

Volition



NYSE:VNRX Corporate Deck

February 2025

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Our mission is to save lives and improve outcomes for millions of people and animals worldwide.

VolitionRx

- (NYSE: VNRX)
- Diagnostics (epigenetics)
- ✓ Commercial
- 9M Rev: \$1M ('24)
- Plus, licensing related payments of \$23M (22-24)
- Total revenue derived from milestone payments and ongoing sales

Our Focus

- Advancing low-cost, early detection and treatment monitoring tests
- Revenue expansion beyond animal assays with strong focus into human health

Disease Areas

- Cancer
 - Sepsis
- Licensing Data Room
LIVE

Commercial Validation

- Commercial launches worldwide in animal health (2022-2024)
- Further IP licensing and partnering opportunities beyond animal health in active discussions
- 9M Rev: \$1M ('24)

Multi-National

- 85 employees
- 27,000 square foot lab and production spaces in Gembloux, Belgium
- Innovation Lab in California
- Other Offices in:
 - London
 - Nevada (HQ)

Several clinical papers demonstrating clinical utility submitted / due shortly to help advance human licensing deal(s).

Vet Commercial Progress

- Nu.Q® Vet Cancer test now available in 20 countries
- Sold >110,000 tests and test components Q1-Q3 2024
- Received \$23 million in upfront and milestone payments to-date
 - Additional \$5 million milestone payment (feline) anticipated 2025
 - Simple, low cost, recurring revenue generating tests performed on standard lab equipment
- **Multiple international partnerships launching**

Expansion into Human Diagnostics

- Same business model as Nu.Q® Vet – low capex/low opex, leveraging global base of established diagnostic and liquid biopsy companies
- **Clinical Partnering: multiple near-term licensing opportunities progressing**
- **Direct and Indirect sales of CE marked product(s) in Europe as hospitals evaluate for routine clinical use**

Large Unmet Needs

- **Lung Cancer Screening** – screening, prognostics and MRD represent a \$1.8B opportunity
- **Sepsis** – testing and monitoring ICU patients alone is a ~\$1B+ opportunity
- **Other addressable markets** include Acute Kidney Injury (AKI), Acute Respiratory Distress Syndrome (ARDS) and use in the Emergency Department **>\$10B** opportunity





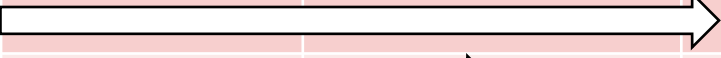
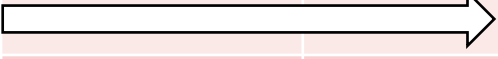
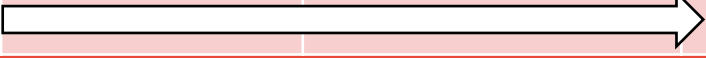


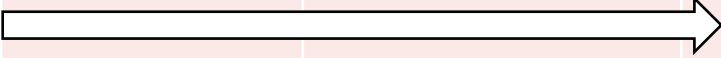
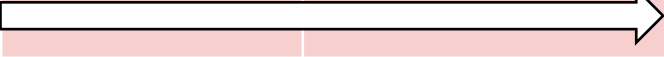
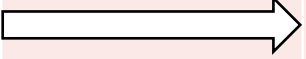
Strong IP

- 81 patents granted
- 129 pending internationally
- Patent coverage up to 2044

Derisked R&D and Commercial Strategy: Reported First \$1 million Revenue 2024

- Licensed to two of the largest veterinary service companies world-wide
 - Available via reference labs and at point-of-care in-clinic exclusively with Antech
 - Nu Q[®] Vet Cancer Test developed with the goal of providing an accessible and affordable screening test to aid in early cancer detection.
- This test can be easily integrated into preventive care programs and used alongside other routine bloodwork during regular wellness visits.
- It's a simple, 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).
- The Nu.Q[®] Vet Cancer Test is now available in the United States, Europe and many countries throughout Asia.
- Revenue ramping-up as Antech rollout globally and FujiFilm Vet System (in 90% of all vet clinics in Japan) came online

