

NEWS RELEASE

Onco-Innovations' Licensed PNKP Inhibitor Technology Shown to Increase Sensitivity of Cancer Cells to Radiation in Animal Study

Vancouver, Canada – February 10, 2024 – Onco-Innovations Limited (CSE: **ONCO**) (Frankfurt: **W1H**, WKN: **A3EKSZ**) ("**Onco**" or the "**Company**") is pleased to provide information on its exclusive-licensed technology, a new class of Polynucleotide Kinase 3'-Phosphatase (PNKP) inhibitors (the "**Technology**"), which demonstrated promising results in enhancing the sensitivity of cancer cells to radiation in an *in vivo* study¹ (the "**Study**") published in December, 2021, entitled, "Nano-Delivery of a Novel Inhibitor of Polynucleotide Kinase/Phosphatase (PNKP) for Targeted Sensitization of Colorectal Cancer to Radiation-Induced DNA Damage", and carried out by researchers at the University of Alberta, Canada, on tumour-bearing mice. Based on the Study, this Technology has the potential to enhance the landscape of targeted cancer treatments, allowing for more effective therapies that could potentially enhance patient outcomes.

The Study demonstrated that Onco's Technology increased the sensitivity of PTEN-deficient cancer cells to radiation in tumour-bearing mice using HCT116 colorectal cancer (CRC) models to a statistically significant degree compared to radiation alone. PTEN is a crucial tumour suppressor gene that helps regulate cell growth. When PTEN is mutated or lost, as it often is in cancer cells, these cells become more prone to uncontrolled growth and are less able to repair damage.² By inhibiting PNKP, which is involved in DNA repair, the Technology was shown in the study to weaken the cancer cells' ability to recover from radiation, making them more vulnerable to treatment. This suggests that further testing is worthwhile to explore whether lower doses of radiation could be used in conjunction with the Technology to achieve similar therapeutic effects with the potential benefit of reducing side effects and minimizing harm to healthy tissue.

Furthermore, the Study explored the broader implications of this approach. By selectively targeting PNKP in PTEN-deficient cells, the Technology aims to focus on the cancer cells' unique vulnerabilities while sparing normal, healthy cells. This strategy is aimed at developing a more precise and effective way to destroy tumours with less collateral damage, leveraging the weaknesses that arise when both PTEN and PNKP functions are disrupted in cancer cells.

"This Study demonstrated that our Technology has the potential to enhance the effectiveness of radiation therapy specifically in PTEN-deficient tumours; we are accordingly excited to continue pursuing studies toward our mission of paving the way for more targeted and less toxic treatment options and moving Onco towards its goal of becoming a leader in oncology. We are most excited about the future possibilities this Technology holds for improving patient outcomes," said Thomas O'Shaughnessy, CEO of the Company.

¹ "Nano-Delivery of a Novel Inhibitor of Polynucleotide Kinase/Phosphatase (PNKP) for Targeted Sensitization of Colorectal Cancer to Radiation-Induced DNA Damage" in [Frontiers in Oncology 11:772920](https://doi.org/10.3389/fonc.2021.772920)

² National Library of Medicine. *PTEN Gene (Phosphatase and Tensin Homolog)*. MedlinePlus, U.S. National Library of Medicine, <https://medlineplus.gov/genetics/gene/pten/>.

About Colorectal Cancer (CRC):

Colorectal cancer (“CRC”) is the third most common cancer in Canada³ and the third most common cause of cancer-related death in both men and women in the United States.⁴ It is the leading cause of cancer death among men under 50 and ranks second overall in cancer-related deaths.⁵ The global incidence of CRC is expected to reach 3.2 million new cases by 2040, driven by aging populations, growth, and development.⁶ In the United States, over half (55%) of CRC cases are linked to lifestyle factors, including poor diet, lack of exercise, excessive alcohol consumption, and smoking.⁷ In Canada, approximately 26,300 new cases of CRC were reported in 2019, with 9,500 deaths attributed to the disease, indicating a shift towards diagnoses at more advanced stages.⁸

The Company also announces that, it has engaged the services of Venture Liquidity Providers Inc. (business address: 1 McGuire Cres. Uxbridge, Ontario, Canada, L9P 1G7, email: info@vlpinc.net, website: www.vlpinc.net, telephone: +1 416-891-4349; and contact: John (JC) Cunningham) (“VLP”) to provide market making services, commencing immediately. Under its engagement, VLP will trade common shares of the Company on the Canadian Securities Exchange, and all other trading venues on which the Company’s securities may be traded, with the objective of maintaining a reasonable market for the Company's common shares.

