, 2023 | 12 Months | Mar 27, 2024 | Mar 27, 2025 | N/A | 9,159 |
| | 2015 | 47,000 | Jun 15, 2023 | 36 Months | Jun 15, 2024 | Jun 15, 2025 | Jun 15, 2026 | 74,260 |
| | 2015 | 8,392 | Jun 15, 2023 | 12 Months | Jun 15, 2024 | N/A | N/A | 13,260 |
| | 2015 | 43,165 | Jul 13, 2023 | 6 Months | Jul 13, 2024 | Jan 13, 2024 | N/A | 56,978 |
| | 2015 | 14,000 | Jul 13, 2023 | 36 Months | Jul 13, 2024 | Jul 13, 2025 | Jul 13, 2026 | 18,479 |
| | 2015 | 34,000 | Sep 11, 2023 | 36 Months | Sep 11, 2024 | Sep 11, 2025 | Sep 11, 2026 | 44,540 |
| | 2015 | 1,569,000 | Sep 28, 2023 | 36 Months | Sep 28, 2024 | Sep 28, 2025 | Sep 28, 2026 | 1,098,300 |
| (i) | 2015 | 450,000 | Oct 19, 2023 | Up to 42 Months | Variable | Variable | Variable | 306,000 |
| | 2015 | 40,000 | Dec 11, 2023 | 36 Months | Dec 11, 2024 | Dec 11, 2025 | Dec 11, 2026 | 23,200 |
| | | 2,317,882 | | | | | | 1,828,216 |

⁽i) These RSUs were granted by the Compensation Committee of the Board of Directors in September 2023, with an effective date of October 19, 2023 and vest upon the share price closing above \$5.00 per share for a minimum of thirty consecutive trading days within a period of three years from the date of grant, with further time-based vesting in a single installment six months after the timely achievement of the target, if at all, and subject to continued service. The estimated fair value of the RSUs that include a market vesting condition will be measured on the grant date using a Monte Carlo Simulation of a Geometric Brownian Motion stock path model and incorporating the probability of vesting occurring. The estimated fair value of these awards will be recognized over the derived service period (as determined by the valuation model), with such recognition occurring regardless of whether the market condition is met.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-Based Compensation (continued)

c) Restricted Stock Units (RSUs) (continued)

RSUs Vested

Below is a table summarizing the RSUs vested during the year ended December 31, 2024, all of which were issued pursuant to the 2015 Plan.

| | | | | Shares Withheld for |
|-----------------------|---------|--------------|-----------------|------------------------|
| Equity Incentive Plan | RSUs # | Vesting Date | Shares Issued # | Taxes # |
| 2015 | 21,582 | Feb 8, 2024 | 21,582 | |
| 2015 | 9,000 | Mar 1, 2024 | 6,057 | 2,943 |
| 2015 | 44,217 | Mar 27, 2024 | 40,530 | 3,687 |
| 2015 | 51,000 | Apr 4, 2024 | 32,337 | 18,663 |
| 2015 | 50,000 | May 1, 2024 | 34,496 | 15,504 |
| 2015 | 11,500 | Jun 1, 2024 | 6,670 | 4,830 |
| 2015 | 14,962 | Jun 15, 2024 | 11,684 | 3,278 |
| 2015 | 4,667 | Jul 13, 2024 | 3,165 | 1,502 |
| 2015 | 29,000 | Aug 15, 2024 | 21,291 | 7,709 |
| 2015 | 2,000 | Sep 11, 2024 | 2,000 | - |
| 2015 | 2,500 | Sep 21, 2024 | 2,500 | - |
| 2015 | 332,775 | Sep 28, 2024 | 265,300 | 67,475 |
| 2015 | 337,666 | Oct 04, 2024 | 272,242 | 65,424 |
| 2015 | 333 | Nov 29, 2024 | 333 | - |
| 2015 | 13,334 | Dec 11, 2024 | 10,208 | 3,126 |
| | 924,536 | | 730,395 | 194,141 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 -Stock-Based Compensation(continued)

c) Restricted Stock Units (RSUs) (continued)

Below is a table summarizing the RSUs vested during the year ended December 31, 2023, all of which were issued pursuant to the 2015 Plan.

| | | | | Shares Withheld for |
|-----------------------|---------|--------------|-----------------|------------------------|
| Equity Incentive Plan | RSUs # | Vesting Date | Shares Issued # | Taxes # |
| 2015 | 4,000 | Feb 8, 2023 | 2,369 | 1,631 |
| 2015 | 15,000 | Mar 1, 2023 | 9,609 | 5,391 |
| 2015 | 15,000 | Mar 25, 2023 | 15,000 | - |
| 2015 | 2,500 | Apr 4, 2023 | 1,759 | 741 |
| 2015 | 13,500 | Apr 4, 2023 | 7,995 | 5,505 |
| 2015 | 35,000 | Apr 4, 2023 | 22,610 | 12,390 |
| 2015 | 50,000 | May 1, 2023 | 35,707 | 14,293 |
| 2015 | 4,000 | Jun 1, 2023 | 2,270 | 1,730 |
| 2015 | 7,500 | Jun 1, 2023 | 4,257 | 3,243 |
| 2015 | 208,809 | Aug 3, 2023 | 167,809 | 41,000 |
| 2015 | 34,102 | Aug 15, 2023 | 23,764 | 10,338 |
| 2015 | 12,000 | Sep 7, 2023 | 7,046 | 4,954 |
| 2015 | 12,500 | Sep 21, 2023 | 7,434 | 5,066 |
| 2015 | 357,346 | Oct 4, 2023 | 298,738 | 58,608 |
| 2015 | 19,904 | Oct 4, 2023 | 6,883 | 13,021 |
| 2015 | 21,583 | Oct 13, 2023 | 21,583 | - |
| 2015 | 21,750 | Nov 1, 2023 | 21,750 | - |
| 2015 | 334 | Nov 29, 2023 | 334 | - |
| 2015 | 2,000 | Dec 15, 2023 | 1,185 | 815 |
| | 836,828 | | 658,102 | 178,726 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-Based Compensation(continued)

c) Restricted Stock Units (RSUs) (continued)

RSUs Cancelled

Below is a table summarizing the RSUs cancelled during the year ended December 31, 2024, all of which were originally issued pursuant to the 2015 Plan.

| | | | RSUs Forfeited |
|-----------------------|---------|-----------------|-----------------------|
| Equity Incentive Plan | RSUs # | Forfeiture Date | # |
| 2015 | 24,000 | Jan 16, 2024 | 24,000 |
| 2015 | 12,000 | Jan 16, 2024 | 12,000 |
| 2015 | 2,000 | Feb 9, 2024 | 2,000 |
| 2015 | 1,775 | Mar 25, 2024 | 1,775 |
| 2015 | 2,098 | Mar 25, 2024 | 2,098 |
| 2015 | 5,333 | May 17, 2024 | 5,333 |
| 2015 | 2,000 | May 17, 2024 | 2,000 |
| 2015 | 10,000 | May 17, 2024 | 10,000 |
| 2015 | 28,000 | May 31, 2024 | 28,000 |
| 2015 | 6,666 | Jul 12, 2024 | 6,666 |
| 2015 | 13,000 | Jul 12, 2024 | 13,000 |
| 2015 | 5,666 | Aug 4, 2024 | 5,666 |
| 2015 | 10,000 | Aug 4, 2024 | 10,000 |
| 2015 | 25,000 | Aug 4, 2024 | 25,000 |
| 2015 | 5,667 | Aug 4, 2024 | 5,667 |
| 2015 | 486,525 | Aug 15, 2024 | 486,525 |
| 2015 | 16,000 | Aug 30, 2024 | 16,000 |
| 2015 | 12,150 | Aug 30, 2024 | 12,150 |
| 2015 | 9,333 | Aug 30, 2024 | 9,333 |
| 2015 | 25,200 | Nov 22, 2024 | 25,200 |
| 2015 | 13,666 | Nov 22, 2024 | 13,666 |
| 2015 | 2,333 | Dec 11, 2024 | 2,333 |
| 2015 | 4,950 | Dec 11, 2024 | 4,950 |
| 2015 | 3,150 | Dec 20, 2024 | 3,150 |
| 2015 | 1,666 | Dec 20, 2024 | 1,666 |
| 2015 | 13,500 | Dec 20, 2024 | 13,500 |
| 2015 | 7,666 | Dec 20, 2024 | 7,666 |
| 2015 | 26,666 | Dec 20, 2024 | 26,666 |
| | 776,010 | | 776,010 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-Based Compensation(continued)

c) Restricted Stock Units (RSUs) (continued)

Below is a table summarizing the RSUs cancelled during the year ended December 31, 2023, all of which were originally issued pursuant to the 2015 Plan.

| | | | RSUs Forfeited |
|-----------------------|---------|-----------------|-----------------------|
| Equity Incentive Plan | RSUs # | Forfeiture Date | # |
| 2015 | 23,000 | Apr 30, 2023 | 23,000 |
| 2015 | 21,000 | May 5, 2023 | 21,000 |
| 2015 | 2,000 | Jun 15, 2023 | 2,000 |
| 2015 | 17,343 | Jun 28, 2023 | 17,343 |
| 2015 | 14,000 | Jul 28, 2023 | 14,000 |
| 2015 | 10,000 | Sep 22, 2023 | 10,000 |
| 2015 | 2,667 | Oct 4, 2024 | 2,667 |
| 2015 | 19,000 | Oct 20, 2024 | 19,000 |
| | 109,010 | | 109,010 |
| | | | |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-Based Compensation (continued)

c) Restricted Stock Units (RSUs) (continued)

Below is a table summarizing the RSUs issued and outstanding as of December 31, 2024 all of which were issued under the 2015 Plan, and of which the last to vest have a remaining contractual life of 2.85 years.

| | | Weighted Average Remaining |
|---------------|---|----------------------------|
| Outstanding # | Weighted Average Grant date Fair Value \$ | Contractual Life (Years) |
| 15,000 | \$ 0.601 | 1.75 |
| 400,000 | \$ 0.602 | 1.85 |
| 21,583 | \$ 0.612 | 0.00 |
| 38,198 | \$ 0.619 | 0.42 |
| 33,503 | \$ 0.636 | 0.50 |
| 450,000 | \$ 0.675 | 2.30 |
| 450,000 | \$ 0.690 | 1.26 |
| 180,094 | \$ 0.695 | 0.42 |
| 618,750 | \$ 0.700 | 0.83 |
| 297,340 | \$ 0.706 | 0.33 |
| 343,192 | \$ 0.720 | 0.42 |
| 115,000 | \$ 0.743 | 1.39 |
| 14,000 | \$ 0.971 | 1.15 |
| 4,000 | \$ 1.310 | 0.80 |
| 9,333 | \$ 1.320 | 0.69 |
| 312,325 | \$ 1.460 | 0.36 |
| 17,332 | \$ 1.580 | 0.48 |
| 38,333 | \$ 1.720 | 0.66 |
| 333 | \$ 2.150 | 0.46 |
| 34,000 | \$ 2.950 | 0.06 |
| 3,392,316 | | |

Stock-based compensation expense related to RSUs of \$1,263,304 and \$1,971,607 was recorded in the years ended December 31, 2024, and December 31, 2023, respectively. Total remaining unrecognized compensation cost related to non-vested RSUs is \$1,288,827.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 8 - Stock-Based Compensation (continued)

c) Restricted Stock Units (RSUs) (continued)

2024 Plan

Below is a table summarizing the RSUs issued and outstanding as of December 31, 2024, all of which were issued pursuant to the 2024 Plan.

| | RSUs # | Weighted Average Exercise Price \$ |
|----------------------------------|-----------|------------------------------------|
| Outstanding at December 31, 2022 | - | - |
| Granted | - | - |
| Vested | - | - |
| Forfeited | | |
| Outstanding at December 31, 2023 | _ | - |
| Granted | 500,000 | 0.271 |
| Granted | 500,000 | 0.144 |
| Vested | - | - |
| Forfeited | - | - |
| Outstanding at December 31, 2024 | 1,000,000 | 0.207 |

2024

Below is a table summarizing the RSUs granted during the year ended December 31, 2024, all of which were issued pursuant to the 2024 Plan. These RSUs vest, subject to continued service and will result in the compensation expense stated in the table with the following details specified in notes (i) and (ii) described in detail below.

| Note | Equity Incentive Plan | RSUs # | Grant Date | Vesting Period | First Vesting Date | Second Vesting Date | Third Vesting Date | RSU Expense \$ |
|------|--------------------------|-----------|----------------|--------------------|-----------------------|------------------------|-----------------------|----------------|
| | 1 1411 | KSUS# | | v esting 1 eriou | Date | Date | Date | KSU Expense 5 |
| (i) | 2024 | 500,000 | Nov 6, 2024 | Up to 42 Months | Variable | Variable | Variable | 135,280 |
| (ii) | 2024 | 500,000 | Nov 6, 2024 | Up to 42 Months | Variable | Variable | Variable | 72,124 |
| | | 1,000,000 | | | | | | |

- (I) These RSUs vest upon the share price closing above \$2.50 per share for a minimum of thirty consecutive trading days within a period of three and a half years from the date of grant, with further time-based vesting in a single installment six months after the timely achievement of the target, if at all, and subject to continued service. The estimated fair value of the RSUs that include a market vesting condition will be measured on the grant date using a Monte Carlo Simulation of a Geometric Brownian Motion stock path model and incorporating the probability of vesting occurring. The estimated fair value of these awards will be recognized over the derived service period (as determined by the valuation model), with such recognition occurring regardless of whether the market condition is met.
- (ii) These RSUs vest upon the share price closing above \$5.00 per share for a minimum of thirty consecutive trading days within a period of three and a half years from the date of grant, with further time-based vesting in a single installment six months after the timely achievement of the target, if at all, and subject to continued service. The estimated fair value of the RSUs that include a market vesting condition will be measured on the grant date using a Monte Carlo Simulation of a Geometric Brownian Motion stock path model and incorporating the probability of vesting occurring. The estimated fair value of these awards will be recognized over the derived service period (as determined by the valuation model), with such recognition occurring regardless of whether the market condition is met.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 9 - Income Taxes

The Company has estimated net operating losses for the years ended December 31, 2024 and 2023 of \$7.5 million and \$33.1 million, respectively, available to offset taxable income in future years.