Licensing Portfolio: Platform stable, reproducible

Application	Proof of Concept	Viability	Validation	Licensed
Animal				
Canine Cancer Screening				   Launched
Canine Cancer Monitoring				
Feline Cancer				
Automated test				In negotiation
Human				
Sepsis				Data room available
Cancer				Data room available
Lung Cancer Screening				Data room available
Minimal Residual Disease & Disease Management				Data room available
Multi-Cancer Early Detection				Data room available
Capture-PCR™				Data room available

Executive Team



Cameron Reynolds MBA,
President & Group CEO



Terig Hughes
Group CFO



Gaetan Michel PhD
COO



Louise Batchelor
Group CMO and
Comm. Officer



Andrew Retter
Chief Medical Officer



Jake Micallef, PhD
CSO



Gael Forterre, MBA
CCO



Jasmine Kway PhD
CEO, Singapore Volition



Tom Butera DVM
CEO, VVDD



Nick Plummer,
Group General Counsel



Rodney Rootsart
Corp. Secretary

Select Experience



What sets us apart?

- Our tests are *simple, low-cost* **accessible** routine blood tests
 - Platform agnostic, can be adapted to any diagnostic workflow
 - Manual, Reference Lab, Specialist Lab and Point of Care



Six Hours



45 minutes



<10 minutes



<15 minutes

- Our expanding *Intellectual Property* portfolio
 - 81 patents granted, 129 pending, across 54 patent families¹

Go-to-Market Strategy

R&D

- **R&D conducted** by Volition and its research partners
- **Monetize IP** through licensing agreements with upfront payments, milestone payments, royalties and sales of key components

Non-exclusive licensing and partnering criteria:

- ✓ *Broad geographic reach*
- ✓ *Large installed base*
- ✓ *Experience of tech transfer*
- ✓ *Regulatory and clinical affairs*
- ✓ *Patient focused*

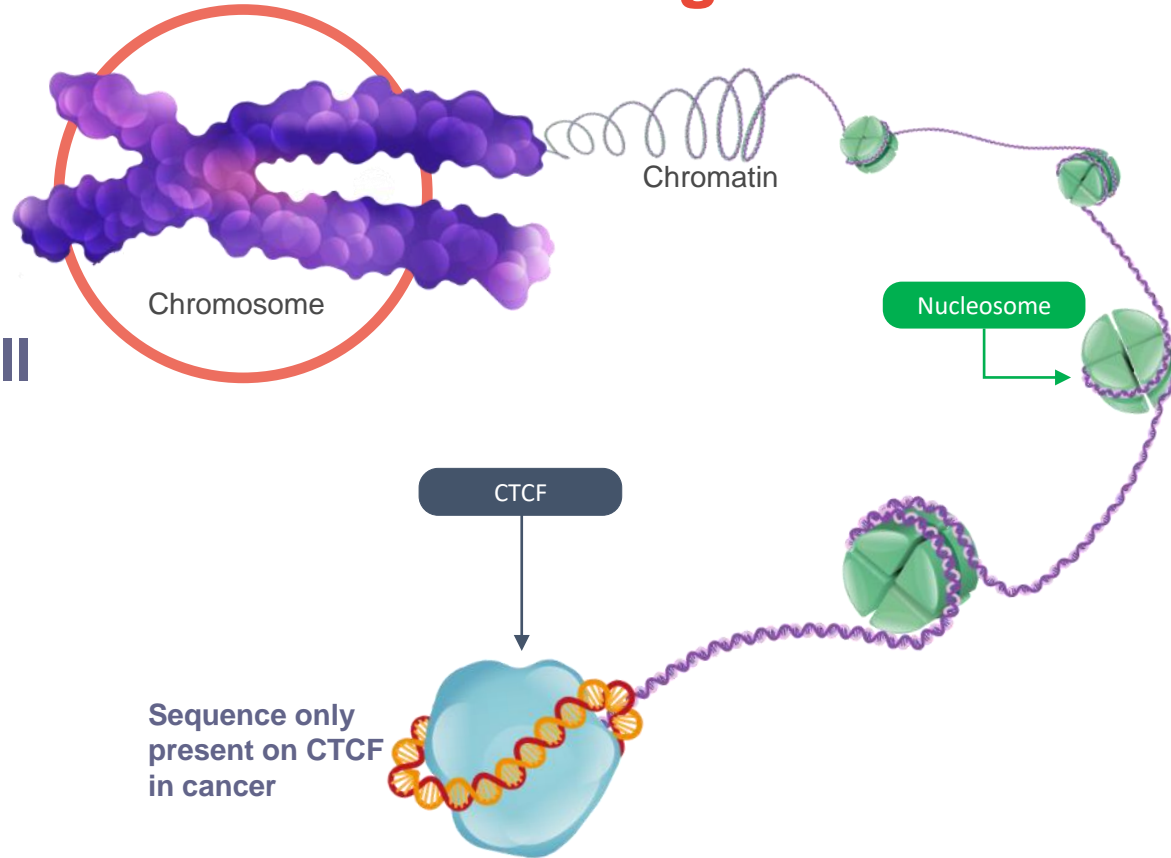
Two underlying principles:

