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Oncolytics Biotech® Inc. Enters into First-in-Class Collaboration with Myeloma UK and Celgene Using REOLYSIN® in Combination with Imnovid® or Revlimid® in Patients with Myeloma

CALGARY, March 16, 2017 /PRNewswire/ - Oncolytics Biotech® Inc. (Oncolytics or the Company) (TSX:ONC) (OTCQX:ONCYF) today announced that cancer charity Myeloma UK launched MUK *e/even*, a first-of-its-kind immunotherapy trial that aims to modulate the immune system to target myeloma. The Phase 1b trial will study immuno-viral therapy, REOLYSIN® (pelareorep), in combination with Celgene Corporation's immunomodulatory drugs (IMiDs), Imnovid® (pomalidomide) or Revlimid® (lenalidomide), as a rescue treatment in relapsing myeloma patients.

"This trial, the first of its kind, is a novel way of activating a patient's own immune system to target their myeloma (immunotherapy) using a natural virus and lenalidomide or pomalidomide, which could offer a new treatment strategy in myeloma," said MUK *e/even* Chief Investigator Gordon Cook, Consultant Haematologist at Leeds Teaching Hospitals Trust.

In MUK *e/even*, REOLYSIN will be combined with Celgene's Imnovid® or Revlimid® in patients whose myeloma is progressing while on these IMiD treatments. The dose escalation trial will look at the safety and tolerability of these combinations, and will investigate whether the addition of REOLYSIN extends disease control in this patient group.

Dr. Adrian Kilcoyne, Celgene UK and Ireland Medical Director adds, "Celgene is delighted to be involved in this research with the Institute of Cancer Research, the University of Leeds, Myeloma UK and Oncolytics Biotech Inc. We are committed to bold pursuits in science and this is evidence of how strong collaboration between academia, patient groups and industry can drive important scientific advances for patients."

This clinical study expands on earlier pre-clinical work by Professor Cook that demonstrates that REOLYSIN has dual modes of action against multiple myeloma; being both directly cytotoxic and also activating immune effector cells to target and destroy cancer cells. Further, this immune-mediated activity can be enhanced by immunomodulatory agents to eliminate disease.

"This is an important collaboration for Oncolytics, as testing IMiD combinations with REOLYSIN is one of the three pillars of our clinical development plan," said Dr. Matt Coffey, President and CEO of Oncolytics. "We are eager to find out if REOLYSIN can enhance the

benefits of these immune modulators and we are excited to start working with Myeloma UK and Celgene."

The trial will aim to recruit 44 patients across up to six Myeloma UK Clinical Trial Network centres in the UK. MUK *eleven* is part of the Myeloma UK Clinical Trial Network, a portfolio of early stage trials coordinated by the Clinical Trials Research Unit at the University of Leeds, focused on testing and speeding up access to promising new treatments for patients.

"We focus on strategic, collaborative and innovative approaches to delivering trials and treatments to patients," said Myeloma UK Director of Research Dr. Simon Ridley. "Our Clinical Trial Network is focused on ensuring that patients now, and in the future, are getting access to the exciting new treatment combinations we are seeing coming down the line, and so we are pleased to launch this novel trial which focuses on a pivotal area of myeloma research."

Oncolytics and Celgene UK & Ireland are providing their respective products for MUK eleven: Oncolytics Biotech Inc. is providing REOLYSIN and Celgene UK & Ireland is providing Imnovid[®] and Revlimid[®].

Myeloma UK

Myeloma UK is the only organisation in the UK dealing exclusively with myeloma, a cancer for which there is no cure, but many very effective treatments. The charity's broad and innovative range of services cover every aspect of myeloma from providing information and support, to improving standards of treatment and care through research, education, campaigning and raising awareness. Myeloma UK is passionate and dedicated about what it does and is committed to improving patient outcomes. The organisation receives no government funding and relies almost entirely on voluntary donations and fundraising activities.

For more information visit www.myeloma.org.uk.

University of Leeds

The University of Leeds is one of the largest higher education institutions in the UK, with more than 31,000 students from 147 different countries, and a member of the Russell Group research-intensive universities.

We are a top 10 university for research and impact power in the UK, according to the 2014 Research Excellence Framework, and positioned as one of the top 100 best universities in the world in the 2015 QS World University Rankings. We are The Times and The Sunday Times University of the Year 2017 www.leeds.ac.uk.

About Oncolytics Biotech Inc.

Oncolytics is a biotechnology company developing REOLYSIN, an immuno-oncology viral-agent, as a potential treatment for a variety of tumor types. The compound induces selective tumor lysis and promotes an inflamed tumor phenotype 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; immuno-therapy combinations to produce adaptive immune responses; and immune modulator (IMiD) combinations to facilitate innate immune responses. For further information about Oncolytics, 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. Forward-looking statements, including the Company's belief as to the potential of REOLYSIN as a cancer therapeutic; the Company's expectations as to the success of its research and development programs in 2017 and beyond, the Company's planned operations, the value of the additional patents and intellectual property; the Company's expectations related to the applications of the patented technology; the Company's expectations as to adequacy of its existing capital resources; the design, timing, success of planned clinical trial programs; 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 REOLYSIN as a cancer treatment, the success and timely completion of clinical studies and trials, the Company's ability to successfully commercialize REOLYSIN, 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.

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