The significant components of deferred income taxes and assets as of December 31, 2024 and December 31, 2023 are as follows:

| Net Deferred Tax Liability | December 31, 2024 \$ | December 31, 2023 \$ |
|---|----------------------------|----------------------------|
| Excess of tax over book depreciation and amortization | (68,649) | (71,391) |
| ROU Asset | (112,615) | (108,326) |
| Lease Liability | 119,084 | 113,834 |
| Accrued expenses | 7,842 | 8,933 |
| Capitalized research expenses | 3,285,031 | 2,723,982 |
| Stock-based compensation | 313,788 | 322,177 |
| Net Operating Losses carry-forward | 37,535,523 | 33,092,721 |
| Research and development tax credits | 824,069 | 1,033,416 |
| Gross deferred tax assets | 41,904,073 | 37,115,346 |
| Valuation allowance | (41,904,073) | (37,115,346) |
| Net deferred tax asset | | |
| Change in Valuation Allowance | (4,788,727) | |
| Summary Rate Reconciliation | December 31, 2024 % | December 31, 2023 |
| Federal statutory rate | 21.0 | 21.0 |
| Permanent Differences | (0.6) | (3.3) |
| Stock based compensation | (0.5) | (0.8) |
| Federal Research & Development Credits | 0.3 | 0.7 |
| Foreign taxes | (0.4) | (0.2) |
| Federal Deferred Rate Decrease | - | · - |
| Change in Valuation Allowance | (19.8) | (17.5) |
| Total | | (0.1) |
| Disclosure Amounts | December 31, 2024 | |
| Net Operating Losses - United States | 50,144,452 | |
| Net Operating Losses - Foreign | 114,230,276 | |
| Credit Carryforward - United States | - | |
| Credit Carryforward - Foreign | 823,069 | |
| Increase in Valuation Allowance | 4,788,727 | |
| | | |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 10 - Commitments and Contingencies

a) Finance Lease Obligations

In 2016, the Company entered into a real estate capital lease with ING Asset Finance Belgium S.A. ("ING") to purchase a property located in Belgium for ϵ 1.12 million, maturing May 2031, with implicit interest of 2.62%. As of December 31, 2024, the balance payable was \$75,075.

The following is a schedule showing the future minimum lease payments under finance leases by years and the present value of the minimum payments as of December 31, 2024:

| For the Year Ending December 31, 2024 | Amount |
|---------------------------------------|----------|
| | \$ |
| 2025 | 55,672 |
| 2026 | 55,672 |
| 2027 | 55,672 |
| 2028 | 55,672 |
| 2029 | 55,671 |
| Greater than 5 years | 132,204 |
| Total | 410,563 |
| Less: Amount representing interest | (35,488) |
| Total Finance Lease Liabilities | 375,075 |

b) Operating Lease Right-of-Use Liabilities

Operating leases as of December 31, 2024, and December 31, 2023, consisted of the following:

| | December 31, 2024 | December 31, 2023 |
|--|----------------------|----------------------|
| | \$ | \$ |
| Operating right-of-use assets | 599,816 | 549,504 |
| | | |
| Operating lease liabilities, current portion | 221,755 | 199,323 |
| Operating lease liabilities, long term | 410,686 | 378,054 |
| Total operating lease liabilities | 632,441 | 577,377 |
| | | |
| Weighted average remaining lease (months) | 48 | 25 |
| Weighted average discount rate | 3.70% | 2.38% |

During the year ended December 31, 2024, cash paid for amounts included for the measurement of lease liabilities was \$50,048 and the Company recorded operating lease expense of \$247,390.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 10 - Commitments and Contingencies (continued)

b) Operating Lease Right-of-Use Liabilities (continued)

The following is a schedule showing the future minimum lease payments under operating leases by years and the present value of the minimum payments as of December 31, 2024.

| For the Year Ending December 31, 2024 | Amount |
|---------------------------------------|----------|
| | \$ |
| 2025 | 244,273 |
| 2026 | 229,108 |
| 2027 | 148,590 |
| 2028 | 54,343 |
| 2029 | <u></u> |
| Total | 676,314 |
| Less: imputed interest | (43,873) |
| Total Operating Lease Liabilities | 632,441 |
| | |

As of December 31, 2024, operating lease right-of-use assets and liabilities arising from operating leases were \$99,816 and \$632,441, respectively.

The Company's office space leases are short term, and the Company has elected under the short-term recognition exemption not to recognize them on the balance sheet. During the year ended December 31, 2024, \$49,988 was recognized in short-term lease costs associated with the office space leases in Singapore and Nevada. The annual payments remaining for such short-term office leases as of December 31, 2024, were as follows:

| For the Year Ending December 31, 2024 | Amount |
|---------------------------------------|----------|
| | <u> </u> |
| 2025 | 11,874 |
| Total Operating Lease Liabilities | 11,874 |

c) Grants Repayable

In 2010, the Company entered into an agreement with the Walloon Region government in Belgium for a colorectal cancer research grant for Θ ,048,020. Per the terms of the agreement, Θ 314,406 of the grant is to be repaid by installments over the period from June 30, 2014 to June 30, 2023. The Company has recorded the balance of \mathbb{C} 33,614 to other income in previous years as there is no obligation to repay this amount. In the event that the Company receives revenue from products or services as defined in the agreement, it is due to pay a 6% royalty on such revenue to the Walloon Region. The maximum amount payable to the Walloon Region, in respect of the aggregate of the amount repayable of Θ 314,406 and the 6% royalty on revenue, is twice the amount of funding received. As of December 31, 2024, the grant balance repayable was \mathbb{C} 5,876.

In 2018, the Company entered into an agreement with the Walloon Region government in Belgium for a colorectal cancer research grant for 605,000. Per the terms of the agreement, £181,500 of the grant is to be repaid by instalmentsover 12 years commencing in 2020. In the event that the Company receives revenue from products or services as defined in the agreement, it is due to pay a 3.53% royalty on such revenue to the Walloon Region. The maximum amount payable to the Walloon Region, in respect of the aggregate of the amount repayable of £181,500 and the 3.53% royalty on revenue, is equal to the amount of funding received. As of December 31, 2024, the grant balance repayable was \$84,114.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 10 - Commitments and Contingencies (continued)

c) Grants Repayable (continued)

In 2020, the Company entered into an agreement with the Walloon Region government in Belgium for a research grant for €495,000. Per the terms of the agreement, €148,500 of the grant is to be repaid by installments over 10 years commencing in 2023. In the event that the Company receives revenue from products or services as defined in the agreement, it is due to pay a 2.89% royalty on such revenue to the Walloon Region. The maximum amount payable to the Walloon Region, in respect of the aggregate of the amount repayable of €148,500 and the 2.89% royalty on revenue, is equal to the amount of funding received. As of December 31, 2024, the grant balance repayable was \$82,363.

In 2020, the Company entered into an agreement with the Walloon Region government in Belgium for a research grant for Θ 29,433. Per the terms of the agreement, Θ 278,830 of the grant is to be repaid by instalments over 15 years commencing in 2022. In the event that the Company receives revenue from products or services as defined in the agreement, it is due to pay a 4.34% royalty on such revenue to the Walloon Region. The maximum amount payable to the Walloon Region, in respect of the aggregate of the amount repayable of Θ 278,830 and the 4.34% royalty on revenue, is equal to the amount of funding received. As of December 31, 2024, the grant balance repayable was \$229,868.

As of December 31, 2024, the balance repayable was \$422,221 and the annual payments remaining were as follows:

| For the Year Ending December 31, 2024 | Amount |
|---------------------------------------|----------|
| | <u> </u> |
| 2025 | 60,978 |
| 2026 | 42,305 |
| 2027 | 46,968 |
| 2028 | 50,228 |
| 2029 | 51,629 |
| Greater than 5 years | 170,113 |
| Total Grants Repayable | 422,221 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 10 - Commitments and Contingencies (continued)

d) Long-Term Debt

In 2016, the Company entered into a 15-year loan agreement with ING for £270,000 with a fixed interest rate of 2.62%, maturing December 2031. As of December 31, 2024, the principal balance payable was \$145,654.

In 2017, the Company entered into a 7-year loan agreement with SOFINEX for up to €1 million with a fixed interest rate of 4.50%, maturing September 2024. As of December 31, 2024, €1 million has been drawn down under this agreement and the principal balance payable was \$51,753.

In 2020, the Company entered into a 10-year loan agreement with Namur Invest for a maximum of &30,000 with fixed interest rate of 4.00%, maturing March 2031. As of December 31, 2024, the amount that has been drawn down under this agreement was €556,828, representing a principal balance payable of \$576,345.

On November 23, 2021, the Company entered into a 3 ½ year loan agreement with SOFINEX for a maximum of £450,000 with fixed interest rate of 5.00%, maturing June 2025. As of December 31, 2024, the amount that has been drawn down under this agreement was £50,000, representing a principal balance payable of \$116,443.

In 2022, the Company entered into a 4-year loan agreement with Namur Invest for a maximum of €1,000,000 with fixed interest rate of 6.00%, maturing July 2026. As of December 31, 2024, the amount that has been drawn down under this agreement was €1,000,000, representing a principal balance payable of \$495,160.

In 2022, the Company entered into a 4-year loan agreement with Namur Invest for a maximum of €500,000 with fixed interest rate of 5.45%, maturing December 2027. As of December 31, 2024, the amount that has been drawn down under this agreement was €500,000, representing a principal balance payable of \$398,497.

In 2023, the Company entered into a 4-year loan agreement with Namur Invest for a maximum of €400,000 with fixed interest rate of 7.00%, maturing June 2027. As of December 31, 2024, €400,000 had been drawn down under this agreement and the principal balance payable was \$360,883.

In 2023, the Company entered into a 5-year loan agreement with Wallonie Entreprendre S.A. for a maximum of €2.5 million with fixed interest rate of 7.68%, maturing December 2028. As of December 31, 2024, €1,500,000 had been drawn down under this agreement and the principal balance payable was \$2,070,100.

On October 29, 2024, the Company entered into a 4-year loan agreement with Namur Invest for a maximum of €577,975 with fixed interest rate of 7.00%, maturing September 2028. As of December 31, 2024, €577,975 had been drawn down under this agreement and the principal balance payable was \$598,234.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 10 - Commitments and Contingencies (continued)

d) Long-Term Debt (continued)

As of December 31, 2024, the total balance for long-term debt payable was \$4,813,069 and the payments remaining were as follows:

| For the Year Ending December 31, 2024 | Amount |
|---------------------------------------|-------------|
| | <u> </u> |
| 2025 | 1,263,036 |
| 2026 | 978,784 |
| 2027 | 787,099 |
| 2028 | 2,523,491 |
| 2029 | 127,296 |
| Greater than 5 years | 176,311 |
| Total | 5,856,017 |
| Less: amount representing interest | (1,042,948) |
| Total Long-Term Debt | 4,813,069 |

e) Collaborative Agreement Obligations

As of December 31, 2024, the total amount to be paid, for future research and collaboration commitments was approximately \$1,120,518 and the annual payments remaining were as follows:

| | Total | |
|-------------------------------------|-----------|-----------|
| | Amount | |
| | Remaining | 2025 |
| | \$ | \$ |
| National University of Taiwan | 510,000 | 510,000 |
| MD Anderson Cancer Center | 277,092 | 277,092 |
| Guys and St Thomas | 162,609 | 162,609 |
| Xenetic Biosciences | 81,447 | 81,447 |
| University Medical Centre Amsterdam | 89,370 | 89,370 |
| Total Collaborative Obligations | 1,120,518 | 1,120,518 |

In 2018, the Company entered into a research collaboration agreement with the University of Taiwan for a 3-year period for a cost to the Company of up to Σ .55 million payable over such period. As of December 31, 2024, \$510,000 is still to be paid by the Company under this agreement.