- Low CapEx for partners / Low OpEx for Volition
- Low-cost and routine = **accessible** tests worldwide



**Great Track
Record with
Nu.Q[®] Vet**

Cancer and cell death cause chromatin fragmentation



A close-up, profile view of a golden retriever dog's head. The dog is looking towards the right of the frame. It has a thick, wavy coat of golden-brown fur. Its mouth is open, and it is holding a bright green tennis ball. The background is a soft-focus outdoor setting with trees and a fence.

Nu.Q[®] Vet Cancer Test

Now
available in
20 countries
and growing!

Sold **> 110,000**
Nu.Q[®] Vet Cancer
Tests & Test
Components YTD
2024

Revenue
+307% Q3
2024 vs Q3
PY

Licensing & Supply Agreements to-date



- Launched with IDEXX in the U.S Jan '23



- Launched in U.S. / Aus /HK/Singapore/ some EU countries April '24



- Launched in UK & Ireland Nov '23



- Launched in Portugal Nov '22



- Launched in Taiwan Nov '23



- Launched in Singapore Nov '23



- Launched July '24



- Launched in Poland July '24

Nu.Q[®] exclusively available in-house with **Antech**[™]



- ❖ Exclusive Element i+ in-house analyzer licensing partnership with Antech
- ❖ \$10M upfront and \$13M milestone payments received to-date. \$5M milestone payment linked to use in felines remaining
- ❖ Launched **April 2024**
- ❖ Ongoing revenue from the purchase of kits and key components

Nu.Q® Vet Cancer Test on the Element i+ Analyzer

- ❧ Immediate Results (<10 mins)
- ❧ Accurate (detects 76% of systemic cancers at 97% specificity)
- ❧ Cost effective (\$35 to the vet)
- ❧ Allowing veterinarian to make informed clinical decisions quickly in-house – whilst the patient is still in clinic



Licensing Portfolio

nu·q nets

Sepsis & Thrombosis



Neutrophil Extracellular Traps (NETs)

NETs:

- are produced by ejecting chromosomal material out of the cell
- catch and kill bacteria and viruses
- can sterilize blood in minutes
- first reported in 2004¹ now the subject of > 5000 publications



NEW [review article](#) published February 2025 (Dr. Retter, Profs Singer & Annane)

1. Brinkmann V, Reichard U, Goosmann C, Fauler B, Uhlemann Y, Weiss DS, Weinrauch Y, Zychlinsky A. Neutrophil extracellular traps kill bacteria. Science. 2004 Mar 5;303(5663):1532-5. DOI: [10.1126/science.1092385](https://doi.org/10.1126/science.1092385)

1 in 5 deaths worldwide are associated with sepsis

Almost **50 million** cases resulting in **11 million** deaths

Over 40% of cases are children under 5 years of age

It's the **number 1...**

Cause of death in hospitals

Cause for hospital readmissions

Healthcare cost (\$62bn in USA pa alone)

Over **40%** of survivors suffer from long-term physical or psychological effects

Unmet Needs

- Current diagnosis is empirical, multi-factorial and subjective.
- CURRENT methods of assessment (SOFA and APACHE II) are both complex & slow.
- Accepted need for **improved diagnostics**¹.

