Second Quarter Report

June 30, 2017

Oncolytics Message to Shareholders – Q2 2017

We entered the second quarter of 2017 reporting the most compelling data REOLYSIN® has generated to-date: statistically significant overall survival (OS) data in metastatic breast cancer (mBC) patients. Median OS for patients who received REOLYSIN increased from 10.4 months to 17.4 months compared to patients who did not receive REOLYSIN. We closed an $11.5 million public offering extending our cash runway to the end of 2018. We exited the quarter with a defined clinical development plan, a registration pathway in mBC and Fast Track designation from the United States Food and Drug Administration (FDA). We enter into the third quarter preparing for our End-of-Phase 2 Meeting with the FDA in August.

Clinical data establishes registration pathway

At the end of the first quarter of 2017, we announced significantly improved median overall survival (OS) in a phase 2 trial of advanced or metastatic breast cancer (mBC) patients treated with REOLYSIN – results never before achieved in a randomized trial of any other agent in its class. Shortly after this we announced our clinical development plan focused on combining REOLYSIN with a chemotherapy backbone – initially in mBC – as well as in combination with immuno-oncology drugs (IOs) and immunomodulatory drugs (IMiDs). Our focus on mBC in combination with paclitaxel now sets the stage for REOLYSIN to achieve our primary objective of obtaining regulatory approval as quickly as possible in an underserved market with significant commercial potential.

Evolving understanding of mechanism of action establishes clinical development plan

REOLYSIN is now recognized as a first-in-class immune-oncology viral agent. Our understanding of REOLYSIN's mechanism of action has evolved during the last few years based on multiple randomized phase 2 clinical studies. REOLYSIN's therapeutic profile is consistent with that of approved IOs, where treatment results in an OS benefit, but not progression free survival. This suggests that, in addition to directly lysing, or killing cancer cells, REOLYSIN activates both an innate and adaptive immune response, turning "cold" tumors "hot". The concept of "hot" and "cold" tumors is interesting, as a "cold" tumor is an immunologically barren tumor lacking T-cells and other immune cells. In contrast, a "hot" tumor is heavily invaded by immune cells. Because IOs leverage the immune system, they don't work well in a in cold tumor environment. Therefore, by turning cold tumors hot, REOLYSIN could potentially increase the effectiveness of this entire class of cancer therapeutics.

Based on our evolved understanding of the mechanism of action we identified two additional development pathways to be advanced concurrently with our mBC registration study. The phase 1b MUK *eleven* trial, launched in March 2017, will support the innate immunity component of our clinical development plan by studying REOLYSIN in combination with immunomodulators, Revlimid® and/or Imnovid®, in relapsing myeloma patients. In this case the innate immune response of an increase of Natural Killer (NK) cells could potentially assist the therapeutic effect of these IMiDs. In May 2017, we announced preliminary data for the REO 024 phase 1b trial, which supports the adaptive immunity component of Oncolytics' clinical development plan. The trial assessed the safety of REOLYSIN combined with pembrolizumab (Keytruda®), a PD-1 checkpoint inhibitor, in previously treated pancreatic cancer patients. The preliminary results demonstrated that the combination therapy has manageable safety profiles and anti-tumor activity. These results represent an opportunity to study other checkpoint inhibitor combinations, consistent with the secondary objective of our clinical development plan: to expand clinical collaborations with large pharma to explore new, commercially valuable treatment areas for REOLYSIN.

Fast Track designation for metastatic breast cancer

Perhaps our most significant achievement this quarter was the granting of Fast Track designation by the United States Food and Drug Administration (FDA) of REOLYSIN for the treatment of mBC. The Fast Track designation supports more frequent dialogue with the FDA on our drug development plan, data requirements and clinical trial design. It also, in certain situations, enables the FDA to take action on a new drug or biologics license application more rapidly

than under the standard review process. We intend to leverage this designation to achieve our primary objective of promptly obtaining regulatory approval.

Completion of an $11.5 million offering

In order to fund our clinical development plan, Oncolytics completed a public offering of units on June 1, 2017, which generated total net proceeds of approximately $10.4 million. The funds raised will enable us to effectively plan and prepare for a phase 3 registration study, prepare a regulatory approval strategy for REOLYSIN, as well as support expanded business development and partnering activities.