In 2022, the Company entered into a sponsored research agreement with The University of Texas MD Anderson Cancer Center to evaluate the role of neutrophil extracellular traps ("NETs") in cancer patients with sepsis for a cost to the Company of \$449,406. As of December 31, 2024, \$277,092 is still to be paid by the Company under this agreement.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 10 - Commitments and Contingencies (continued)

e) Collaborative Agreement Obligations (continued)

In August 2023, the Company entered into a project research agreement with Guy's and St Thomas' NHS Foundation Trust to evaluate the practical clinical utility of the Nu. Q[®] H3.1 nucleosome levels in adult patients with sepsis to facilitate early diagnosis and prognostication for a cost to the Company of £162,338. As of December 31, 2024, \$162,609 is still to be paid by the Company under this agreement and as of December 31, 2024, \$162,609 is due by the Company under this agreement.

In July 2023, the Company entered into a research agreement with Xenetic Biosciences Inc and CLS Therapeutics Ltd to evaluate the anti-tumoral effects of Nu. CAR T cells for a cost to the Company of \$107,589. As of December 31, 2024, \$81,447 is still to be paid by the Company under this agreement and as of December 31, 2024, \$6,142 is due by the Company under this agreement.

In January 2024, the Company entered into an agreement with the University Medical Centre Amsterdam ("UMC"). UMC will perform a retrospective study to evaluate the diagnostic potential of the Nu.Q[®] H3.1 nucleosomes as diagnostic, prognostic and phenotyping biomarkers in sepsis for a cost to the Company of \$134,055. As of December 31, 2024, \$89,370 is due by the Company under this agreement.

f) Other Commitments

Volition Vet

On October 25, 2019, the Company entered into an agreement with TAMU for provision of in-kind services of personnel, animal samples and laboratory equipment in exchange for a non-controlling interest of 7.5% in Volition Vet with an additional 5%, vesting in a year from the date of the agreement, giving TAMU in aggregate, a12.5% equity interest as of such date. As of December 31, 2024, TAMU has a 12.5% equity interest in Volition Vet.

Belgian Volition

In connection with the acquisition of the Company's former subsidiary, Volition Germany GMBH, the Company entered into a royalty agreement with the founder providing for the payment of royalties in the amount of 6% of net sales of Volition Germany's nucleosomes as reagents to pharmaceutical companies for use in the development, manufacture and screening of molecules for use as therapeutic drugs for a period of five years post-closing.

As of December 31, 2024, \$202 is payable under the 6% royalty agreement on sales to date towards the Company's aggregate minimum royalty obligation of \$113,856.

g) Legal Proceedings

There are no legal proceedings which the Company believes will have a material adverse effect on its financial position.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 10 - Commitments and Contingencies (continued)

h) Commitments in Respect of Corporate Goals and Performance-Based Awards

As of December 31, 2024, the Company has recognized total compensation expense of \$1,439,767 of which \$527,940 is in relation to RSUs from grants in 2022 that vested in 2023, \$516,039 is in relation to RSUs from such grants that vested in 2024, and \$95,788 is in relation to RSUs from such grants that will vest in 2025. The Company has unrecognized compensation expense of \$115,142 in relation to such RSUs, based on the outcomes related to the prescribed performance targets on the outstanding awards.

| Total Award \$ | Vesting Year | Amortized 2024 \$ | Amortized 2023 \$ | Amortized 2022 \$ | Un-Amortized \$ |
|----------------|--------------|-------------------|-------------------|-------------------|------------------------|
| 527,940 | 2023 | - | 393,853 | 134,087 | - |
| 516,040 | 2024 | 190,833 | 260,119 | 65,088 | - |
| 510,931 | 2025 | 171,519 | 177,584 | 46,686 | 115,142 |
| 1,554,911 | | 362,352 | 831,556 | 245,861 | 115,142 |

In September 2023, the Compensation Committee of the Board of Directors of the Company approved the granting of cash bonuses, payable upon achievement of various corporate goals focused around revenue, operations and regulatory, to various personnel including directors, executives, members of management, consultants and employees of the Company and/or its subsidiaries. Pursuant to the terms of the grants, conditional upon the achievement by December 31, 2023 and June 30, 2024 of specified corporate goals as set forth in the minutes of the Compensation Committee, as well as continued service by the award recipients to the Company at the sole discretion of the Chief Executive Officer and the Chief Financial Officer would pay a cash bonus to such award recipients. As of December 31, 2024, the Company has accrued compensation expense of \$536,535 in relation to cash bonuses payable on the achievement of specified corporate goals based on the expected outcomes related to the prescribed performance targets. To the extent this is payable, this cash bonus compensation payment has currently been deferred indefinitely.

As of December 31, 2024, the Company had recognized total compensation expense of \$494,812. The Company has unrecognized compensation expense of \$205,730 in relation to the RSUs from grants in 2023, of which \$0 is in relation to RSUs that vested in 2024, \$80,175 in relation to RSUs that will vest in 2025, and \$125,555 in relation to RSUs that will vest in 2026 based on the outcomes related to the prescribed performance targets on the outstanding awards.

| Total Award \$ | Vesting Year | Amortized 2024 \$ | Amortized 2023 \$ | Un-Amortized \$ |
|----------------|--------------|-------------------|-------------------|-----------------|
| 242,902 | 2024 | 148,132 | 94,770 | _ |
| 231,266 | 2025 | 103,578 | 47,513 | 80,175 |
| 226,374 | 2026 | 69,116 | 31,703 | 125,555 |
| 700,542 | | 320,826 | 173,986 | 205,730 |

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 11 - Subsequent Events

Equity Distribution Agreement

During the period from January 1, 2025 through March 20, 2025, the Company sold348,706 shares of common stock for aggregate proceeds (net of broker commissions and fees) of approximately \$210,104 under the 2022 EDA.

RSUs Vesting

On January 1, 2025, 21,583 RSUs previously granted to a contractor vested and resulted in the issuance of 21,583 shares of common stock.

On February 22, 2025, 4,667 RSUs previously granted to an employee vested and resulted in the issuance of 2,750 shares of common stock. An aggregate of 1,917 shares of common stock were withheld for taxes and returned to the 2015 Plan

On March 13, 2025, 113,343 RSUs previously granted to an employee vested and resulted in the issuance of 73,220 shares of common stock. An aggregate of 40,123 shares of common stock were withheld as taxes and returned to the 2015 Plan

RSUs Granted

Effective January 15, 2025, the Company granted RSUs of 50,000 shares of common stock to a non-executive officer and director of the Company in exchange for services provided to the Company. These RSUs vest over 3 years, with approximately one-third vesting on each of January 15, 2026, January 15, 2027 and January 15, 2028, subject to continued service by the employee, and will result in total compensation expense of \$31,505.

Effective January 15, 2025, the Company granted RSUs of 16,912 shares of common stock to four Scientific Advisory Board members of the Company in exchange for services provided to the Company. These RSUs vest over 1 years, vesting on January 15, 2026, subject to continued service by the to Scientific Advisory Board members, and will result in total compensation expense of \$10,656.

Effective February 26, 2025, the Company granted RSUs of 125,000 shares of common stock under the 2015 Plan to a consultant in exchange for services provided to the Company. These RSUs vest on May 13, 2025, subject to continued service by the consultant, and will result in total compensation expense of \$\mathbb{S}\$3,000.

Effective February 26, 2025, the Company granted RSUs of 25,000 shares of common stock under the 2024 Plan to a consultant in exchange for services provided to the Company. These RSUs vest on May 13, 2025, subject to continued service by the consultant, and will result in total compensation expense of \$14,600.

Effective March 7, 2025, the Company granted RSUs of 12,500 shares of common stock under the 2015 Plan to a consultant in exchange for services provided to the Company. These RSUs vest on March 7, 2026, subject to continued service by the consultant, and will result in total compensation expense of \$7,563.

Effective March 17, 2025, the Compensation Committee of the Board of Directors approved the granting of cash bonuses of up to two months' gross salary to the salaried employees of the Company and its affiliates, payable upon achievement of various corporate goals focused around licensing, revenue, cost reduction and non-dilutive funding. Pursuant to the terms of the grants, conditioned upon the achievement by the Company or its affiliates/subsidiaries of one or more of the specified corporate goals as set forth in the minutes of the Compensation Committee, and providing that the bonus recipients commenced employment prior to October 1, 2025 and continued employment until at least December 31, 2025, at the sole discretion of both the Chief Executive Officer and the Chief Financial Officer, the Company would pay a cash bonus to such award recipients in their January 2026 monthly payroll.

Effective March 17, 2025, the Compensation Committee of the Board of Directors approved the granting of RSUs of 2,868,000 shares of common stock under the 2024 Plan, payable upon the achievement of various corporate goals focused around licensing, revenue, cost reduction and non-dilutive funding, to various personnel including directors, executives, members of management, consultants and employees of the Company and/or its subsidiaries in exchange for services provided to the Company. Pursuant to the terms of the grants, conditioned upon the achievement by the Company or its affiliates/subsidiaries of one or more of the corporate goals as set forth in the minutes of the Compensation Committee, as determined in the sole discretion of the Compensation Committee, these RSU will vest at a rate of approximately one-third vesting on each of March 17, 2026, March 17, 2027, and March 17, 2028 subject to continued service of the award recipient to the Company through the applicable vesting dates, and will result in total compensation expense of \$1,634,760.

Notes to Consolidated Financial Statements For Years Ended December 31, 2024 and 2023 (\$ expressed in United States Dollars)

Note 11 - Subsequent Events (continued)

RSUs Cancellations

On February 28, 2025, 28,200 RSUs previously granted to a consultant of the Company were cancelled and returned as authorized shares under the 2015 Plan upon cessation of a service contract prior to vesting.

On March 15, 2025, 50,350 RSUs previously granted to a Company employee were cancelled and returned as authorized shares under the 2015 Plan upon resignation prior to vesting.

Options

The following table summarizes the modifications to options on January 29, 2025 where the Company modified a total of 545,000 options to extend their expiry dates to ten years from the original dates of grant. This resulted in \$103,573 of expense.

| Amendment Date | Equity Incentive Plan | Stock Options # | Grant Date | New Expiration Date | Option Expense \$ |
|------------------|------------------------------|--------------------|-------------------|---------------------|-------------------|
| January 29, 2025 | 2015 | 545,000 | February 11, 2019 | February 11, 2029 | 103,573 |
| | | 545,000 | | | 103,573 |

Options Cancellations

On March 20, 2025, 26,200 Options previously granted to a Company employee on August 3, 2021 were cancelled and returned as authorized shares under the 2015 Plan following termination.

Registered Direct Offering

On March 24, 2025, the Company entered into a securities purchase agreement with the several purchasers, pursuant to which the Company issued and sold to such purchasers, in a registered direct offering pursuant to the 2021 Form S-3, an aggregate of (i) 2,363,636 shares of the Company's common stock to certain of its directors and executive officers, and certain of its existing stockholders (collectively, the "Insiders") at an offering price of \$0.55 per share (the "Insider Shares"), and (ii) 1,739,087 shares of common stock (the "Warrant Investor Shares" and, together with the Insider Shares, the "March 2025 Shares"), together with common stock purchase warrants to purchase up to 1,739,087 shares of common stock (the "March 2025 Warrants"), at a combined offering price of \$0.55 per Warrant Investor Share and accompanying March 2025 Warrant, to certain other existing stockholders of the Company and new investors (collectively, the "Warrant Investors"). Each March 2025 Warrant has an exercise price per share of \$0.66, and is exercisable on or after March 26, 2025 through and until March 26, 2030. The Insiders did not receive any March 2025 Warrants in the offering. The net proceeds received by the Company for the issuance and sale of the March 2025 Shares and the March 2025 Warrants was \$2.3 million, before deducting offering expenses of \$0.1 million paid by the Company. The net proceeds above excludes any proceeds arising from the exercise of the March 2025 Warrants.

END NOTES TO FINANCIALS

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ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Mone

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures are controls and procedures that are designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by our company in the reports that it files or submits under the Exchange Act is accumulated and communicated to our management, including our Principal Executive and Principal Financial Officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Our management carried out an evaluation, under the supervision and with the participation of our Principal Executive Officer and Principal Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Based upon that evaluation, our Principal Executive Officer and Principal Financial Officer have concluded, as they previously concluded as of December 31, 2023, that our disclosure controls and procedures were not effective as of December 31, 2024, because of material weaknesses in our internal control over financial reporting, as described below.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

We identified a material weakness in our internal controls over financial reporting. In particular we do not have sufficient written documentation of our internal control policies and procedures, including written policies and procedures to ensure the correct application of accounting and financial reporting with respect to the current requirements of GAAP and SEC disclosure requirements.

Notwithstanding the material weakness, we believe that our financial statements contained in this Report fairly present our financial position, results of operations and cash flows for the periods covered by this Report in all material respects.

Our management, with the oversight of our audit committee, has initiated steps and plans to take additional measures to remediate the underlying causes of the material weakness, which we currently believe will be primarily through revising precision level management review controls and gaining additional assurance regarding our outside service providers' quality control procedures. It is possible that we may determine that additional remediation steps will be necessary in the future.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining a system of internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of our financial reporting and preparation of financial statements for external purposes in accordance with GAAP.

