

August 3, 2017



Oncolytics Biotech® Inc. Announces 2017 Second Quarter Results

CALGARY and SAN DIEGO, CA, Aug. 3, 2017 /PRNewswire/ - Oncolytics Biotech® Inc. (Oncolytics or the Company) (TSX:ONC) (OTCQX:ONCYF) today announced its financial results and operational highlights for the quarter ended June 30, 2017.

"After selecting metastatic breast cancer as our registration pathway for REOLYSIN® and announcing statistically significant clinical data in this indication in the second quarter, obtaining Fast Track designation was a key development as we prepare for our End-of-Phase 2 meeting with the FDA," said Dr. Matt Coffey, President and CEO of Oncolytics Biotech. "We expect to receive guidance from the FDA that will help form the basis of our Phase 3 registration study and expect to announce the outcome of our filings in the fourth quarter. In parallel, we will continue to pursue additional clinical collaborations to study REOLYSIN's therapeutic potential in combination with other immunotherapies as part of our previously announced clinical development plan."

Selected Highlights from Q2 and through the end of July 2017

Clinical Updates

- Announced that the United States Food and Drug Administration (FDA) granted Fast Track designation for REOLYSIN, also known as pelareorep, for the treatment of metastatic breast cancer (mBC). The designation is based on the data from IND 213, an open-label, randomized, phase 2 study to assess the therapeutic combination of intravenously-administered REOLYSIN and paclitaxel. Results showed a statistically significant improvement in median overall survival (OS) from 10.4 months in the control arm to 17.4 months in the test arm.
- Announced a registration pathway and clinical development plan with the primary objective of obtaining regulatory approval for REOLYSIN based on compelling mBC survival data from IND 213. The plan's secondary objective is expanding REOLYSIN into commercially valuable new treatment areas, including immunotherapy and immunomodulatory (IMiD) agents, in collaboration with pharmaceutical partners.
- Presented at the American Society of Clinical Oncology (ASCO) Annual Meeting preliminary results of REO 024, an open-label phase 1b trial of patients with histologically confirmed metastatic adenocarcinoma of the pancreas (MAP) who have failed, or did not tolerate, first-line treatment. The study was designed to assess the safety (primary endpoint) and dose-limiting toxicity of REOLYSIN in combination with pembrolizumab (KEYTRUDA®) and chemotherapy. Investigators concluded that the combination therapy showed manageable safety profiles and anti-tumour activity in previously treated MAP patients.

Corporate Updates

- Closed an underwritten public share offering of 16,445,000 units at a purchase price of \$0.70 for gross proceeds of approximately \$11.5 million (\$10.4 million net). Proceeds are to be used to prepare for a Phase 3 registration study in mBC, to expand partnering activities and for general corporate purposes.
- Appointed Andrew de Guttadauro as President of its US subsidiary, Oncolytics Biotech (U.S.) Inc., who will primarily be responsible for pursuing both global and regional licensing, partnership and commercialization opportunities for REOLYSIN.

- Opened San Diego office to support business development, clinical operations and investor relations activities.

Anticipated Milestones

- Summer 2017: End-of-Phase 2 meeting in August
- Third quarter 2017: First patient enrollment in our multiple myeloma collaboration with Celgene and Myeloma UK
- Fourth quarter 2017: Results from regulatory filings
- First half of 2018: Update on our exploration of strategic and regional alliances

Q2 2017 Financial Results

- At June 30, 2017, the Company reported \$16.7 million in cash and cash equivalents. Cash runway expected to the end of 2018.
- As at August 2, 2017, the Company had an unlimited number of authorized common shares with 139,426,222 common shares issued and outstanding, 7,532,827 options outstanding (with exercise prices ranging between \$0.26 and \$6.72 and expiry dates ranging from 2017 to 2027), 16,445,000 warrants outstanding (with a \$0.95 strike price expiring in June 2022) and 2,370,388 RSU's and PSU's outstanding.

ONCOLYTICS BIOTECH INC.
INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(unaudited)

	June 30, 2017 \$	December 31, 2016 \$
Assets		
Current assets		
Cash and cash equivalents	16,676,298	12,034,282
Short-term investments	—	2,088,800
Accounts receivable	62,109	54,406
Prepaid expenses	485,075	260,841
Total current assets	17,223,482	14,438,329
Non-current assets		
Property and equipment	355,309	319,955
Total non-current assets	355,309	319,955
Total assets	17,578,791	14,758,284
Liabilities And Shareholders' Equity		
Current Liabilities		
Accounts payable and accrued liabilities	3,310,948	4,068,664
Total current liabilities	3,310,948	4,068,664
Shareholders' equity		
Share capital		
Authorized: unlimited		
Issued:		
June 30, 2017 – 139,231,722		
December 31, 2016 – 121,258,222	270,091,373	262,321,825
Warrants	3,617,900	—
Contributed surplus	26,766,168	26,643,044
Accumulated other comprehensive loss	488,572	554,060
Accumulated deficit	(286,696,170)	(278,829,309)
Total shareholders' equity	14,267,843	10,689,620

Total liabilities and equity	17,578,791	14,758,284
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ONCOLYTICS BIOTECH INC.
INTERIM CONSOLIDATED STATEMENTS OF LOSS AND COMPREHENSIVE LOSS
(unaudited)