Looking Ahead

We are diligently preparing for our End-of-Phase 2 meeting with the FDA scheduled in August. The objective of the meeting is to obtain scientific guidance on the registration pathway for REOLYSIN in mBC and we expect to announce the outcome of this meeting in the fourth quarter of 2017. We also expect to announce the enrollment of the first patient in the MUK *eleven* study before the end of the third quarter and a final analysis of REO 024 – studying REOLYSIN in combination with pembrolizumab (Merck's immune checkpoint inhibitor – KEYTRUDA®) and chemotherapy in advanced or metastatic pancreatic adenocarcinoma – is expected by the end of 2017. In parallel, we continue to pursue collaborations to study REOLYSIN/checkpoint inhibitor combinations and our goal of securing a large partnership for the phase 3 mBC study to being next year.

I am proud of the progress we have made in the last six months, and excited as we work toward becoming a late stage, phase 3 biotechnology company. I look forward to updating our stakeholders next quarter as we advance toward this goal.

/s/ Dr. Matt Coffey
President and CEO

MANAGEMENT DISCUSSION & ANALYSIS

June 30, 2017

August 2, 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This discussion and analysis should be read in conjunction with the unaudited consolidated interim financial statements of Oncolytics Biotech Inc.® as at and for the three and six months ended June 30, 2017 and 2016, and should also be read in conjunction with the audited consolidated financial statements and Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") contained in our annual report for the year ended December 31, 2016. The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") and interpretations issued by the International Accounting Standards Board.

FORWARD-LOOKING STATEMENTS

The following discussion contains forward-looking statements, within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended and under applicable Canadian provincial securities legislation. Forward-looking statements, including our belief as to the potential of REOLYSIN®, a therapeutic immuno-oncology agent, as a cancer therapeutic and our expectations as to the success of our research and development and manufacturing programs in 2017 and beyond, future financial position, business strategy and plans for future operations, and statements that are not historical facts, involve known and unknown risks and uncertainties, which could cause our actual results to differ materially from those in the forward-looking statements.

Such risks and uncertainties include, among others, the need for and 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, our ability to successfully commercialize REOLYSIN, uncertainties related to the research, development and manufacturing of REOLYSIN, uncertainties related to competition, changes in technology, the regulatory process and general changes to the economic environment.

With respect to the forward-looking statements made within this MD&A, we have made numerous assumptions regarding among other things: our ability to obtain financing to fund our development program, our ability to receive regulatory approval to commence enrollment in our clinical trial program, the final results of our co-therapy clinical trials, our ability to maintain our supply of REOLYSIN and future expense levels being within our current expectations.

Investors should consult our 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. Forward-looking statements are based on assumptions, projections, estimates and expectations of management at the time such forward-looking statements are made, and such assumptions, projections, estimates and/or expectations could change or prove to be incorrect or inaccurate. Investors are cautioned against placing undue reliance on forward-looking statements. We do not undertake to update these forward-looking statements except as required by applicable law.

REOLYSIN® Development Update For 2017

Oncolytics Biotech Inc. is a Development Stage Company

Since our inception in April of 1998, Oncolytics Biotech® Inc. has been a development stage company and we have focused our research and development efforts on the development of REOLYSIN, our potential cancer therapeutic. We have not been profitable since our inception and expect to continue to incur substantial losses as we continue research and development efforts. We do not expect to generate significant revenues until, if and when, our cancer product becomes commercially viable.

Our goal each year is to advance REOLYSIN through the various steps and stages of development required for potential pharmaceutical products. In order to achieve this goal, we believe that we have to actively manage the development of our clinical trial program, our pre-clinical and collaborative programs, our manufacturing process and REOLYSIN supply, and our intellectual property.

Clinical Trial Program

We are directing our clinical development program with the objective of developing REOLYSIN as a human cancer therapeutic. Our clinical development plan has two main objectives. The primary objective is to obtain regulatory approval for REOLYSIN as quickly as possible and is based on the compelling metastatic breast cancer survival data recently presented at the 2017 American Association for Cancer Research (AACR) Annual Meeting, in Washington, D.C. The second objective is to expand REOLYSIN into commercially valuable new treatment areas that include immuno-therapy and immuno-modulatory (IMiD) agents in collaboration with pharmaceutical partners. Our clinical development program focuses on the three components of REOLYSIN's mechanism of action (MOA) and includes the following three pathways:

Path #1 - Direct Tumour Lysis
To date, our focus has been on the investigation of chemotherapy combination clinical trials investigating the use of different chemotherapy agents in various cancer indications.

Path #2 - Innate Immune Response
Our second pathway focuses on the potential of REOLYSIN to stimulate a patient's innate immunity and the potential for an infection to cause a cascade of chemokines/cytokines activating natural killer (NK) cells to attack cancer cells.