Our management conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control—Integrated Framework (2013)*. Based on this assessment, our management, including our Principal Executive Officer and Principal Financial Officer, concluded that our internal control over financial reporting was not effective as of December 31, 2024 due to material weaknesses.

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Planned Remediation of Material Weaknesses

Our management has been actively engaged in developing and implementing remediation plans to address the material weakness described above. These remediation efforts are ongoing and include or are expected to include:

- · replacing our outside service providers to centralize the accounting function in-house;
- engaging internal control consultants to assist us in performing a financial reporting risk assessment as well as identifying and designing our system of internal controls necessary to mitigate the risks identified;
- · preparation of written documentation of our internal control policies and procedures, and
- we have engaged external consultants to provide support and to assist us in our evaluation of more complex applications of GAAP.

We continue to enhance corporate oversight over process-level controls and structures to ensure that there is appropriate assignment of authority, responsibility, and accountability to enable remediation of our material weakness. We believe that our remediation plan will be sufficient to remediate the identified material weakness and strengthen our internal control over financial reporting. As we continue to evaluate, and work to improve, our internal control over financial reporting, management may determine that additional measures to address control deficiencies or modifications to the remediation plan are necessary.

Changes in Internal Control Over Financial Reporting

Except for the ongoing remediation of the material weakness in internal controls over financial reporting noted above, no changes in our internal control over financial reporting were made during the year ended December 31, 2024, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations of the Effectiveness of Disclosure Controls and Internal Controls

Our management, including our Principal Executive Officer and Principal Financial Officer, does not expect that our disclosure controls and internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control.

The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving our stated goals under all potential future conditions; over time, a control may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Insider Trading Policies and Procedures

The Company has an insider trading policy and procedures governing the purchase, sale and/or other dispositions of the Company's securities that applies to all directors, officers, employees and certain other persons. It is also the Company's policy to take appropriate steps to comply with applicable federal and state securities laws and regulations, as well as applicable stock exchange listing standards, when the Company engages in transactions in the Company's securities. The Company believes that its insider trading policy and procedures are reasonably designed to promote compliance with insider trading laws, rules and regulations, and listing standards applicable to the Company. A copy of the Company's insider trading policy is filed as Exhibit 19.1 to this Report.

The remaining information required under this item is incorporated by reference from our definitive proxy statement related to our 2025 Annual Meeting of Stockholders, or the Proxy Statement, to be filed pursuant to Regulation 14A, on or before April 30, 2025.

ITEM 11. EXECUTIVE COMPENSATION

The information required under this item is incorporated herein by reference from the Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information required under this item is incorporated herein by reference from the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The information required under this item is incorporated herein by reference from the Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required under this item is incorporated herein by reference from the Proxy Statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- (a) The following documents are filed as part of this Report:
- 1. Financial Statements. Included in Part II, Item 8 of this Report and are incorporated by reference herein.
- 2. Financial Statement Schedules. Financial statement schedules are omitted because they are not applicable, or the required information is shown in the financial statements or notes thereto.
- 3. Exhibits.

| | | Incorporated by Reference | | | _ | |
|-------------|--|---------------------------|------------|---------|---------|----------|
| Exhibit | | | | | Filing | Filed |
| Number | Exhibit Description | Form | File No. | Exhibit | Date | Herewith |
| <u>2.1</u> | Agreement for Sale and Purchase of Shares by and between Singapore | 8-K/A | 000-30402 | 2.1 | 5/8/12 | |
| | Volition and ValiRX, dated September 22, 2010. | | | | | |
| <u>2.2</u> | Supplementary Agreement to the Share Purchase Agreement, by and | 8-K/A | 000-30402 | 10.15 | 1/11/12 | |
| | between Singapore Volition and ValiRX, dated June 9, 2011. | | | | | |
| <u>2.3</u> | Share Exchange Agreement by and among Standard Capital | 8-K | 000-30402 | 2.1 | 9/29/11 | |
| | Corporation, the controlling shareholders of Standard Capital | | | | | |
| | Corporation, Singapore Volition and the shareholders of Singapore | | | | | |
| | Volition, dated September 26, 2011. | | | | | |
| <u>2.4</u> | Agreement, Consent and Waiver by and between Standard Capital | 8-K/A | 000-30402 | 10.28 | 4/5/12 | |
| | Corporation and its Shareholders, dated September 27, 2011. | | | | | |
| <u>3.1</u> | Second Amended and Restated Certificate of Incorporation, as | S-8 | 333-280974 | 4.2 | 7/24/24 | |
| | currently in effect. | | | | | |
| <u>3.2</u> | Amended and Restated Bylaws, as currently in effect. | 10-Q | 001-36833 | 3.2 | 5/13/24 | |
| <u>4.1</u> | Description of Capital Stock. | 10-K | 001-36833 | 4.1 | 2/20/20 | |
| <u>4.2</u> | Form of Underwriter Warrant issued to Prime Executions, Inc. dba | 8-K | 001-36833 | 4.1 | 6/5/23 | |
| | Freedom Capital Markets. | | | | | |
| 4.3 | Form of Pre-Funded Warrant. | 8-K | 001-36833 | 4.1 | 8/12/24 | |
| 4.4 | Form of Series A Common Stock Warrant. | 8-K | 001-36833 | 4.2 | 8/12/24 | |
| 4.5 | Form of Series B Common Stock Warrant. | 8-K | 001-36833 | 4.3 | 8/12/24 | |
| 4.6 | Form of Form A Common Stock Purchase Warrant. | 8-K | 001-36833 | 4.1 | 12/9/24 | |
| 4.7 | Form of Form B Common Stock Purchase Warrant. | 8-K | 001-36833 | 4.2 | 12/9/24 | |
| <u>10.1</u> | Non-Exploitation and Third-Party Patent License Agreement, by and | 8-K/A | 000-30402 | 10.6 | 2/24/12 | |
| | among ValiBio SA, ValiRX plc and The Walloon Region, dated | | | | | |
| | <u>December 17, 2009.</u> | | | | | |
| | | | | | | |
| | | | | | | |

| | <u>.</u> | Incorporated by Reference | | | | |
|-------------------|--|---------------------------|------------|---------|----------------|-------------------|
| Exhibit Number | Exhibit Description | Form | File No. | Exhibit | Filing Date | Filed Herewith |
| 10.2# | VolitionRx Limited 2011 Equity Incentive Plan dated November 17, 2011. | 8-K | 000-30402 | 4.1 | 11/18/11 | |
| 10.3# | VolitionRx Limited 2011 Equity Incentive Plan Form of Stock Option Agreement. | 8-K | 000-30402 | 4.2 | 11/18/11 | |
| 10.4# | VolitionRx Limited 2011 Equity Incentive Plan Form of Stock Award Agreement for Restricted Stock. | 8-K | 000-30402 | 4.3 | 11/18/11 | |
| 10.5# | VolitionRx Limited 2015 Stock Incentive Plan, as amended April 17, 2023. | 8-K | 001-36833 | 10.1 | 6/30/23 | |
| <u>10.6#</u> | Form of Notice of Stock Option Grant and Stock Option Agreement under the VolitionRx Limited 2015 Stock Incentive Plan. | S-8 | 333-214118 | 10.2 | 10/14/16 | |
| 10.7# | Form of Notice of Restricted Stock Award and Restricted Stock Agreement under the VolitionRx Limited 2015 Stock Incentive Plan. | S-8 | 333-214118 | 10.3 | 10/14/16 | |
| 10.8# | Form of Notice of Stock Bonus Award and Stock Bonus Award Agreement under the VolitionRx Limited 2015 Stock Incentive Plan. | S-8 | 333-214118 | 10.4 | 10/14/16 | |
| 10.9# | Form of Notice of Stock Appreciation Right Award and Stock Appreciation Right Agreement under the VolitionRx Limited 2015 Stock Incentive Plan. | S-8 | 333-214118 | 10.5 | 10/14/16 | |
| <u>10.10#</u> | Form of Notice of Restricted Stock Unit Award and Restricted Stock Unit Agreement under the VolitionRx Limited 2015 Stock Incentive Plan. | S-8 | 333-214118 | 10.6 | 10/14/16 | |
| <u>10.11#</u> | Form of Notice of Performance Shares Award and Performance Shares Award Agreement under the VolitionRx Limited 2015 Stock Incentive Plan. | S-8 | 333-214118 | 10.7 | 10/14/16 | |
| 10.12# | Form of Independent Director Agreement. | 10-Q | 001-36833 | 10.33 | 5/12/15 | |
| 10.13 | Real Estate Capital Lease Agreement, by and between Belgian Volition and ING Asset Finance Belgium S.A., dated October 4, 2016 (English translation of French original). | 8-K | 001-36833 | 10.1 | 10/31/16 | |
| 10.14# | Employment Agreement, by and between Volition Diagnostics UK Limited and Jacob Micallef, dated March 7, 2017. | 10-K | 001-36833 | 10.28 | 3/10/17 | |

| | | | Incorporated l | y Reference | | |
|-------------------|--|------|----------------|-------------|----------------|-------------------|
| Exhibit Number | Exhibit Description | Form | File No. | Exhibit | Filing Date | Filed Herewith |
| 10.15# | Employment Agreement, by and between Volition Diagnostics UK Limited and Martin Faulkes, dated March 7, 2017. | 10-K | 001-36833 | 10.30 | 3/10/17 | |
| <u>10.16</u> | Unsecured Credit Agreement, by and among VolitionRx Limited, SPRL Belgian Volition and Wallonne de Financement a l'Exportation et de l'Internationalisation des Enterprises Wallones (English translation of French original), dated September 20, 2017. | 8-K | 001-36833 | 10.1 | 9/21/17 | |
| <u>10.17</u> | Clinical Study Agreement, by and between Volition America, Inc. and the Regents of the University of Michigan, dated July 17, 2017. | 10-Q | 001-36833 | 10.1 | 11/09/17 | |
| <u>10.18</u> | Amendment #1 to Clinical Study Agreement, by and between Volition America, Inc. and the Regents of the University of Michigan, dated February 17, 2020. | 10-K | 001-36833 | 10.22 | 2/20/20 | |
| <u>10.19#</u> | Consulting Services Agreement, by and between Singapore Volition Pte. Limited and PB Commodities Pte. Ltd. (Cameron Reynolds), dated December 1, 2020. | 10-Q | 001-36833 | 10.1 | 11/12/20 | |
| <u>10.20#†</u> | Common Stock Warrant issued by VolitionRx Limited to Gael Forterre, dated January 1, 2021. | 10-K | 001-36833 | 10.18 | 03/22/21 | |
| <u>10.21#†</u> | Singapore Volition Pte. Limited Employment Agreement Group Chief Financial Officer, by and between Singapore Volition Pte. Limited and Terig Hughes, dated January 27, 2021 and effective February 1, 2021, including the form of Common Stock Warrant attached as Schedule 2. | 10-K | 001-36833 | 10.19 | 3/22/21 | |
| <u>10.22#†</u> | Volition America, Inc. Employment Agreement Group Chief Commercial Officer, by and between Volition America and Gael Forterre, dated February 1, 2021. | 10-K | 001-36833 | 10.20 | 3/22/21 | |
| 10.23# | Volition Veterinary Diagnostics Development, LLC Employment Agreement Chief Executive Officer, by and between Volition Veterinary Diagnostics Development, LLC and Salvatore Thomas Butera, dated March 25, 2021. | 10-Q | 001-36833 | 10.6 | 5/11/21 | |
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| | | | Incorporated b | by Reference | | |
|-------------------|---|------|----------------|--------------|----------------|-------------------|
| Exhibit Number | Exhibit Description | Form | File No. | Exhibit | Filing Date | Filed Herewith |
| 10.24# | Volition America, Inc. Employment Agreement Chief Operating Officer, by and between Volition America, Inc. and Gaetan Michel, dated September 15, 2021. | 10-Q | 001-36833 | 10.1 | 11/10/21 | |
| 10.25#† | Consulting Services Agreement, by and between Volition Global Services SRL and 3F Management SPRL (Gaetan Michel), dated September 15, 2020. | 10-Q | 001-36833 | 10.2 | 11/10/21 | |
| <u>10.26#</u> | Employment Agreement Group General Counsel, by and between Volition Diagnostics UK Limited and Nick Plummer, dated August 23, 2021. | 10-Q | 001-36833 | 10.3 | 11/10/21 | |
| <u>10.27†</u> | Master License and Product Supply Agreement, by and between Belgian Volition SRL and Heska Corporation, dated March 28, 2022. | 10-Q | 001-36833 | 10.1 | 5/11/22 | |
| <u>10.28</u> | Equity Distribution Agreement, by and between VolitionRx Limited and Jefferies LLC, dated May 20, 2022. | 8-K | 001-36833 | 1.1 | 5/20/22 | |
| 10.29 | Underwriting Agreement, by and between VolitionRx Limited and Newbridge Securities Corporation, dated February 17, 2023. | 8-K | 001-36833 | 1.1 | 2/21/23 | |
| 10.30# | Singapore Volition Pte. Limited Employment Agreement Group Chief Executive Officer, by and between Singapore Volition and Cameron Reynolds. | 10-K | 001-36833 | 10.27 | 3/15/23 | |
| | | | | | | |