1. Rudd et al. 2020 The Lancet [doi: 10.1016/S0140-6736\(19\)32989-7](https://doi.org/10.1016/S0140-6736(19)32989-7).

Studies at Centers of Excellence: >3000 patients

Study	Country	Description	Cohort Size	Status
SISPCT	Germany	Retrospective analysis of prospectively collected cohort	971 intensive care patients Multiple timepoints	Completed. Manuscript under review
Amsterdam UMC	Netherlands	Retrospective analysis of prospectively collected cohort	1,713 intensive care patients Multiple timepoints	Completed. Manuscript submitted
RHU RECORDS	France	Prospective, multi-center, placebo controlled, bio-marker-guided, adaptive Bayesian design basket trial	1,500 intensive care patients Interim analysis of 416 patients	Ongoing

Executive Summary: consolidated conclusions

Results from three independent studies totalling over 3,000 patients

These findings are consistent across cohorts¹⁻³

An elevated H3.1 level reflects a dysregulated immune response and is associated with:

- a risk of **increased mortality**
- an increased risk of **septic shock**
- an increased risk of **(multi-) organ failure**
- an increased risk of **ARDS**
- an increased risk of **renal failure**

...could be thought of as a **Treatable Trait** in sepsis management

1. German Data Set, manuscript submitted; 2. Amsterdam UMC Data Set, manuscript submitted; 3. RHU Records Data Set, data on file

NETs: Casting a new light on sepsis management



Satellite Symposium at ESICM LIVES 2024



Prof. Djillali Annane

Professor of Medicine,
University Paris Saclay-UVSQ,
France



“As a Critical Care Consultant, I see the devastating effects of this disease each day. I believe Nu.Q[®] NETs, as a diagnostic tool, has the potential to bring about a paradigm shift in sepsis management. I hope that Nu.Q[®] NETs becomes widely available - in every intensive care unit, in every hospital setting - to help ensure we detect, treat, and monitor sepsis earlier and save lives.”

Our focus...

To develop a **low-cost, routine** test to **stratify risk** of sepsis particularly those at risk of progressing to multiple organ failure; in addition to **monitoring** the disease progression and response to treatment.

- Data from several large-scale studies presented at ESICM LIVES 2024¹
- Manuscripts (featuring results from >2,500 patients) now submitted for peer review and publication²

Licensing discussions progressing with a number of large diagnostic companies.

