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## **VolitionRx Presents Further Colorectal Cancer Data at 9th International Conference of Anticancer Research**

### **Demonstrates NuQ(R) Blood Test Detects Colorectal Cancer in Early and Late Stages with High Accuracy and Differentiates Between Colon and Rectal Cancers**

NAMUR, Belgium, Oct. 9, 2014 /PRNewswire/ --[VolitionRx Limited](#) (OTCQB: VNRX), a life sciences company focused on developing blood-based diagnostic tests, today announced that further data analysis from its colorectal cancer study was presented today at the [9th International Conference of Anticancer Research](#), being held October 6-10, 2014 in Sithonia, Greece. The data released comes from an initial representative 938-subject sample of VolitionRx's 4,800-subject colorectal cancer trial, and was presented at the session "Diagnosis and Prognosis of Cancer" at today's conference.

Chief Scientific Officer Dr. Jacob Micallef, Ph.D., presented the latest analysis of the sample from the ongoing, retrospective study taking place at Hvidovre Hospital, Denmark, to evaluate the ability of the Company's NuQ<sup>®</sup> blood-based diagnostic platform to detect colorectal cancers. These findings go beyond the initial topline data recently announced during the Aegis Capital 2014 Healthcare & Technology Conference, which demonstrated that the NuQ<sup>®</sup> diagnostic test detects 84% of colorectal cancers at 78% specificity, and 60% of polyps, in a population aged over 50 years with symptoms indicative of colorectal cancer.

The latest findings include data analysis performed for 830 of the first 938 subjects tested, as analysis was restricted to subjects greater than 50 years of age on whom all the tests were completed. Among the 830 subjects, a total of 59 colorectal cancer cases were identified by colonoscopy, including 35 colon cancer and 24 rectal cancer cases. Of the 59 colorectal cancer cases, the NuQ<sup>®</sup> blood test was able to detect both early (I or II) and late (III or IV) stage cases with high accuracy. The data, as detected by the NuQ<sup>®</sup> test, is summarized in the following table:

	<b>Stage of Colorectal Cancer</b>	<b>Number of Cancer Cases Identified Accurately by NuQ<sup>®</sup> Test</b>	<b>Corresponding Percentage of Cancer Cases Identified Accurately by NuQ<sup>®</sup> Test</b>
	Stage I	6 of 8	75%

Early	Stage II	19 of 20	95%
	Stage III	16 of 20	80%
Late	Stage IV	9 of 11	82%

In addition, the NuQ<sup>®</sup> test was shown to identify the majority of colorectal cancers as being either colon or rectal cancers. This is in addition to, and consistent with, [VolitionRx's previous findings](#) that the NuQ<sup>®</sup> test can distinguish between colorectal cancer and prostate cancer cases.

The NuQ<sup>®</sup> test used to achieve these results was a panel of NuQ<sup>®</sup> assays run on the sample set, each of which identifies and measures a separate nucleosome structure in the blood. Each NuQ<sup>®</sup> panel used a small amount of blood - only 60µL, or approximately one drop, per subject. VolitionRx is continuing to look at different combinations of these assays to analyze the nucleosome structural patterns of pre-cancers and other conditions of the patients from this trial and will release those results when the analysis is completed.

VolitionRx's NuQ<sup>®</sup> tests utilize the Company's proprietary Nucleosomics<sup>®</sup> platform, which identifies and measures circulating nucleosome structures for the presence of epigenetic cancer signals within the blood. As part of the trial, VolitionRx is analyzing samples from approximately 4,800 subjects with colorectal cancer, polyps or adenomas, benign bowel diseases or other malignancies, all of whom have undergone a colonoscopy.