| | | Incorporated by Reference | | | | |
|----------------|---|---------------------------|------------|---------|----------|----------|
| Exhibit | | | | | Filing | Filed |
| Number | Exhibit Description | Form | File No. | Exhibit | Date | Herewith |
| <u>10.31</u> | <u>Underwriting Agreement, dated June 1, 2023, by and between</u> | 8-K | 001-36833 | 1.1 | 6/5/23 | |
| | Volition Rx Limited and Prime Executions, Inc. dba Freedom Capital | | | | | |
| | Markets. | | | | | |
| 10.32# | Contract of Employment, by and between Volition Diagnostics UK | 10-K | 001-36833 | 10.36 | 3/25/24 | |
| | Ltd. And Dr. Andrew Retter, dated March 19, 2024 | | | | | |
| <u>10.33#</u> | 2024 Stock Incentive Plan. | 8-K | 001-36833 | 10.1 | 7/3/24 | |
| 10.34# | Form of Notice of Stock Option Grant and Stock Option Agreement | S-8 | 333-280974 | 99.1(a) | 7/24/24 | |
| | under the 2024 Stock Incentive Plan | | | | | |
| <u>10.35#</u> | Form of Notice of Performance Shares Award and Performance | S-8 | 333-280974 | 99.1(b) | 7/24/24 | |
| | Shares Agreement under the 2024 Stock Incentive Plan | | | | | |
| <u>10.36#</u> | Form of Notice of Restricted Stock Award and Restricted Stock | S-8 | 333-280974 | 99.1(c) | 7/24/24 | |
| | Agreement under the 2024 Stock Incentive Plan | | | | | |
| <u>10.37#</u> | Form of Notice of Restricted Stock Unit Award and Restricted Stock | S-8 | 333-280974 | 99.1(d) | 7/24/24 | |
| | Unit Agreement under the 2024 Stock Incentive Plan | | | | | |
| 10.38# | Form of Notice of Stock Appreciation Right Award and Stock | S-8 | 333-280974 | 99.1(e) | 7/24/24 | |
| | Appreciation Right Award Agreement under the 2024 Stock Incentive | | | | | |
| | Plan. | | | | | |
| <u>10.39#</u> | Form of Notice of Stock Bonus Award and Stock Bonus Award | S-8 | 333-280974 | 99.1(f) | 7/24/24 | |
| | Agreement under the 2024 Stock Incentive Plan | | | | | |
| <u>10.40</u> | Form of Securities Purchase Agreement, dated August 8, 2024, by and | 8-K | 001-36833 | 10.1 | 8/12/24 | |
| | among the Company and the purchaser party thereto. | | | | | |
| <u>10.41#†</u> | Permanent employment contract, by and among Belgian Volition | 10-Q | 001-36833 | 10.3 | 11/14/24 | |
| 40.40.01 | SPRL and Gaetan Michel, effective September 2, 2024. | 40.0 | 004.0000 | 40.4 | | |
| <u>10.42#†</u> | First amendment to Consulting Services Agreement, between Volition | 10-Q | 001-36833 | 10.4 | 11/14/24 | |
| | Global Services SRL and 3F Management SPRL, effective September | | | | | |
| 10.40/// | 1, 2024. | | | | | 37 |
| <u>10.43#†</u> | Independent Director Agreement, dated November 6, 2024, by and | | | | | X |
| 10.44 | between VolitionRx Limited and Timothy I. Still | 0.17 | 001 26022 | 10.1 | 12/0/24 | |
| <u>10.44</u> | Securities Purchase Agreement, dated as of December 5, 2024, by and | 8-K | 001-36833 | 10.1 | 12/9/24 | |
| | among the Company and the purchasers on the signature pages | | | | | |
| | thereto. | | | | | |
| | | | | | | |
| | 90 |) | | | | |

| | | | Incorporated b | y Reference | | _ |
|-------------------|--|------|----------------|-------------|----------------|-------------------|
| Exhibit Number | Exhibit Description | Form | File No. | Exhibit | Filing Date | Filed Herewith |
| <u>19.1</u> | Insider Trading & Blackout Policy. | | | | | X |
| <u>21.1</u> | <u>List of Subsidiaries.</u> | | | | | X |
| <u>23.1</u> | Consent of Independent Registered Public Accounting Firm. | | | | | X |
| <u>24.1</u> | Power of Attorney (included on the signature page of this Report). | | | | | X |
| <u>31.1</u> | Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or | | | | | X |
| | Rule 15d-14(a) promulgated under the Securities Exchange Act of | | | | | |
| | 1934, as amended. | | | | | |
| <u>31.2</u> | Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or | | | | | X |
| | Rule 15d-14(a) promulgated under the Securities Exchange Act of | | | | | |
| | 1934, as amended. | | | | | |
| 32.1* | Certifications of Chief Executive Officer and Chief Financial Officer, | | | | | |
| | pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section | | | | | X |
| | 906 of the Sarbanes-Oxley Act of 2002. | | | | | |
| 97.1 | Clawback and Forfeiture Policy | 10-K | 001-36833 | 97.1 | 3/25/24 | |
| | | | | | | |
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| | | | Incorporated | by Reference | | |
|----------|--|------|--------------|--------------|--------|----------|
| Exhibit | | | | | Filing | Filed |
| Number | Exhibit Description | Form | File No. | Exhibit | Date | Herewith |
| 10.1 INS | Inline XBRL Instance Document | | | | | X |
| 101.SCH | Inline XBRL Taxonomy Extension Schema Document. | | | | | X |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document. | | | | | X |
| 101.DEF | F Inline XBRL Taxonomy Extension Definition Linkbase Document. | | X | | | |
| 101.LAB | Inline XBRL Taxonomy Extension Label Linkbase Document. | | | | | X |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document. | | | | | X |
| 104 | Cover Page Interactive Data File (formatted as Inline XBRL and | | | | | X |

Indicates a management contract or compensatory plan or arrangement.

† Portions of this exhibit are redacted pursuant to Item 601(a)(6) and/or Item (b)(10)(iv) under Regulation S-K. The registrant agrees to furnish supplementally any omitted schedules to the SEC upon request.

The certifications attached as Exhibit 32.1 accompany this Report pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed "filed" by the registrant for purposes of Section 18 of the Exchange Act and are not to be incorporated by reference into any of the registrant's filings under the Securities Act or the Exchange Act, irrespective of any general incorporation language contained in any such filing.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

VOLITIONRX LIMITED

Dated: March 31, 2025 By: /s/ Cameron Reynolds

Cameron Reynolds

President, Chief Executive Officer and Director

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Cameron Reynolds and Rodney Rootsaert, and each or either of them, acting individually, his or her true and lawful attorney-in-fact and agent, with full power of substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done or by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report on Form 10-K has been signed below by the following persons in the capacities and on the date indicated.

| Signature | Title | Date |
|---|---|----------------|
| /s/ Cameron Reynolds Cameron Reynolds | President, Chief Executive Officer and Director (Principal Executive Officer) | March 31, 2025 |
| /s/ Terig Hughes Terig Hughes | Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer) | March 31, 2025 |
| /s/ Timothy I Still Timothy I. Still | Director | March 31, 2025 |
| /s/ Guy Innes Guy Innes | Director | March 31, 2025 |
| /s/ Dr. Alan Colman Dr. Alan Colman | Director | March 31, 2025 |
| /s/ Dr. Phillip Barnes Dr. Phillip Barnes | Director | March 31, 2025 |
| /s/ Dr. Ethel Rubin Dr. Ethel Rubin | Director | March 31, 2025 |
| /s/ Kim Nguyen Kim Nguyen | Director | March 31, 2025 |
| /s/ Mickie Henshall Mickie Henshall | Director | March 31, 2025 |
| MICKIC HOUSIAN | | |
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CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT (I) IS NOT MATERIAL AND WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED, OR (II) CONTAINS PERSONALLY IDENTIFIABLE INFORMATION, OMITTED PURSUANT TO ITEM 601(A)(6) UNDER REGULATION S-K.

INDEPENDENT DIRECTOR AGREEMENT

This INDEPENDENT DIRECTOR AGREEMENT is dated November 6, 2024 (the "Agreement") by and between VOLITIONRX LIMITED, a Delaware corporation (the "Company"), and Timothy Still, an individual resident of the State of California (the "Director").

WHEREAS, the Board of Directors of the Company (the "Board") desires to appoint the Director as a member of the Board and as the non-executive Chairman of the Board effective as of November 6, 2024; and

WHEREAS, the Director accepts such appointment and is willing to serve as the non-executive Chairman of the Board on the terms set forth herein and in accordance with the provisions of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. <u>Position</u>. Subject to the terms and provisions of this Agreement, the Director hereby agrees to serve as a member of the Board and as the non-executive Chairman of the Board, <u>provided</u>, <u>however</u>, that the Director's continued service on the Board shall be subject to any necessary approval by the Company's stockholders as required by applicable law and the Company's governing documents.

2. Duties.

- a) During the Directorship Term (as defined herein), the Director shall make reasonable business efforts to attend all Board meetings in person or via conference call, Board and management conference calls as appropriate, serve on appropriate committees as reasonably requested and agreed upon by the Board, make himself or herself available to the Company at mutually convenient times and places, attend external meetings and presentations when agreed on in advance, as appropriate and convenient, and perform such duties, services and responsibilities, and have the authority commensurate to such position.
- b) The Director will use his or her best efforts to promote the interests of the Company and comply with his or her fiduciary duty obligations as imposed by Delaware law. The Company recognizes that the Director (i) is or may become a full-time executive employee of another entity and that his or her responsibilities to such entity must have priority and (ii) may sit on the board of directors of other entities, subject to any limitations set forth by the Sarbanes-Oxley Act of 2002 and limitations provided by any exchange or quotation service on which the Company's common stock is listed or traded. Notwithstanding the same, the Director will provide the Company with prior written notice of any future commitments to such entities and use reasonable business efforts to coordinate his or her respective commitments so as to fulfill his or her obligations to the Company and, in any event, will fulfill his or her legal obligations as a Director. Other than as set forth above, the Director will not, without the prior notification to the Board, engage in any other business activity which could materially interfere or conflict with the performance of his or her duties, services and responsibilities hereunder or which is in violation of the reasonable policies established from time to time by the Company, provided that the foregoing shall in no way limit his or her activities on behalf of (i) any current employer and its affiliates or (ii) the board of directors of any entities on which he or she currently sits. At such time as the Board receives such notification, subject to compliance with applicable law, the Board may require the resignation of the Director if it determines that such business activity does in fact materially interfere with the performance of the Director's duties, services and responsibilities hereunder.
- c) The Director will at all times act as a fiduciary in the service and best interests of the Company. In addition, the Director agrees to (i) provide all information regarding himself or herself as the Company requires to satisfy its disclosure obligations under applicable securities laws; (ii) timely file with the Securities and Exchange Commission all reports and schedules required of the Director in his or her personal capacity by virtue of his or her relationship with the Company (e.g. Forms 3, 4 and 5 as contemplated by Section 16(a) of the Securities Exchange Act of 1934).

3. Compensation.

- a) Fees. Subject to adjustment from time to time at the discretion of the Board or a committee designated by the Board, the Director shall receive US\$30,000 per quarter. The Fees payable to the Director are inclusive of any duties performed by the individual as a director for any associated companies of the Company. Any cash compensation payable under this Section 3(a) and (b) shall be paid directly into your nominated bank account at the end of each calendar quarter.
- b) Committee Fees. Subject to adjustment from time to time at the discretion of the Board or a committee designated by the Board, the Director shall receive USD \$1,000 per day for any services performed as a member of a committee of the Company.
- c) Stock. The Director shall be granted:
 - Restricted Stock Units (RSUs) to receive four hundred thousand (400,000) shares of the Company's common stock underlying the RSUs under the terms and conditions of the Company's 2015 Stock Incentive Plan (the "2015 Plan"), the Notice of Restricted Stock Unit Award and Restricted Stock Unit Agreement. Subject to the Director's continued Service (as defined in the 2015 Plan), the RSUs shall vest in three equal installments at 12 months, at 24 months, and at 36 months from the grant date; and
 - ii. RSUs to receive one million (1,000,000) shares of the Company's common stock underlying the RSUs under the terms and conditions of the Company's 2024 Stock Incentive Plan (the "2024 Plan"), the Notice of Restricted Stock Unit Award and Restricted Stock Unit Agreement. The RSUs to receive the first five hundred thousand (500,000) shares of common stock shall be eligible to vest six (6) months following the achievement by the Company of a closing price of the Company's shares of common stock on The NYSE American Market, or the principal securities exchange on which the common stock is then listed for trading (the "Closing Price"), of at least US\$2.50 per share for a minimum of thirty (30) consecutive trading days within a 3-year period commencing on the grant date and ending on November 6, 2027, which date shall be no earlier than November 6, 2025. That RSUs to receive the second five hundred thousand (500,000) shares of the Company's common stock underlying the RSUs shall be eligible to vest upon the Closing Price exceeding US\$5.00 per share for a minimum of thirty (30) consecutive trading days within a 3-year period commencing on the grant date and ending on November 6, 2027, which date shall be no earlier than November 6, 2025. In the event the Company undergoes a Change of Control (as defined below), the vesting of these RSUs shall be accelerated to fully-vest the rights to these RSUs provided that the purchase price per share of the Company's common stock in such transaction exceeds US\$2.50 per share; and
 - iii. RSUs to receive three hundred thousand (300,000) shares of the Company's common stock underlying the RSUs on an annual basis, the vesting which will be subject to the timely achievement by the Company, or one of its affiliates, of certain corporate goals as determined by the Board or a designated committee in its absolute discretion and upon the terms and conditions set forth in the award agreement and, if applicable, the governing plan. The grant of these annual RSUs shall be subject to the availability of shares under the governing plan, and be made concurrently with the grant of RSUs, on equivalent terms, to the other members of the Board.

