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Oncolytics Biotech® Announces First Patient Treated in Phase 2 Study Combining Pelareorep and Keytruda® in Advanced Pancreatic Cancer

CALGARY, Alberta and SAN DIEGO, Nov. 26, 2018 (GLOBE NEWSWIRE) -- Oncolytics Biotech® Inc. (NASDAQ: ONCY) (TSX: ONC), currently developing pelareorep, an intravenously delivered immuno-oncolytic virus, today announced that the first patient was treated in a phase 2 study combining pelareorep with Merck's Keytruda® to treat advanced pancreatic adenocarcinoma. The primary objective of the study is to determine the overall response rate (ORR) by iRECIST criteria. Secondary objectives include safety of the combination, immune response as determined by analysis of pre- and post-treatment biopsies and blood-based immune markers, determination of progression-free survival (PFS) by iRECIST criteria; and one-year, two-year and median overall survival (OS).

"We are very excited to start enrollment in this combination study which expands upon our findings from an earlier Keytruda study in advanced pancreatic cancer," said Dr. Matt Coffey, President and Chief Executive Officer of Oncolytics Biotech. "REO 024, our previous phase 1b study with Keytruda, showed objective response, long-term stabilization of disease and promotion of an inflamed phenotype in second line pancreatic cancer patients. This new phase two study should corroborate anti-tumor activity and potentially confirm predictive biomarkers laying the groundwork towards our goal of becoming a standardized backbone for checkpoint inhibitors."

This study is a phase 2, single arm, open-label study enrolling up to 30 patients with advanced pancreatic adenocarcinoma who experienced disease progression or did not tolerate first-line therapy. The principal investigator is Dr. Devalingham Mahalingam, of Northwestern University. The first 16 patients will be enrolled in stage one, and up to 14 additional patients will be enrolled in stage two if pre-specified criteria are met. The pre-defined criteria state that, for the primary objective, three or more responses out of 16 are needed in stage one to continue the trial to the full 30 patients.

For more information about the study, including a comprehensive list of inclusion and exclusion criteria, please visit: www.clinicaltrials.gov (identifier: NCT03723915).

About Pelareorep

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 and has been demonstrated to be able to escape neutralizing antibodies found in patients.

About Oncolytics Biotech Inc.

Oncolytics is a biotechnology company developing 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 conducting and planning additional studies in combination with checkpoint inhibitors and targeted and IMiD therapies in solid and hematological malignancies, as it prepares for a phase 3 registration study in metastatic breast cancer. 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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