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Oncolytics Biotech® Announces Collaboration Between Merck and Northwestern University Combining Keytruda® and REOLYSIN® in a Phase 2 Second Line Pancreatic Cancer Study

CALGARY, Alberta and SAN DIEGO, May 17, 2018 (GLOBE NEWSWIRE) -- Oncolytics Biotech® Inc. (TSX:ONC) (OTCQX:ONCYF), currently developing REOLYSIN® (pelareorep), an intravenously delivered immuno-oncolytic virus turning cold tumors hot, today announced an investigator sponsored study (IST) supported by Merck Inc. (Merck), Northwestern University (Northwestern) and Oncolytics. This study is an extension of the previously reported phase 1 study (REO 024) that will investigate pelareorep in combination with Merck's anti-PD1 checkpoint inhibitor Keytruda®, to treat second line pancreatic cancer patients. The study, run by the principal investigator of REO 024, Dr. Devalingam Mahalingam, will plan to enroll approximately 40 patients with advanced pancreatic cancer and will be conducted at the Robert H. Lurie Comprehensive Cancer Center of Northwestern University.

"This study using Merck's Keytruda is our second I-O combination in human trials after our multiple myeloma study in combination with Celgene's Imnovid and Revlimid," said Dr. Matt Coffey, President and CEO of Oncolytics Biotech. "We're very happy with Merck's increased involvement in our pancreatic studies and believe combining pelareorep with Keytruda poses an exciting opportunity to lay additional groundwork towards our ultimate goal – to expand the use of check point inhibitors as anti-cancer agents by promoting an inflamed phenotype in the tumor, or turning cold tumors hot."

"REO 024, a phase 1b study combining pelareorep and Keytruda in second line pancreatic patients, was designed to evaluate safety and tolerability of the combination," said Dr. Mahalingam, Associate Professor of Medicine (Hematology and Oncology), Northwestern University Feinberg School of Medicine. "The results from that study demonstrated that the combination is safe, but also that there was early evidence of clinical activity, including one patient that had a partial response lasting 17.4 months and two with stable disease of 126 days and 277 days. This new phase two study will enroll patients with advanced pancreatic cancer failing front line chemotherapy and will primarily evaluate overall response rate of the combination therapy. The study will also provide important biomarker data determined by analysis of pre- and post-treatment biopsies and blood-based immune markers."

Final study design and other details will be announced upon enrollment of the first patient, expected in the third quarter 2018.

About REOLYSIN/Pelareorep

REOLYSIN, also known as pelareorep, is a non-pathogenic, proprietary isolate of the unmodified reovirus: a first-in-class intravenously delivered immuno-oncolytic virus for the treatment of solid tumors and hematological malignancies. The compound induces selective tumor lysis and promotes an inflamed tumor phenotype through innate and adaptive immune responses to treat a variety of cancers.

About Oncolytics Biotech Inc.

Oncolytics is a biotechnology company developing REOLYSIN®, also known as pelareorep, an intravenously delivered immuno-oncolytic virus. The compound induces selective tumor lysis and promotes an inflamed tumor phenotype -- turning "cold" tumors "hot" -- through innate and adaptive immune responses to treat a variety of cancers. Oncolytics' clinical development program emphasizes three pillars: chemotherapy combinations to trigger selective tumor lysis and immuno-therapy and immune modulator (IMiD) combinations to produce innate and adaptive immune responses. Oncolytics is currently planning its first registration study in metastatic breast cancer, as well as studies in combination with checkpoint inhibitors and targeted and IMiD therapies in solid and hematological malignancies. For further information, please visit: www.oncolyticsbiotech.com.

This press release contains forward-looking statements, within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended and forward-looking information under applicable Canadian securities laws (such forward-looking statements and forward-looking information are collectively referred to herein as "forward-looking statements"). Forward-looking statements, including the Company's belief as to the potential and mode of

action of REOLYSIN, also known as pelareorep, as a cancer therapeutic; and other statements related to anticipated developments in the Company's business and technologies involve known and unknown risks and uncertainties, which could cause the Company's actual results to differ materially from those in the forward-looking statements. Such risks and uncertainties include, among others, the availability of funds and resources to pursue research and development projects, the efficacy of pelareorep as a cancer treatment, the success and timely completion of clinical studies and trials, the Company's ability to successfully commercialize pelareorep, uncertainties related to the research and development of pharmaceuticals, uncertainties related to the regulatory process and general changes to the economic environment. Investors should consult the Company's quarterly and annual filings with the Canadian and U.S. securities commissions for additional information on risks and uncertainties relating to the forward-looking statements. Investors are cautioned against placing undue reliance on forward-looking statements. The Company does not undertake to update these forward-looking statements, except as required by applicable laws.

Company Contact

Michael Moore
Vice President, Investor Relations & Corporate Communications
858-886-7813
mmoore@oncolytics.ca

Investor Relations

Robert Uhl
Westwicke Partners
858-356-5932
robert.uhl@westwicke.com

Media Contact

Jason Spark
Canale Communications
619-849-6005
jason@canalecomm.com



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