	Three Month Period Ending June 30, 2017 \$	Three Month Period Ending June 30, 2016 \$	Six Month Period Ending June 30, 2017 \$	Six Month Period Ending June 30, 2016 \$
Expenses				
Research and development	2,918,673	1,490,956	5,186,744	4,217,085
Operating	1,444,543	1,125,458	2,744,843	2,485,870
Operating loss	(4,363,216)	(2,616,414)	(7,931,587)	(6,702,955)
Interest income	14,163	35,537	64,878	105,158
Loss before income taxes	(4,349,053)	(2,580,877)	(7,866,709)	(6,597,797)
Income tax (recovery) expense	(89)	169	(152)	314
Net loss	(4,349,142)	(2,580,708)	(7,866,861)	(6,597,483)
Other comprehensive income items that may be reclassified to net loss				
Translation adjustment	(44,740)	(130,827)	(65,488)	(300,886)
Net comprehensive loss	(4,393,882)	(2,711,535)	(7,932,349)	(6,898,369)
Basic and diluted loss per common share	(0.03)	(0.02)	(0.06)	(0.06)
Weighted average number of shares (basic and diluted)	127,349,643	119,601,638	124,320,760	118,900,812

ONCOLYTICS BIOTECH INC.
INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(unaudited)

	Share Capital \$	Warrants \$	Contributed Surplus \$	Accumulated Other Comprehensive Loss \$	Accumulated Deficit \$	Total \$
As at December 31, 2015	261,324,692	—	26,277,966	760,978	(263,689,330)	24,674,306
Net loss and comprehensive loss	—	—	—	(300,886)	(6,597,483)	(6,898,369)
Issued pursuant to "At the Market" Agreement	1,078,193	—	—	—	—	1,078,193
Issued pursuant to incentive share award plan	41,000	—	(41,000)	—	—	—
Share issue costs	(468,363)	—	—	—	—	(468,363)
Share based compensation	—	—	201,266	—	—	201,266
As at June 30, 2016	261,975,522	—	26,438,232	460,092	(270,286,813)	18,587,033

	Share Capital \$	Warrants \$	Contributed Surplus \$	Accumulated Other Comprehensive Loss \$	Accumulated Deficit \$	Total \$
As at December 31, 2016	262,321,825	—	26,643,044	554,060	(278,829,309)	10,689,620
Net loss and comprehensive loss	—	—	—	(65,488)	(7,866,861)	(7,932,349)
Issued pursuant to "At the Market" agreement	668,648	—	—	—	—	668,648
Issued pursuant to public offering	7,893,600	3,617,900	—	—	—	11,511,500
Issued pursuant to stock option plan	461,823	—	(166,473)	—	—	295,350
Share issue costs	(1,254,523)	—	—	—	—	(1,254,523)
Share based compensation	—	—	289,597	—	—	289,597
As at June 30, 2017	270,091,373	3,617,900	26,766,168	488,572	(286,696,170)	14,267,843

ONCOLYTICS BIOTECH INC.
INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

	Three Month Period Ending June 30, 2017 \$	Three Month Period Ending June 30, 2016 \$	Six Month Period Ending June 30, 2017 \$	Six Month Period Ending June 30, 2016 \$
Operating Activities				
Net loss for the period	(4,349,142)	(2,580,708)	(7,866,861)	(6,597,483)
Amortization - property and equipment	25,688	44,675	49,724	90,617
Share based compensation	155,708	119,626	289,597	201,266
Unrealized foreign exchange gain	(164,676)	(243,914)	(112,644)	(102,619)
Net change in non-cash working capital	(216,906)	37,581	(854,552)	762,236
Cash used in operating activities	(4,549,328)	(2,622,740)	(8,494,736)	(5,645,983)
Investing Activities				
Acquisition of property and equipment	(80,050)	(5,702)	(85,886)	(5,702)
Redemption (purchase) of short-term investments	—	—	2,088,800	(27,823)
Cash used in investing activities	(80,050)	(5,702)	2,002,914	(33,525)
Financing Activities				
Proceeds from "At the Market" equity distribution agreement	570,027	710,374	559,527	609,830
Proceeds from public offering	10,366,098	—	10,366,098	—
Proceeds from exercise of options	295,350	—	295,350	—
Cash provided by financing activities	11,231,475	710,374	11,220,975	609,830
Increase (decrease) in cash	6,602,097	(1,918,068)	4,729,153	(5,069,678)
Cash and cash equivalents, beginning of period	10,102,393	20,233,408	12,034,282	24,016,275
Impact of foreign exchange on cash and cash equivalents	(28,192)	5,641	(87,137)	(625,616)
Cash and cash equivalents, end of period	16,676,298	18,320,981	16,676,298	18,320,981

To view the Company's Fiscal 2017 Second Quarter Consolidated Financial Statements, related Notes to the Consolidated Financial Statements, and Management's Discussion and Analysis, please see the Company's annual filings, which will be available under the Company's profile at www.sedar.com and on Oncolytics' website at <http://www.oncolyticsbiotech.com/investor-centre/financials/>.

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. Oncolytics is currently planning its first registration study in breast cancer, as well as studies in combination with checkpoint inhibitors and IMiD/targeted therapies in solid and hematological malignancies. 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 (pelareorep) 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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