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Oncolytics Biotech® Inc. Announces Positive Final Tumour Response Data for U.S. Phase 2 Study of REOLYSIN® in Squamous Cell Lung Cancer

CALGARY, Sept. 9, 2013 /PRNewswire/ - Oncolytics Biotech Inc. ("Oncolytics") (TSX:ONC) (NASDAQ:ONCY) today announced final tumour response data from its U.S. Phase 2 single arm clinical trial in patients with squamous cell carcinoma of the lung (SCCLC) using intravenous administration of REOLYSIN in combination with carboplatin and paclitaxel (REO 021).

The analysis examined percent best overall tumour responses between pre-treatment and up to six treatment cycles. Of 25 evaluable patients who had more than one cycle of therapy, 23 (92%) exhibited overall tumour shrinkage (mean shrinkage was 32.7%). Of the 25 evaluable patients, 10 (40%) had partial responses (PRs), while a further 13 (52%) showed stable disease (SD) and two (8%), had progressive disease (PD), for a disease control rate (complete response (CR) + PR + SD) of 92%. A waterfall graph showing individual patient data will be available on the Company's website at http://www.oncolyticsbiotech.com/presentations.

"We are thrilled to have demonstrated 92% overall tumour shrinkage in this group of patients," said Dr. Brad Thompson, President and CEO of Oncolytics. "Squamous cell carcinoma of the lung is notoriously difficult to treat, and these results support further investigation of REOLYSIN in randomized clinical trials for this indication."

The study enrolled patients with metastatic stage IIIB or stage IV, or recurrent, squamous cell carcinoma of the lung, who were chemotherapy-naïve for their metastatic or recurrent cancer. The primary objective of the trial is to evaluate the patients' tumour response. The secondary objectives are to assess progression-free survival and overall survival for the treatment regimen in the study population; to determine the proportion of patients receiving the above treatment who were alive and free of disease progression at six months; and to assess the safety and tolerability of the treatment regimen in the study population. Final progression-free survival and safety data for the study will be reported later in 2013.

About Lung Cancer

The American Cancer Society estimates that in 2013, approximately 228,190 new cases of lung cancer will be diagnosed. Between 85% and 90% of all lung cancers are classified as non-small cell lung cancer (NSCLC); squamous cell carcinomas account for 25-30% of all lung cancers. Lung cancer is by far the leading cause of cancer death among both men and women. There will be an estimated 159,480 deaths from lung cancer in the United States in 2013, accounting for around 27% of all cancer deaths. Lung cancer is the leading cause of

cancer death, with more people dying each year of lung cancer than from colon, breast, and prostate cancers combined. For more information about SCC lung cancer, please go to www.cancer.org.

About Oncolytics Biotech Inc.
Oncolytics is a Calgary-based biotechnology company focused on the development of oncolytic viruses as potential cancer therapeutics. Oncolytics' clinical program includes a variety of human trials including a Phase III trial in head and neck cancers using REOLYSIN®, its proprietary formulation of the human reovirus. For further information about Oncolytics, please visit: www.oncolyticsbiotech.com.

This press release contains forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements, including the Company's expectations related to the U.S. Phase II squamous cell carcinoma lung cancer trial, future trials in this indication, and the Company's belief as to the potential of REOLYSIN as a cancer therapeutic, 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 tolerability of REOLYSIN outside a controlled test, the success and timely completion of clinical studies and trials, the Company's ability to successfully commercialize REOLYSIN, uncertainties related to the research, development and manufacturing of pharmaceuticals, changes in technology, general changes to the economic environment and uncertainties related to the regulatory process. 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 should consider statements that include the words "believes", "expects", "anticipates", "intends", "estimates", "plans", "projects", "should", or other expressions that are predictions of or indicate future events or trends, to be uncertain and forward-looking. 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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