October 28, 2013

Oncolytics Biotech® Inc. Collaborators Present Positive Data Correlating Specific Biomarkers with Survival in NSCLC Patients Treated with REOLYSIN®, Carboplatin and Paclitaxel

CALGARY, Oct. 28, 2013 /PRNewswire/ - Oncolytics Biotech Inc. ("Oncolytics") (TSX:ONC) (NASDAQ:ONCY) today announced a poster presentation containing updated efficacy data from a Phase 2 study examining the use of REOLYSIN® in combination with carboplatin and paclitaxel in patients with stage IV non-small cell lung cancer (NSCLC) with *Kras* or EGFR-activated tumors (REO 016) was made at International Association for the Study of Lung Cancer (IASLC). The conference is being held from October 27th to 30th, 2013 in Sydney, Australia.

The poster presentation included new efficacy data that correlated a number of molecular abnormalities with best response, progression free survival (PFS) and one-year survival. Current data in these patients demonstrates that 20 of 36 evaluable patients (56%) survived a year or more. There were 13 patients with only EGFR mutations or amplifications, of whom nine (69.2%) survived a year or longer. Four of four (100%) patients with BRAF and EGFR amplification survived a year or longer.

"This is the first time we have reported data correlating the presence of specific biomarkers with efficacy, which covers both best response and survival in patient tumours with a Ras-activated pathway," said Dr. Brad Thompson, President and CEO of Oncolytics. "Although the study examined a relatively small number of patients, this data is encouraging, especially in light of a growing focus among healthcare professionals on personalizing cancer treatment based on tumour type. We are taking a closer look at the specific role biomarkers play in a number of our ongoing studies and, based on this data, intend to conduct a randomized trial in this indication."

The chart below summarizes key findings for the 36 evaluable patients:

Molecular Abnormality	Number of patients	Best Response	Number progression free at six months	Number surviving one year
BRAF mutation, EGFR amplification	4	2 PR, 1 SD, 1 PD	2	4
EGFR amplification	10	5 PR, 5 SD	4	7
EGFR mutation, EGFR amplification	3	1 PR, 1 SD, 1 PD	1	2
KRAS	12	3 PR, 8 SD	6	4
KRAS, EGFR amplification	7	6 SD, 1 PD	1	3
Total	36	11 PR, 11 SD (30% response rate)	14 (38%)	20 (56%)

Partial response (PR), stable disease (SD), progressive disease (PD)

Patients received REOLYSIN (3 x 10^{10} $TCID_{50}$) intravenously daily on days one to five, in combination with paclitaxel at initial doses of paclitaxel 175 mg/m^2 and carboplatin AUC 5, on day one of each 21-day cycle. Overall, 37 patients received 209 cycles (per patient median four, range one to 18). The study treatment was found to be well tolerated.

The Company's collaborators also presented a poster on results from the Company's 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). This is the same poster that was previously presented on October 22, 2013 at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics conference held in Boston, MA.

Conference Call Details
Dr. Brad Thompson, President and CEO of Oncolytics, will host a conference call and webcast on Monday, October 28, 2013 at 6:00 a.m. MT (8:00 a.m. ET) to discuss in more depth the Company's lung cancer program. To access the conference call by telephone, dial 1-888-231-8191 or 1-647-427-7450. A live audio webcast will also be available at the following link: http://www.newswire.ca/en/webcast/detail/1248341/1375429 or through the Company's website at www.oncolyticsbiotech.com/presentations. Please connect at least 10 minutes prior to the webcast to ensure adequate time for any software download that may be needed. A replay of the webcast will be available at www.oncolyticsbiotech.com/presentations and will also be available by telephone through November 4, 2013. To access the telephone replay, dial 1-416-849-0833 or 1-855-859-2056 and enter reservation number 92453959 followed by the number sign.

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 non-small cell lung cancer trial, the U.S. Phase II squamous cell carcinoma lung cancer trial, future trials in these indications, 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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