Under the terms of the engagement, VLP will receive compensation of CAD\$5,000 per month, with payment for the initial three (3) months made in advance. The agreement shall continue in force for a period of three (3) months and will automatically renew for successive additional one-month terms unless otherwise terminated in accordance with this agreement. Either party may terminate the agreement with written notice after the initial three-month term. Upon termination, any of the Issuer's prepaid monthly fees in VLP's possession for months in which no trading has occurred will be refunded within 15 business days.

There are no performance factors contained in the engagement and VLP will not receive shares or options as compensation.

About Onco-Innovations Limited

Onco-Innovations is a Canadian-based company dedicated to cancer research and treatment, specializing in oncology. Onco’s mission is to prevent and cure cancer through pioneering research and innovative solutions. The company has secured an exclusive worldwide license to patented technology that targets solid tumours, setting new standards in cancer treatment. Onco’s commitment to excellence and innovation drives it to develop advanced therapies that improve patient outcomes and offer hope in the fight against cancer.

ON BEHALF OF ONCO-INNOVATIONS LIMITED,

“Thomas O’Shaughnessy”

Chief Executive Officer

For more information, please contact:

³ [Colorectal cancer in Canada - Canada.ca](http://Canada.ca)

⁴ [Colorectal cancer statistics, 2023 \(wiley.com\)](http://wiley.com) at page 234.

⁵ [Colorectal Cancer Facts & Figures 2023](http://wiley.com) at page 2.

⁶ [Global colorectal cancer burden in 2020 and projections to 2040 \(nih.gov\)](http://nih.gov) at page 1.

⁷ [Global colorectal cancer burden in 2020 and projections to 2040 \(nih.gov\)](http://nih.gov) at page 3.

⁸ [Colorectal Cancer - Canada.ca](http://Canada.ca)

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The CSE and Information Service Provider have not reviewed and do not accept responsibility for the accuracy or adequacy of this release.

Forward-Looking Statements Caution. This news release contains forward-looking statements relating to the further development, potential commercialization and benefits of the Technology, the Company's ability to submit and complete U.S. FDA trials, the ability of VLP to create and maintain a reasonable market for trading of the Company's shares, and the prospects of the Company, and the Company's business and plans generally, and other statements that are not historical facts. Forward-looking statements are often identified by terms such as "will", "may", "potential", "should", "anticipate", "expects" and similar expressions. All statements other than statements of historical fact, included in this release are forward-looking statements that involve risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations include the failure to further develop, prove out or commercialize the Technology, the failure to complete U.S. FDA clinical trials, the failure to receive regulatory approval in respect of the Technology, the failure of VLP to create or maintain a reasonable market for trading of the Company's shares, and other risks detailed from time to time in the filings made by the Company with securities regulators. The reader is cautioned that assumptions used in the preparation of any forward-looking information may prove to be incorrect. Events or circumstances may cause actual results to differ materially from those predicted, as a result of numerous known and unknown risks, uncertainties, and other factors, many of which are beyond the control of the Company. The reader is cautioned not to place undue reliance on any forward-looking information. Such information, although considered reasonable by management at the time of preparation, may prove to be incorrect and actual results may differ materially from those anticipated. Forward-looking statements contained in this news release are expressly qualified by this cautionary statement. The forward-looking statements contained in this news release are made as of the date of this news release and the Company will update or revise publicly any of the included forward-looking statements as expressly required by applicable law.