For purposes of this Agreement, "Change of Control" shall mean the consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation.

Notwithstanding the foregoing, if the Director ceases to be a member of Board at any time during the vesting period for any reason (such as resignation, withdrawal, death, disability or any other reason), then any unvested shares shall be irrefutably forfeited. The Director agrees that all shares of the Company's stock held by the Director shall be subject to any "lock up" agreement required to be signed by the Company's officers in connection with any financing.

- d) Independent Contractor. The Director's status during the Directorship Term shall be that of an independent contractor and not, for any purpose, that of an employee or agent with authority to bind the Company in any respect. All payments and other consideration made or provided to the Director under this Section 3 shall be made or provided without withholding or deduction of any kind, and the Director shall assume sole responsibility for discharging all tax or other obligations associated therewith.
- e) Expense Reimbursements. During the Directorship Term, the Company shall reimburse the Director for all reasonable out-of-pocket expenses incurred by the Director in attending any in-person meetings, provided that the Director complies with the generally applicable policies, practices and procedures of the Company for submission of expense reports, receipts or similar documentation of such expenses. The Company also agrees to pay the Director up to \$5,000 for fees and expenses of legal counsel and other out-of-pocket expenses incurred in connection with the negotiation and execution of this Agreement.
- 4. <u>Directorship Term.</u> The "Directorship Term," as used in this Agreement, shall mean the period from the commencement of your appointment as a Director of the Company and terminating on the earliest of the following to occur (subject to compliance with applicable laws): (a) the death of the Director; (b) the termination of the Director from his or her membership on the Board by the mutual agreement of the Company and the Director; (c) the removal of the Director from the Board by the vote of the stockholders of the Company in accordance with applicable law and the terms of the Company's governing documents, (d) the failure of the stockholders to re-elect the Director; (e) the resignation by the Director from the Board; or (f) upon the Director becoming prohibited by law from acting as director.
- 5. <u>Director's Representation and Acknowledgment</u>. The Director represents to the Company that his or her execution and performance of this Agreement shall not be in violation of any agreement or obligation (whether or not written) that he or she may have with or to any person or entity, including without limitation, any prior or current employer. The Director hereby acknowledges and agrees that this Agreement (and any other agreement or obligation referred to herein) shall be an obligation solely of the Company, and the Director shall have no recourse whatsoever against any employee or stockholder of the Company or any of their respective affiliates with regard to this Agreement.

6. Director Covenants.

a) Unauthorized Disclosure. The Director agrees and understands that in the Director's position with the Company, the Director will have has been and will be exposed to and receive information relating to the confidential affairs of the Company, including, but not limited to, technical information, business and marketing plans, strategies, customer information, other information concerning the Company's products, promotions, development, financing, expansion plans, business policies and practices, and other forms of information considered by the Company to be confidential and in the nature of trade secrets. The Director agrees that during the Directorship Term and thereafter, the Director will keep such information confidential and will not disclose such information, either directly or indirectly, to any third person or entity without the prior written consent of the Company, or use such information for his or her own benefit or for the benefit of any third person; provided, however, that the Director may, after giving prior notice to the Company to the extent practicable under the circumstances, disclose such information to the extent required by applicable laws or governmental regulations or judicial or regulatory process. Upon termination of the Directorship Term, the Director will promptly return to the Company and/or destroy at the Company's direction all property, notes, memoranda, writings, lists, files, reports, customer lists, correspondence, technical data, other product or document, and any summary or compilation of the foregoing, in whatever form, including, without limitation, in electronic form, which has been produced by, received by or otherwise submitted to the Director in the course or otherwise as a result of the Director's position with the Company during or prior to the Directorship Term.

- b) Non-Compete. It is accepted and acknowledged that the Director may have business interests other than those of the Company and has declared any conflicts that are apparent at present. In the event that the Director becomes aware of any potential conflicts of interest, these will be disclosed to the Board and CEO as soon as apparent.
- c) <u>Insider Trading Guidelines</u>. Director agrees to execute and comply at all times with the Company's Insider Trading Guidelines as well as any other policies adopted by the Company that are applicable to directors.
- d) Remedies. The Director agrees that any breach of the terms of this Section 6 would result in irreparable injury and damage to the Company for which the Company would have no adequate remedy at law; the Director therefore also agrees that in the event of said breach or any threat of breach, the Company shall be entitled to an immediate injunction and restraining order to prevent such breach and/or threatened breach and/or continued breach by the Director and/or any and all entities acting for and/or with the Director, without having to prove damages or paying a bond, in addition to any other remedies to which the Company may be entitled at law or in equity. The terms of this paragraph shall not prevent the Company from pursuing any other available remedies for any breach or threatened breach hereof, including, but not limited to, the recovery of damages from the Director.
- e) <u>Survival</u>. The provisions of this Section 6 shall survive any termination of the Directorship Term, and the existence of any claim or cause of action by the Director against the Company, whether predicated on this Agreement or otherwise, shall not constitute a defense to the enforcement by the Company of the covenants and agreements of this Section 6.
- 7. <u>Indemnification</u>. The Company agrees to indemnify the Director for his or her activities as a member of the Board to the fullest extent permitted under applicable law and its governing documents. The Director agrees to enter into the Company's standard indemnification agreement.
- 8. <u>Directors and Officers Insurance</u>. The Company currently maintains an insurance policy under which the directors and officers of the Company are insured, subject to the limits of the policy, against certain losses arising from claims made against such directors and officers by reason of any acts or omissions covered under the policy in their respective capacities as directors or officers of the Company, including certain liabilities under securities laws. The Company agrees to use commercially reasonable efforts to keep such insurance policy or a reasonable equivalent policy in full force and effect.
- 9. Non-Waiver of Rights. The failure to enforce at any time the provisions of this Agreement or to require at any time performance by the other party hereto of any of the provisions hereof shall in no way be construed to be a waiver of such provisions or to affect either the validity of this Agreement or any part hereof, or the right of either party hereto to enforce each and every provision in accordance with its terms. No waiver by either party hereto of any breach by the other party hereto of any provision of this Agreement to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions at that time or at any prior or subsequent time.
- 10. Notices. Every notice relating to this Agreement shall be in writing and shall be given by personal delivery or by registered or certified mail, postage prepaid, return receipt requested; to:

If to the Company:

VolitionRx Limited 1489 West Warm Springs Road, Suite 110 Henderson, NV 89014 United States of America Attn: Cameron Reynolds

Email: notice@volition.com

If to the Director:

Timothy Still
[***]
[***]

Email: [***]

Either of the parties hereto may change their address for purposes of notice hereunder by giving notice in writing to such other party pursuant to this Section 10

- 11. <u>Binding Effect/Assignment</u>. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, personal representatives, estates, successors (including, without limitation, by way of merger) and assigns. Notwithstanding the provisions of the immediately preceding sentence, the Director shall not assign all or any portion of this Agreement without the prior written consent of the Company.
- 12. Entire Agreement. This Agreement (together with the other agreements referred to herein) sets forth the entire understanding of the parties hereto with respect to the subject matter hereof and supersedes all prior agreements, written or oral, between them as to such subject matter.
- 13. Severability. If any provision of this Agreement, or any application thereof to any circumstances, is invalid, in whole or in part, such provision or application shall to that extent be severable and shall not affect other provisions or applications of this Agreement.
- 14. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without reference to the principles of conflict of laws. The Delaware courts have non-exclusive jurisdiction to settle any dispute and the parties submit to the non-exclusive jurisdiction of the Delaware courts; provided, however, that neither party shall commence any such action or proceeding unless prior thereto the parties have in good faith attempted to resolve the claim, dispute or cause of action which is the subject of such action or proceeding through mediation by an independent third party.
- 15. <u>Legal Fees</u>. The parties hereto agree that the non-prevailing party in any dispute, claim, action or proceeding between the parties hereto arising out of or relating to the terms and conditions of this Agreement or any provision thereof (a "Dispute"), shall reimburse the prevailing party for reasonable attorney's fees and expenses incurred by the prevailing party in connection with such Dispute; <u>provided, however</u>, that the Director shall only be required to reimburse the Company for its fees and expenses incurred in connection with a Dispute if the Director's position in such Dispute was found by the court, arbitrator or other person or entity presiding over such Dispute to be frivolous or advanced not in good faith.
- 16. <u>Modifications</u>. Neither this Agreement nor any provision hereof may be modified, altered, amended or waived except by an instrument in writing duly signed by the party to be charged.
- 17. <u>Tense and Headings</u>. Whenever any words used herein are in the singular form, they shall be construed as though they were also used in the plural form in all cases where they would so apply. The headings contained herein are solely for the purposes of reference, are not part of this Agreement and shall not in any way affect the meaning or interpretation of this Agreement.
- 18. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument.

[Signature page follows.]

IN WITNESS WHEREOF, the Company has caused this Director Agreement to be executed by authority of its Board of Directors, and the Director has hereunto set his hand, on the day and year first above written

VOLITIONRX LIMITED

/s/ Cameron Reynolds
Cameron Reynolds
Chief Executive Officer and Director

DIRECTOR

/s/ Timothy Still
Timothy Still

| Insider Trading & Blackout Policy | | |
|-----------------------------------|------------------------------------|----------|
| Document No: HR-01-05-02 (a) | Revision: English Language Version | |
| Document Type: Policy | Owner: Corporate Secretary | A 7 1 |
| Review Due Date: May 2025 | Approvals - On File | |
| | | Volition |

1. Background and Purpose

- 1.1 VolitionRx Limited (the "Company") is adopting this amended and restated Insider Trading & Blackout Policy (this "Policy") as of April 24, 2023, in light of federal securities laws that prohibit individuals from (i) purchasing or selling Company securities on the basis of material nonpublic information concerning the Company, or (ii) disclosing material nonpublic information ("tipping") to others who might trade on the basis of that information.
- 1.2 The federal securities laws impose severe sanctions on individuals who violate them, including imprisonment, disgorgement of profits gained, or losses avoided, and substantial civil and criminal fines. In addition, the Securities and Exchange Commission (the "SEC") has the authority to impose large fines on the Company and on its supervisory personnel if they fail to take appropriate steps to prevent insider trading (so-called "controlling person" liability).
- 1.3 This Policy applies to all members of the Board of Directors of the Company1 (each, a "Director"), all executive officers and employees of the Company, and certain consultants of the Company and/or other persons designated from time to time by the Company. Individuals subject to this policy are responsible for ensuring that family members who share the same address as, or are financially dependent on, such individual also comply with this Policy. This Policy also applies to any entities controlled by individuals subject to this Policy, including any corporations, limited liability companies, partnerships, trusts or other entities (such entities, together with all Directors, executive officers and employees of the Company, as well as certain consultants of the Company and/or other persons designated from time to time by the Company as being subject to this Policy, are referred to as "Covered Persons").
- 1.4 There is no bright line test for determining whether particular information is material. Such a determination depends on the facts and circumstances unique to each situation and cannot be made solely based on the potential financial impact of the information. However, in general information is "material" (i) if a reasonable investor would likely consider the information important in making a decision to buy, hold or sell securities; or (ii) the information, if disclosed, could be viewed by a reasonable investor as having significantly altered the total mix of information available in the marketplace about the Company. Any information that could reasonably be expected to affect the price of the security is material. The information may be positive or negative. Financial information is frequently material, even if it covers only part of a fiscal period or less than all of the Company's operations, since either of these might convey enough information about the Company's consolidated results to be considered material information.
- 1.5 While it is impossible to list all types of information that might be deemed "material" under particular circumstances, information dealing with the following subjects affecting the Company would generally be considered material:
 - · information regarding sales, revenues or earnings (including projections);
 - · financial forecasts of any kind, including earnings estimates or changes in previously announced earnings estimates;
 - restatements of financial results, or material impairments, write-offs or restructurings;

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Proprietary Information

¹ As used in this Policy, the term "Company" includes any direct or indirect subsidiary of the Company.