Dr. Micallef commented, "VolitionRx's latest analysis of the initial 938-subject sample provides us with a deeper understanding of the epigenomic signals in cancer. These data show that colon and rectal cancers are distinct diseases, despite their physical proximity. This is very encouraging for the future of Nucleosomics<sup>®</sup> as a wider platform for blood tests in cancer, as there is a strong likelihood that the technology may be able to detect and identify cancer of other major organs. Our next step, in addition to continuing our analysis of the 4,800-subject colorectal cancer trial, is to continue preliminary work on prostate and lung cancers and certain inflammatory conditions, as we begin to broaden our research beyond our core base in colorectal cancer."

Cameron Reynolds, Chief Executive Officer of VolitionRx, added, "These data show that our NuQ<sup>®</sup> test is able to detect colorectal cancer in both the early and late stages of disease with high accuracy. This is good news as early detection leads to early treatment and much better outcomes for patients. In fact, colorectal cancer is one of the more survivable diseases if caught early, as it has an observed five-year survival rate of 74% in stage I, but only 6% in stage IV."

Dr. Micallef outlined the findings in a podium presentation titled "1000 patient study of detection of colorectal cancer and colorectal polyps by serum ELISA of altered epigenetic signatures in circulating cell-free nucleosomes," today at 9:30 a.m. EEST (2:30 a.m. EDT) during session "#61. Diagnosis and Prognosis of Cancer."

In addition to this study, other clinical trials assessing the effectiveness of VolitionRx's assays include:

- A 14,000 patient prospective study into colorectal cancer at Hvidovre Hospital, University of Copenhagen, Denmark
- A 4,000 patient prospective study that involves patients with the 20 most prevalent cancers at University Hospital in Bonn, Germany
- A 250 patient study into colorectal cancer at CHU-UCL Mont Godinne Hospital, Belgium
- A study with MD Anderson, Texas, to establish the efficacy of VolitionRx's NuQ<sup>®</sup> tests to distinguish anaplastic prostate cancer, a particularly aggressive form of the disease, from typical castration resistant prostate cancer (CRPC), the less aggressive form.

## About Colorectal Cancer

Despite the existence of screening programs for the disease, colorectal cancer remains the second leading cause of cancer-related death in the U.S.[i], partly due to the cost, and to low compliance with colonoscopies and other screening methods like fecal tests. Furthermore, colorectal cancer is often found after symptoms appear, which typically only happens with more advanced disease[i]. However, colorectal cancer is one of the more survivable diseases if caught early: it has an observed five-year survival rate of 74% in stage I, but only 6% in stage IV[i]. Many lives could be saved if colorectal cancer were caught earlier. VolitionRx's NuQ<sup>®</sup> test aims to meet this need by detecting colorectal cancer through a simple, accurate, cost-effective, blood test.

[i] American Cancer Society. "Colorectal Cancer," 2014. Available at: <http://www.cancer.org/acs/groups/cid/documents/webcontent/003096-pdf.pdf>

## About the 4,800-Subject Trial at Hvidovre Hospital in Denmark

This representative blinded 938-subject sample (these results were CRC versus no findings on colonoscopy and no comorbidities) was drawn from a 4,800 symptomatic-subject study conducted at Hvidovre Hospital, Copenhagen, Denmark. Samples were collected from 2010 to 2012 from subjects with colorectal cancer, polyps or adenomas, benign bowel diseases or other malignancies, all of whom have undergone a colonoscopy. Under the trial design, VolitionRx has full anonymized access to all Danish national registries and databases. Participants in the study group were all aged over 50; results were age- and gender-adjusted.

## About VolitionRx

VolitionRx is a life sciences company focused on developing blood-based diagnostic tests. The tests are based on the science of Nucleosomics which is the practice of identifying and measuring nucleosomes in the bloodstream - an indication that cancer 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 centred in Belgium as the company focuses on bringing its diagnostic products to market first in Europe, then in the US and ultimately, worldwide.

Visit VolitionRx's website ([www.volitionrx.com](http://www.volitionrx.com)) or connect with us via [Twitter](#), [LinkedIn](#) or [Facebook](#).

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