

December 23, 2010



Oncolytics Biotech® Inc. Accelerates Warrant Expiry Date

CALGARY, Dec. 23 /PRNewswire/ - Oncolytics Biotech Inc. ("Oncolytics" or the "Corporation") (TSX:ONC; NASDAQ:ONCY) today announced, that in accordance with the terms of the warrant indenture for the warrants issued by the Corporation on November 23, 2009, the Corporation has provided the required written notice to holders of such warrants that the expiry date has been accelerated to the close of business on Monday January 24, 2011.

Under the terms of the warrant indenture, if the 10-day volume-weighted average trading price of the common shares of Oncolytics (the "Common Shares") on the Toronto Stock Exchange exceeds the Canadian dollar equivalent (based on the Bank of Canada noon spot rate on the final day of the 10-day period) of US\$6.50 per Common Share, then, at any date subsequent to this date, at the Corporation's sole discretion and upon the Corporation sending the holder written notice of such accelerated exercise date and issuing a news release announcing such accelerated exercise date, the expiry date of the warrant shall be the day that is 30 days following the later of (i) the date on which such notice is sent to the holder; and (ii) the date on which such announcement is made by news release. As of the close of business on December 23, 2010, the 10-day volume-weighted average trading price of the Common Shares exceeded the Canadian dollar equivalent of US\$6.50. Warrants may be exercised through payment of the exercise amount of US\$3.50 per whole warrant up to 4:30 P.M. Calgary time on January 24, 2011.

If all of the warrants subject to this acceleration are exercised, Oncolytics will receive proceeds of approximately US\$6.75 million. Any warrants not exercised prior to the accelerated expiry date and time will expire without any further action being taken.

The common shares underlying the warrants are being offered in the United States pursuant to a prospectus supplement to Oncolytics' effective Form F-10 shelf registration statement (File # 333-167250) previously filed with the United States Securities and Exchange Commission on June 10, 2010, pursuant to the United States Securities Act of 1933, as amended. Copies of the prospectus supplement and accompanying base prospectus relating to the offering may be obtained from the Securities and Exchange Commission website at <http://www.sec.gov>, or from the Corporation using the contact information provided below.

This press release does not and shall not constitute an offer to sell or the solicitation of an offer to buy any of the securities, nor shall there be any sale of the securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any state or jurisdiction.

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. Forward-looking statements, including the amount of proceeds that could be received by the Corporation pursuant to the exercise of warrants, the Corporation's expectations as to progress in the clinical trial program and the Corporation's belief as to the potential of REOLYSIN as a cancer therapeutic, involve known and unknown risks and uncertainties, which could cause the Corporation'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 Corporation'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 Corporation's quarterly and annual filings with the Canadian 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 Corporation does not undertake to update these forward-looking statements, except as may be required pursuant to applicable securities laws.

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