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- · significant business trends and metrics;
- significant proposed joint ventures, mergers, acquisitions, investments or divestitures;
- · significant developments in products or services, including commercial launches;
- regulatory developments for new or existing products;
- results of clinical trials;
- · gain or loss of substantial customers;
- news of a significant sale, disposition or write-down of assets;
- · execution or termination of significant contracts or other commercial arrangements;
- financings or restructurings;
- · repayment or incurrence of indebtedness;
- · significant unusual gains or losses;
- · changes in business strategies;
- · developments in significant litigation or government investigations;
- the contents of forthcoming publications that may affect the market price of Company securities;
- · public or private debt or equity offerings;
- significant changes in senior management or other major personnel changes, labor disputes or negotiations;
- · VNRX share repurchases;
- · stock splits, recapitalizations or dividend information; or
- significant breaches of information technology systems or other events impacting cybersecurity.
- 1.4 Information is "nonpublic" if it has not been disseminated in a manner making it available to investors generally. For information to be considered public, there should be some evidence that it has been widely disseminated and that the investing public has had time to absorb the information. You should generally consider information nonpublic until after the completion of at least one full trading day after the information is publicly released, including by press release or widely circulated public disclosure documents filed with the SEC, such as prospectuses or 10-K, 10-Q or 8-K reports, or other method that has been determined by the SEC to be compliant with Regulation FD.

This Policy is intended to summarize the insider trading rules and help:

- · prevent inadvertent violations of the insider trading laws;
- · avoid embarrassing proxy disclosure of reporting violations by persons subject to
 - Section 16 of the Securities Exchange Act of 1934 (the 'Exchange Act');
- avoid even the appearance of impropriety on the part of those employed by, or associated with, the Company;
- · protect the Company from controlling person liability; and
- protect the reputation of the Company, its Directors, executive officers and employees.

You should always remember that anyone scrutinizing transactions in Company securities will be doing so after the fact, with the benefit of hindsight. As a practical matter, before engaging in any such transaction, you should carefully consider how enforcement authorities and others might view the transaction in hindsight and consult with the Compliance Officer (defined below) as needed. Further, there may be instances where you suffer financial harm or other hardship or are otherwise required to forego a planned transaction because of the restrictions imposed by this Policy. Personal financial emergency or other personal circumstances are not mitigating factors under securities laws and will not excuse a failure to comply with this Policy. See Section 5 for additional information about requesting approval to sell Company securities in connection with a financial or other hardship.

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2. Compliance and Oversight by the Compliance Officer

- 2.1 The Board of Directors has designated the Company's Corporate Secretary as the Compliance Officer to oversee compliance with this Policy (the "Compliance Officer"). The duties of the Compliance Officer will include:
 - reviewing and either approving or prohibiting proposed trades and Trading Plans in accordance with the procedures set forth below in Sections 5, 6 and 7;
 - · designating and announcing any special trading blackout periods (as discussed in Section 4);
 - providing and otherwise making available copies of this Policy and other appropriate materials to all current and new Directors, executive officers and employees, and such other persons whom the Compliance Officer determines have access to material nonpublic information concerning the Company;
 - · responding to all inquiries relating to this Policy and its procedures;
 - administering and interpreting this Policy and monitoring compliance with its provisions and procedures;
 - · recommending revisions to this Policy (with the assistance of outside legal counsel as necessary) to reflect changes in applicable laws, regulations or listing standards, provided that all changes to this Policy must be approved by the Board;
 - maintaining as Company records originals or copies of all documents required by the provisions of this Policy and copies of all required SEC reports relating to insider trading; and
 - · such other duties and responsibilities as are consistent with the terms of this Policy.

The Compliance Officer may designate one or more individuals who may perform the Compliance Officer's duties under this Policy in the event that the Compliance Officer is unable or unavailable to perform such duties.

3. Prohibited Activities

- 3.1 No Covered Person may engage in any of the following prohibited activities:
 - purchase, sell, transfer or effectuate any other transaction in any securities of the Company while he or she is aware of any material nonpublic information concerning the Company or its securities. This prohibition includes sales of shares received upon exercise of stock options, upon vesting of restricted stock, or upon settlement of restricted stock units;
 - disclose material nonpublic information concerning the Company or its securities to any outside person (including family members, affiliates, analysts, investors, members of the investment community and news media). Should a Covered Person inadvertently disclose such information to an outside person, such Covered Person must promptly inform the Compliance Officer (or, in the absence of the Compliance Officer, the Chief Financial Officer or General Counsel) regarding this disclosure. In that event, the Company will either take steps necessary to (i) preserve the confidentiality of the information, including requiring the outside person to agree in writing to comply with the terms of this Policy and/or sign a confidentiality agreement, or (ii) disclose the information publicly in accordance with the requirements of Regulation FD;

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- purchase Company securities on margin, hold Company securities in a margin account, or otherwise pledge Company securities as collateral for a loan because, in the event of a margin call or default on the loan, the broker or lender could sell the shares at a time when a Covered Person is in possession of material non-public information, resulting in liability for insider trading. The Compensation Committee of the Board may make exceptions to this prohibition on a case-by- case basis. All requests for preapproval should be submitted at least ten days prior to the proposed date of execution of the pledge. Any Covered Person who intends to pledge the Company's securities must clearly demonstrate the financial capacity to repay the loan without resort to the pledged securities.
- participate in short-term and speculative trading in Company securities, as well as hedging and other derivative transactions involving Company securities, that can create the appearance of impropriety and may become the subject of an SEC or FINRA investigation. These types of transactions can also result in inadvertent violations of insider trading laws and/or liability for "short-swing" profits under Section 16(b) of the Exchange Act. Therefore, it is the Company's policy to <u>prohibit</u> the following activities, even if you are not in possession of material non-public information:
 - o trading in any interest or position relating to the future price of Company securities, such as put or call options or other derivative securities, or entering into any short sale of Company securities.
 - o hedging the value of Company securities. A "hedge" is a transaction designed to offset or reduce the risk of a decline in the market value of an equity security, and can include, but is not limited to, prepaid variable forward contracts, equity swaps, collars and exchange funds.
 - o trading in securities of the Company on an active basis, including short-term speculation.
- purchase or sell any securities of another company while he or she is aware of any material nonpublic information concerning such other company which he or she learned in the course of his or her service as a Director, executive officer, or employee of the Company or otherwise through his or her association with the Company;
- disclose to any other person any material nonpublic information concerning another company which he or she learned in the course of
 his or her service as a Director, executive officer, or employee of the Company or otherwise through his or her association with the
 Company, if it is reasonably foreseeable that such person may use that information in purchasing or selling securities of such other
 company; or
- · make any information about the Company publicly available, including by posting information about the Company on any Internet message board or social media site, except to the extent specifically authorized to do so.

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| | | Volition |

- 3.2 Unless the Compliance Officer otherwise determines either generally or on a case-by-case basis, the prohibition on purchases and sales of Company securities under this Policy does not apply to any of the following:
 - acceptance or purchase of stock options, restricted stock, restricted stock units or other equity awards issued or offered by the Company, and the vesting, cancellation or forfeiture of stock options, restricted stock, restricted stock units or other equity awards in accordance with applicable plans and agreements;
 - exercise of vested stock options or warrants, either on a "cash for stock" or "stock for stock" basis, where no Company stock is sold (by the Covered Person, the Company or otherwise) to fund the option or warrant exercise. However, note that while vested stock options and warrants may be exercised at any time under this Policy, the sale of any stock acquired upon such exercise is subject to this Policy;
 - receipt of Company stock upon vesting of restricted stock or settlement of restricted stock units, as well as the withholding of Company stock by the Company in payment of tax obligations, provided that no Company stock is sold (by the Covered Person, the Company or otherwise) in connection with the payment of tax obligations;
 - Elections with respect to participation in an employee stock purchase plan operated by the Company or purchases made under such plan; provided, however, that the securities so acquired may not be sold except in compliance with this Policy;
 - transfers of Company stock by a Covered Person into a trust for which the Covered Person is a trustee, or from the trust back into the name of the Covered Person;
 - purchases and sales of mutual funds, exchange traded funds or other similar funds or investment vehicles that invest in securities of the Company and with respect to which the Covered Person is a passive investor and has no rights with respect to the voting or disposition of any Company securities, and purchases and sales of Company securities by any such entity;
 - purchases of securities from the Company or sales of securities to the Company in private securities transactions; and
 - purchases or sales made pursuant to a Rule 10b5-1 Trading Plan that has been approved in advance by the Compliance Officer (see Section 7 below).

4. Blackout Periods

- 4.1 No Covered Person may make any purchase or sale of securities of the Company during the following time periods (each, a 'blackout period''):
 - beginning the earlier of the twentieth day of the third month of any fiscal quarter or the date on which the Company's operating results for the second month of any fiscal quarter are first made available to senior management, and ending upon the completion of the first full trading day after the public announcement of earnings for such quarter;
 - beginning at the time of any public earnings-related announcement or public announcement of a significant corporate transaction or event and ending upon the completion of the first full trading day after such announcement, unless otherwise determined by the Compliance Officer; or
 - during such other periods as may be established from time to time by the Compliance Officer, in light of particular events or developments affecting the Company.

In addition, no Covered Person shall inform a non-Covered Person that a blackout period imposed as a result of particular events or developments is in effect.

There are no unconditional "safe harbors" for trades or transactions made at particular times, and all persons subject to this Policy must exercise good judgment at all times. Even when a regular blackout period is not in effect, you may be prohibited from engaging in any transactions involving the Company's securities because you possess material nonpublic information concerning the Company or its securities, are subject to a special blackout period, or are otherwise restricted under this Policy.

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Proprietary Information

| Insider Trading & Blackout Policy | | |
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| Document Type: Policy | Owner: Corporate Secretary | A 7 1 |
| Review Due Date: May 2025 | Approvals - On File | |
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5. Hardship Exemptions

- 5.1 The Compliance Officer may, on a case-by-case basis, authorize trading in Company securities by a Covered Person outside of the applicable trading windows due to financial or other hardships only after:
 - the person desiring to effect a trade has notified the Compliance Officer in writing at least two business days prior to the intended trade date (i) of the circumstances of the hardship and (ii) has also provided the Stock Transaction Request form attached to this Policy indicating the amount and nature of the proposed trade;
 - he or she has certified to the Compliance Officer in writing prior to the proposed trade that:
 - o he or she is not in possession of material, nonpublic information concerning the Company; and
 - o to the best of his or her knowledge, the proposed trade does not violate the trading restrictions of Section 16 of the Exchange Act or Rule 144 of the Securities Act of 1933, as amended; and
 - the Compliance Officer or his designee has approved the trade and has certified such approval in writing.
- 5.2 The existence of these approval procedures does not in any way obligate the Compliance Officer to approve any trade requested by a hardship applicant. The Compliance Officer may reject any hardship exemption requests at his or her sole discretion. The Compliance Officer's decision with respect to the pre-clearance of a particular trade or other transaction, whether approved or denied, shall be final and shall be kept confidential by the requestor.
- 5.3 If the proposed trade is not completed within three business days after receipt of written certification of Compliance Officer approval, a new trading request must be made.

6. Pre- Clearance Procedures for Approving Trades

- 6.1 No Covered Person may make any purchase or sale of securities of the Company (including derivative securities) until:
 - he or she has notified the Compliance Officer of the amount and nature of the proposed trade using the Stock Transaction Request form attached to this Policy. In order to provide adequate time for the preparation of any required reports under Section 16 of the Exchange Act, a Stock Transaction Request form should, if practicable, be received by the Compliance Officer at least two business days prior to the intended trade date:
 - he or she has certified to the Compliance Officer in writing prior to the proposed trade that:
 - o he or she is not in possession of material, nonpublic information concerning the Company; and
 - o to the best of his or her knowledge, the proposed trade does not violate the trading restrictions of Section 16 of the Exchange Act or Rule 144 of the Securities Act of 1933, as amended; and
 - the Compliance Officer or his designee has approved the trade and has certified such approval in writing.

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- 6.3 Persons desiring to trade shall provide to the Compliance Officer any documentation reasonably requested by him or her in furtherance of the foregoing procedures. And failure to provide such requested information will be grounds for denial of approval by the Compliance Officer.
- 6.4 The existence of the foregoing approval procedures does not in any way obligate the Compliance Officer to approve any trade requested. The Compliance Officer may reject any trading request at his or her sole discretion. The Compliance Officer's decision with respect to the preclearance of a particular trade or other transaction, whether approved or denied, shall be final and shall be kept confidential by the requestor.
- 6.5 If the proposed trade is not completed within three business days after receipt of written certification of Compliance Officer approval, a new trading request must be made.

7. Rule 10b5-1 Trading Plans

A Rule 10b5-1 Trading Plan (a "*Trading Plan*") is a contract to purchase, sell or otherwise transact securities according to a written instruction or plan established prior to effecting any transactions in the securities. In general, a Trading Plan must set forth a non-discretionary trading method by leaving the amount of securities to be purchased, sold or otherwise transacted and the price and date for each event to either (i) a written specification, (ii) a written formula, or (iii) a third party. Persons desiring to establish a Rule 10b5-1 Trading Plan must make their own arrangements with a broker to prepare a Trading Plan within the parameters of this Section 7.