1. Data on file, VNRX
2. Manuscripts submitted

cancer

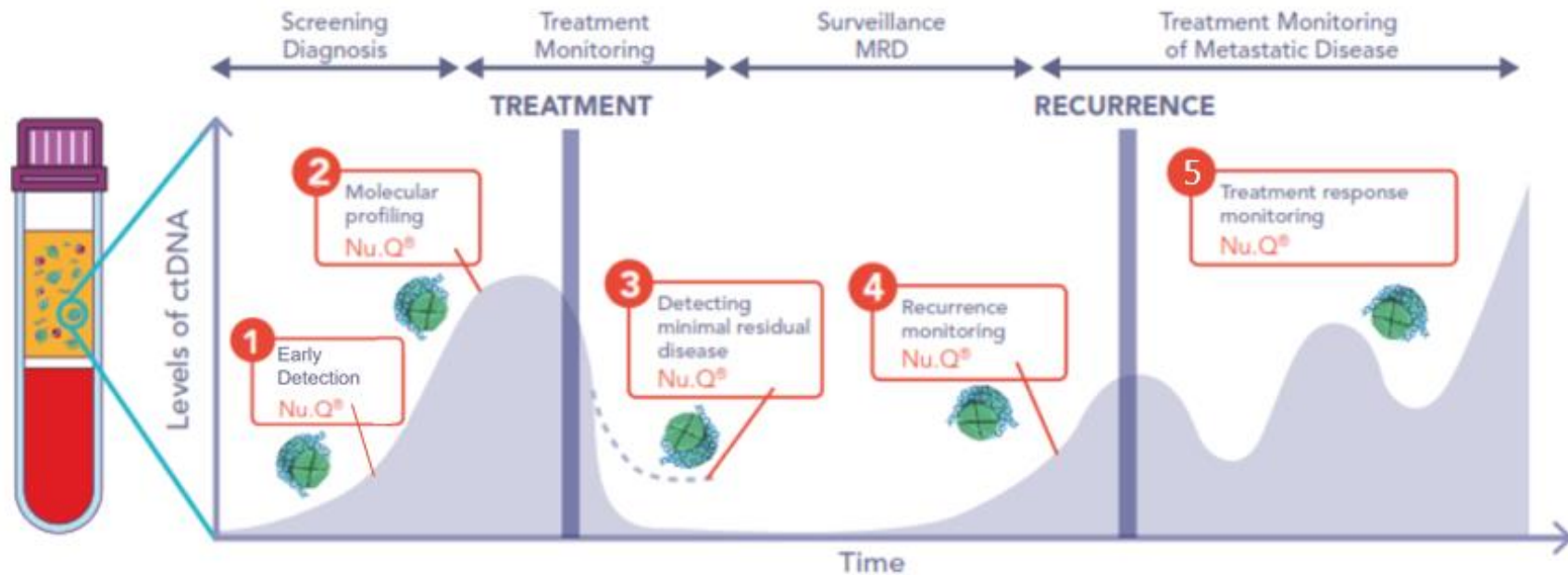
nu·q
cancer

Lung

capture
pcr

- Low-cost, routine and accessible tests to help detect and monitor disease progression and aid treatment selection

Potential applications of a blood test in lung cancer: Nu.Q[®] addresses all five



Peng Y, Mei W, Ma K and Zeng C (2021) Circulating Tumor DNA and Minimal Residual Disease (MRD) in Solid Tumors: Current Horizons and Future Perspectives. *Front. Oncol.* 11:763790. doi: 10.3389/fonc.2021.763790

Study Overviews

- Range of studies from prospective and retrospective, blinded, longitudinal studies of lung cancer.
- Cohort sizes – ranging from 70 to 800 patients.
- Covering detection of lung cancer at diagnosis and during treatment
- KEY Outcome measures to demonstrate CLINICAL UTILITY (correlation with):
 - Sensitivity and specificity
 - Positive Predictive Value (PPV) – aiding rule-in/rule-out
 - Minimal Residual Disease (MRD)
 - Overall Survival (OS)
 - Recurrence Prediction

To develop low-cost, routine tests to help:

- detect disease early
- provide tailored treatment
- assess response to treatment
- identify MRD
- support continued treatment decisions

Many data in the **Confidential Data Room**

- NTU lung paper available on [MedRXIV](#)
- Lyon data presented at AACR and ESMO 2024, manuscript in development
- Next key conference for NEW data release ELCC March 2025

Proof of Concept:

Potential Breakthrough Cancer Detection Method¹.



- **Novel wet chemistry pathway for ctDNA analysis**
- **Discovered a completely new class of biomarkers that are invisible to current methods and demonstrated that they can be isolated as pure ctDNA**
- **Identified hundreds of potential short cfDNA sequences using samples from six cancer types**
- **Thus far developed prototype, low-cost, rapid PCR assays to 14 sequences and tested them in a small number of samples**
- **Performed a small study that demonstrates that the method enriches ctDNA fragment sequences to near 100% purity AND discriminates early-stage cancer**

1. Data on file, VNRX

Summary

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- Listed, commercial stage diagnostics company — developing **low-cost, early detection and treatment monitoring diagnostics** in human and animal health
 - Disease areas – global killers: Cancer, Sepsis; significant market opportunities
 - Human and Veterinary use cases:
 - Screening
 - Monitoring (disease progression and response to treatment)
- Revenue focus on **veterinary cancer and direct/indirect sales of CE-Marked product(s) in Europe**
- Multiple near-term licensing opportunities IN DISCUSSION:
 - for cancer detection and monitoring
 - and sepsis

Questions?

Thank you for your interest in Volition.

For more details, please visit www.volition.com