

# VolitionRx Granted Fourth U.S. Patent

# -Patents covering three of the four primary areas of VolitionRx's Nucleosomics® technology have now been granted -

NAMUR, Belgium, July 27, 2016 /PRNewswire/ --<u>VolitionRx Limited</u> (NYSE MKT: VNRX), a life sciences company focused on developing diagnostic tests for cancer and other conditions, today announced that the U.S. Patent and Trademark Office granted the Company U.S. Patent Number 9,400,276 titled "Method For Detecting Nucleosomes Containing Histone Variants."

The new U.S. patent, issued on July 26, 2016 and expiring on August 31, 2032, relates to VolitionRx's Nucleosomics<sup>®</sup> platform for the detection of fragments of chromosomes, called nucleosomes, circulating in the blood. This patent is complementary to and will support the first three patents granted to VolitionRx in the U.S.

Dr. Jake Micallef, Chief Scientific Officer of VolitionRx, remarked, "Volition now has been granted four U.S. patents covering three of the four core epigenetic areas of our Nucleosomics<sup>®</sup> technology, including nucleosomes containing histone modifications, histone variants and nucleosome adducts as well as methods for detecting nucleosomes *per se*. Additional patent applications covering the measurement of nucleosomes containing DNA modifications are pending."

Cameron Reynolds, Chief Executive Officer of VolitionRx, added, "We are very pleased with this U.S. patent grant, our fourth in total. Our proprietary Nucleosomics<sup>®</sup> approach, which detects mutations present throughout the entire nucleosome, differs from the more common approach of analyzing only the DNA strand. This important patent adds to our intellectual property portfolio and further strengthens our ability to protect commercially our groundbreaking work in this cutting edge field."

Results from clinical trials to date demonstrating the effectiveness of VolitionRx's Nu® biomarker assays include:

#### Colorectal cancer and pre-cancerous colorectal adenomas

- Interim results from a 4,800 patient retrospective symptomatic population study (Hvidovre Hospital, University of Copenhagen, Denmark), released September 9, 2015: Panel of four NuQ<sup>®</sup> biomarker assays detected 81% of colorectal cancers at 78% specificity and 67% of high-risk adenomas. For more information <u>click here</u>.
- Results from a completed prospective study of 121 patients referred for colonoscopy (CHU Dinant Godinne - UCL Namur, in Belgium), released December 8, 2015: Panel of four NuQ<sup>®</sup> biomarker assays detected 91% of colorectal cancer cases at 90% specificity and also detected 67% of high-risk adenomas. For more information <u>click</u> <u>here</u>.

 Results from a retrospective study of 430 patients referred for colonoscopy (Hvidovre Hospital, University of Copenhagen, Denmark), released February 17, 2016: Panel of five NuQ<sup>®</sup> biomarker assays demonstrated 75% accuracy in detecting highest-risk precancerous colorectal adenomas and also detected 86% of early (stage I) colorectal cancers at 78% specificity. For more information <u>click here</u>.

## Pancreatic cancer

- Results from a 59-patient retrospective study (Lund University, Sweden) published in Clinical Epigenetics online journal (<u>http://www.clinicalepigeneticsjournal.com/content/pdf/s13148-015-0139-4.pdf</u>), October 7, 2015: Panel of four NuQ<sup>®</sup> biomarker assays plus CA 19-9 classical biomarker detected 92% of pancreatic cancers at 100% specificity. For more information <u>click here</u>.
- Interim results from a 4,800 patient retrospective symptomatic population study (Hvidovre Hospital, University of Copenhagen, Denmark), released October 22, 2015: Panel of two NuQ<sup>®</sup> biomarker assays and the classical cancer marker CEA (carcinoembryonic antigen) detected 95% of pancreatic cancers at 84% specificity. For more information <u>click here</u>.

## Prostate Cancer

 Results from a 537-patient retrospective study (Surrey Cancer Research Institute at University of Surrey, United Kingdom), released April 20, 2016 at the AACR Annual Meeting: A single NuQ<sup>®</sup> biomarker assay detected 71% of early stage I prostate cancer cases and 86% of late stage IV prostate cancer at 93% specificity, which is significantly higher than the commonly-used PSA test reported to detect 53% of prostate cancers at 73% specificity. For more information <u>click here</u>.

## Lung cancer

 Interim results (73 of 240 patients collected and assessed) from a prospective study (Liege University Hospital, Belgium), released November 19, 2015: Panel of four NuQ<sup>®</sup> biomarker assays detected 93% of lung cancers at 91% specificity and differentiated lung cancer from the common lung disease, COPD. For more information <u>click here</u>.

## About VolitionRx

VolitionRx is a life sciences company focused on developing diagnostic tests for cancer and other conditions. The tests are based on the science of Nucleosomics<sup>®</sup>, which is the practice of identifying and measuring nucleosomes in the bloodstream or other bodily fluid -- an indication that disease is present.

VolitionRx's goal is to make the tests as common and simple to use, for both patients and doctors, as existing diabetic and cholesterol blood tests. VolitionRx's research and development activities are currently centered in Belgium as the company focuses on bringing its diagnostic products to market first in Europe, then in the U.S. and ultimately, worldwide.

Visit VolitionRx's website (<u>http://www.volitionrx.com</u>) or connect with us via<u>Twitter</u>, <u>LinkedIn</u>, <u>Facebook</u> or <u>YouTube</u>.

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#### Safe Harbor Statement

Statements in this press release may be "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that concern matters that involve risks and uncertainties that could cause actual results to differ materially from those anticipated or projected in the forward-looking statements. Words such as "expects," "anticipates," "intends," "plans," "aims," "targets," "believes," "seeks," "estimates," "optimizing," "potential," "goal," "suggests," "could," "would," "should," "may," "will" and similar expressions identify forward-looking statements. These forward-looking statements relate to the effectiveness of the Company's bodily-fluid-based diagnostic tests as well as the Company's ability to develop and successfully commercialize such test platforms for early detection of cancer. The Company's actual results may differ materially from those indicated in these forward-looking statements due to numerous risks and uncertainties. For instance, if we fail to develop and commercialize diagnostic products, we may be unable to execute our plan of operations. Other risks and uncertainties include the Company's failure to obtain necessary regulatory clearances or approvals to distribute and market future products in the clinical IVD market; a failure by the marketplace to accept the products in the Company's development pipeline or any other diagnostic products the Company might develop; the Company will face fierce competition and the Company's intended products may become obsolete due to the highly competitive nature of the diagnostics market and its rapid technological change; and other risks identified in the Company's most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as well as other documents that the Company files with the Securities and Exchange Commission. These statements are based on current expectations, estimates and projections about the Company's business based, in part, on assumptions made by management. These statements are not guarantees of future performance and involve risks, uncertainties and assumptions that are difficult to predict. Forward-looking statements are made as of the date of this release, and, except as required by law, the Company does not undertake an obligation to update its forward-looking statements to reflect future events or circumstances.

Nucleosomics<sup>®</sup>, NuQ<sup>®</sup> and HyperGenomics<sup>®</sup> and their respective logos are trademarks and/or service marks of VolitionRx Limited and its subsidiaries. All other trademarks, service marks and trade names referred to in this press release are the property of their respective owners.

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