Any Covered Person who wishes to implement a Trading Plan must first pre-clear the Trading Plan, and any renewals, amendments or modifications of the Trading Plan, with the Compliance Officer (or, in the case of the Compliance Officer, with the Compensation Committee). The Compliance Officer must approve the Trading Plan, or any renewals, amendments or modifications, in writing. If the proposed Trading Plan is not entered into, renewed, amended or modified within five trading days after the Covered Person has received pre-clearance (or fewer trading days, if so designated as a condition to receiving clearance), pre-clearance for the Trading Plan must be re-requested since circumstances may have changed over that time period.

While adoption of a Trading Plan does not obviate the requirement to otherwise comply with insider trading laws, it does provide an affirmative defense to a claim that the insider acted on the basis of material, nonpublic information, even if an individual was aware of such information at the time of the transaction.

To be adopted in good faith, the Trading Plan must be adopted, renewed, amended or modified when the individual has no knowledge of material nonpublic information, and the plan must not be made as part of a scheme to fraudulently evade insider trading prohibitions.

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In addition to obtaining pre-clearance of a Trading Plan from the Compliance Officer noted above, a Trading Plan must meet the following requirements and specifications:

- 7.1 No Adoption During Blackout Period. A Trading Plan involving the Company's securities may not be adopted, renewed, amended or modified by any Covered Person during any blackout period, even if the individual is not then in possession of any material nonpublic information.
- 7.2 90-Day Cooling-Off Period for Directors and Officers: A Trading Plan adopted by any director or officer may not commence until both (i) the passage of at least 90 calendar days after the adoption, renewal, amendment, or modification of the Trading Plan, and (ii) the passage of at least two business days following the disclosure of the Company's financial results in a Form 10-Q or Form 10-K for the fiscal quarter in which the Trading Plan was adopted, renewed, amended or modified (but in any event, the required cooling-off period is subject to a maximum of 120 calendar days after adoption, renewal, amendment or modification of the Trading Plan).
- 7.3 Cooling-Off Period for Covered Persons Who are Not Directors and Officers: The Trading Plan of a Covered Person who is not a director or officer may not commence until the passage of at least 30 calendar days following the adoption, renewal, amendment or modification of the Trading Plan.
- 7.4 Director and Officer Certifications: Any Trading Plan adopted by a director or officer must include a representation certifying that, at the time of the adoption, renewal, amendment or modification, the director or officer is: (i) not aware of material, nonpublic information about the Company or its securities; and (ii) adopting, renewing, amending or modifying the Trading Plan in good faith and not as part of a plan or scheme to evade the prohibitions of Rule 10b5-1.
- 7.5 Prohibition on Multiple Overlapping Trading Plans: No multiple overlapping Trading Plans will be permitted unless qualifying for one of the following exceptions and pre-cleared by the Compliance Officer under this Section 7: (i) a later-commencing Trading Plan that is not authorized to begin until after all trades under the earlier-commencing Trading Plan are completed or expired; or (ii) an outstanding or additional Trading Plan qualifies as an eligible sell-to-cover transaction (i.e., a sale of securities for the purpose of generating funds to cover the withholding taxes associated with equity vesting and elections under 401(K) plans or employee stock purchase plans that may be structured as Trading Plans).

Any amendments or modifications to a Trading Plan must meet each of the requirements of a new Trading Plan as described above. In addition, while this Policy does not limit the ability of a Covered Person to terminate a previously adopted Trading Plan, any new Trading Plan adopted following the termination of a previously adopted Trading Plan must meet each of the requirements of a new Trading Plan as described above.

Transactions effected under an approved Trading Plan will not require further pre-clearance at the time of the transaction and will typically not be subject to future trading blackout periods (regular or special) that may be in effect under this Policy at the time of the transaction (although the Compliance Officer retains the discretion to terminate a Trading Plan during any blackout period).

The Compliance Officer may, from time to time, institute additional parameters and requirements regarding Trading Plans.

Purchases, sales and other transactions made pursuant to a Trading Plan must still comply with all other applicable reporting requirements under federal and state securities laws, including filings pursuant to Section 16 of the Exchange Act.

Newly adopted SEC rules require the Company to make disclosures concerning the Trading Plans adopted, renewed, amended, modified or terminated by its officers and directors, including names, titles, dates and duration of trading plans, and the aggregate number of securities to be sold or purchased pursuant to the trading plans. Accordingly, you must timely provide such information regarding your Trading Plan to the Compliance Officer.

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8. Penalties for Violation

- The penalties for violating the insider trading laws include imprisonment, disgorgement of profits gained, or losses avoided, and substantial civil and criminal fines. As of the effective date of this Policy, an insider trading violation carries a maximum prison sentence of 20 years. Criminal fines can reach up to \$5.0 million for individuals and \$25.0 million for entities, and civil sanctions may include an injunction, industry bar, disgorgement and penalties of up to three times the profit gained, or loss avoided. Individuals and entities considered to be "control persons" who knew or recklessly disregarded the fact that a "controlled person" was likely to engage in insider trading also may be civilly liable. As of the effective date of this Policy the civil liability of "control persons" can be the greater of (i) \$1.0 million or (ii) three times the amount of the profit gained, or loss avoided. For this purpose, a "control person" is an entity or person who directly or indirectly controls another person, and could include the Company, its directors and officers. Under some circumstances, individuals who trade on material nonpublic information may also be subjected to private civil lawsuits.
- 8.2 Moreover, as the material nonpublic information of the Company is the Company's property, trading on or tipping the Company's confidential information could result in serious employment sanctions, up to and including termination of employment.
- You should be aware that the SEC, FINRA and the New York Stock Exchange use sophisticated electronic surveillance techniques to investigate and detect insider trading, and the SEC and the U.S. Department of Justice pursue insider trading violations vigorously. Cases involving trading through foreign accounts, trading by family members and friends, and trading involving only a small number of shares have been successfully prosecuted.
- Additionally, aside from potential penalties for violating insider trading laws, persons covered by Section 16 of the Exchange Act may also be liable to the Company for any "profit" realized as a result of any purchase followed by a sale, or sale followed by a purchase, of the Company's stock within any period of less than six months (the "Short-Swing Profit Rule"). Subject to limited exceptions, any sale made by a Covered Person subject to Section 16 may be matched against any purchase made within the statutory period, and the transactions will be matched in such a way as to maximize the amount payable by the to the Company. A Covered Person subject to Section 16 should consider carefully whether they have made any other transactions during the preceding six months and, if so, whether such transactions would result in profits recoverable under the Short-Swing Profit Rule.

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9. Company Assistance; Limitation on Liability

- 9.1 Any person who has a question about this Policy or its application to any proposed transaction may obtain additional guidance from the Compliance Officer. Directors, executed officers, employees and certain consultants and other persons associated with the Company shall be required to certify their understanding of, and intent to comply with, this Policy.
- 9.2 The Company shall provide reasonable assistance to all Directors and executive officers, as requested by such Directors and executive officers, in connection with the filing of Forms 3, 4 and 5 under Section 16 of the Exchange Act. However, the ultimate responsibility, and liability, for timely filing remains with the Directors and executive officers.
- 9.3 None of the Company, the Chief Executive Officer, the Chief Financial Officer, the Compliance Officer, the Company's other employees or any other person will have any liability for any delay in reviewing, or refusal of, a Trading Plan submitted pursuant to Section 7 or a request for pre-clearance submitted pursuant to Sections 5 or 6 of this Policy. Notwithstanding any review of a Trading Plan pursuant to Section 7 or pre-clearance of a transaction pursuant to Sections 5 or 6 of this Policy, none of the Company, the Chief Executive Officer, the Chief Financial Officer, the Compliance Officer, the Company's other employees or any other person assumes any liability for the legality or consequences of such Trading Plan or transaction to the person engaging in or adopting such Trading Plan or transaction.

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| Receipt and Acknowledgment |
|---|
| I,, hereby acknowledge that I have received and read, that I understand, and that I agree to comply with the amended and restated Insider Trading & Blackout Policy dated April 24, 2023 (the "Policy") of VolitionRx Limited (the "Company"). I understand that violation of insider trading or disclosure laws or regulations may subject me to severe civil and/or criminal penalties, and that violation of the terms of the Policy may subject me to discipline by the Company up to and including termination for cause. I also understand and agree that the Company may give a stop-transfer and other instructions to the Company's transfer agent against the transfer of Company securities by the undersigned in a transaction that the Company considers to be in contravention of the Policy. |
| Signature |
| Date |
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| Proprietary Information |
| The information contained in these documents is confidential, privileged and only for the information of the intended recipient and may not be used, |
| published or redistributed without the prior written consent of Volition. |

STOCK TRANSACTION REQUEST

Pursuant to the VolitionRx Limited Insider Trading & Blackout Policy (the "Insider Trading Policy"), I hereby notify VolitionRx Limited (the "Company") of my intent to trade securities of the Company as indicated below:

| REQUESTER INFORMATION | |
|---|--|
| Name: | |
| INTENT TO PURCHASE | |
| Number of shares | |
| Intended trade date: | |
| Means of purchasing shares | |
| ☐ Acquisition through employee benefit plan (| alease specify): |
| | nease specify). |
| ☐ Purchase through a broker on the open marke | et |
| ☐ Other (please specify): | |
| INTENT TO SELL | |
| Number of shares | |
| Intended trade date: | _ |
| Means of selling shares | |
| ☐ Sale through employee benefit plan (please s | pecify): |
| ☐ Sale through a broker on the open market | |
| ☐ Other (please specify): | |
| proposed trade(s) listed above does not violate the tradin under the Securities Act of 1933, as amended, and (iii) I a | aterial, nonpublic information concerning the Company, (ii) to the best of my knowledge, the g restrictions of Section 16 of the Securities Exchange Act of 1934, as amended, or Rule 144 m not purchasing any securities of the Company on margin in contravention of the Company's e possessing such information or in violation of such trading restrictions, I may be subject to to discipline by the Company including termination. |
| Signature: | Date |
| AUTHORIZED APPROVAL | |
| Signature of Compliance Officer (or designee) | Date |
| CONFIRMATION OF TRANSACTION | |
| I hereby confirm that the transaction(s) requested above w | ras (were) executed as follows: |
| Purchase of shares:Price per share: | Date and approximate time of purchase |
| Sale of shares: Price per share: Price per share: | Date and approximate time of sale |
| Signature | Date |
| | |

Date

Signature

*NOTE: Multiple lots must be listed on separate forms or broken out herein

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Proprietary Information

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SUBSIDIARIES OF VOLITIONRX LIMITED

| Name of Subsidiary | State or other Jurisdiction of Incorporation or Organization |
|---|--|
| Singapore Volition Pte. Limited (100% subsidiary of VolitionRx Limited) | Singapore |
| Belgian Volition SRL (100% subsidiary of Singapore Volition Pte. Limited) | Belgium |
| Volition Diagnostics UK Limited (100% subsidiary of Belgian Volition SRL) | United Kingdom |
| Volition America, Inc. (100% subsidiary of Belgian Volition SRL) | Delaware |
| Volition Veterinary Diagnostics Development LLC. (87.5% subsidiary of Belgian Volition SRL) | Texas |
| Volition Global Services SRL (100% subsidiary of VolitionRx Limited) | Belgium |

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Audit Committee VolitionRx Limited

As independent registered public accountants, we hereby consent to the incorporation by reference of our report dated March 31, 2025, contained in this annual report on Form 10-K with respect to the consolidated financial statements of VolitionRx Limited, in its registration statements on Form S-3 (Registration Statement Nos. 333-195213, 333-227248, 333-227731, 333-236335, 333-259783, 333-280217, and 333-283088) and its registration statements on Form S-8 (Registration Statement Nos. 333-208512, 333-214118, 333-221054, 333-227565, 333-236336, 333-258133, 333-267692, 333-273263 and 333-280974).

/s/ Sadler, Gibb & Associates, LLC Draper, UT March 31, 2025

S|G Phone: 801-783-2950 | Fax: 801-783-2960 | 344 West 13800 South, Suite 250, Draper, UT 84020 | sadlergibb.com

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Cameron Reynolds, certify that:

- 1. I have reviewed this annual report on Form 10-K of VolitionRx Limited;
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 31, 2025

/s/ Cameron Reynolds

Cameron Reynolds

President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Terig Hughes, certify that:

- 1. I have reviewed this annual report on Form 10-K of VolitionRx Limited;
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 31, 2025

/s/ Terig Hughes

Terig Hughes
Chief Financial Officer and Treasurer

CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The following certifications are hereby made in connection with the Annual Report on Form 10-K of VolitionRx Limited (the "Company") for the period ended December 31, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"):

I, Cameron Reynolds, President and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, (i) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and (ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods presented.

Date: March 31, 2025 By: /s/ Cameron Reynolds

Cameron Reynolds

President and Chief Executive Officer

I, Terig Hughes, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, (i) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and (ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods presented.

Date: March 31, 2025 By: /s/ Terig Hughes

Terig Hughes

Chief Financial Officer and Treasurer