Path #3 - Adaptive Immune Response
Our third pathway focuses on the potential for REOLYSIN to cause a specific adaptive immune response triggered by tumor- and viral-associated antigens displayed by antigen-presenting cells (APCs, infected tumor cells and/or dendritic cells) to T cells.

Second Quarter 2017 Developments:

Path #1 - Direct Tumour Lysis

Metastatic Breast Cancer
On May 8, 2017, we announced that the United States Food and Drug Administration (FDA) granted Fast Track designation for REOLYSIN for the treatment of metastatic breast cancer. This designation represents an important step for our clinical development plan, which is focused on a registration pathway in metastatic breast cancer and advancing REOLYSIN to regulatory review as quickly as possible. The FDA's Fast Track process is designed to facilitate the development, and expedite the review of drugs that treat serious conditions and fill an unmet medical need. Fast Track designation supports more frequent dialogue with the FDA on a company's drug development plan, data requirements and clinical trial design. It also, in certain situations, enables the FDA to take action on a new drug or biologics license application more rapidly than under the standard review process.

In April 2017, data from an open-label, randomized, phase 2 study assessing the therapeutic combination of intravenously-administered REOLYSIN given in combination with the chemotherapy agent paclitaxel versus paclitaxel alone, in patients with advanced or metastatic breast cancer (IND 213) was presented at the AACR Annual Meeting. The combined treatment demonstrated a statistically significant increase in median overall survival in the intention-to-treat patient population from 10.4 months on the control arm to 17.4 months on the test arm (Hazard ratio 0.65, 80% CI 0.47 - 0.91, p-0.1).

Path #2 - Innate Immune Response

The initial activity supporting the innate immunity component of REOLYSIN's MOA, is in collaboration with Celgene and Myeloma UK, a cancer charity. MUK *eleven* was launched in March of 2017: a first of its kind immuno-therapy trial that aims to modulate the immune system to target myeloma. The Phase 1b trial will study REOLYSIN in combination with Celgene's Imnovid® (pomalidomide) or Revlimid® (lenalidomide) as a rescue treatment in relapsing myeloma patients. 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.

The trial will recruit approximately 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, which aims to test and speed up access to promising new treatments for patients. Oncolytics and Celgene UK & Ireland are providing their respective products for MUK *eleven*: Oncolytics is providing REOLYSIN and Celgene UK & Ireland is providing Imnovid® and Revlimid®.

Path #3 - Adaptive Immune Response

In support of the adaptive immunity component of the MOA, we commenced our first checkpoint inhibitor study an open label design to assess the safety and dose-limiting toxicity of REOLYSIN in combination with pembrolizumab (KEYTRUDA®) and chemotherapy in patients with histologically confirmed, advanced or metastatic adenocarcinoma of the pancreas (MAP) who have failed, or did not tolerate, first-line treatment (REO 024).

In June 2017, at the American Society of Clinical Oncology (ASCO) Annual Meeting, we presented safety data from REO 024 expanding our library of clinical data and established REOLYSIN as safe in combination with KEYTRUDA. The study enrolled 11 patients who were given REOLYSIN plus pembrolizumab, along with one of gemcitabine, 5-fluouracil or irinotecan. Grade 1 and 2 treatment emergent adverse events (TEAE) occurred in all patients and Grade 3 and 4 TEAE occurred in eight patients. Three of five efficacy evaluable patients showed a tumor response (secondary endpoint), with one having a partial response (six-month duration) and two having stable disease (lasting 126 and 221 days). Investigators noted that on-treatment biopsies revealed reovirus infection in cancer cells and immune infiltrates and concluded that the combination therapy showed manageable safety profiles and anti-tumour activity in previously treated MAP patients.

Manufacturing and Process Development

During the second quarter of 2017, we supplied our clinical trial program with previously filled and labeled product from our existing supply of REOLYSIN. As well, we continued our validation activities designed to demonstrate that our manufacturing process for the commercial production of REOLYSIN is robust and reproducible as part of a process validation master plan. Process validation is required to ensure that the resulting product meets required specifications and quality standards and will form part of the Company's submission to regulators, including the FDA, for product approval.

Intellectual Property

At the end of the second quarter of 2017, we had been issued over 429 patents including 63 U.S. and 20 Canadian patents as well as issuances in other jurisdictions. We have an extensive patent portfolio covering the oncolytic reovirus that we use in our clinical trial program including a composition of matter patent that expires in 2028. Our patent portfolio also includes methods for treating proliferative disorders using modified adenovirus, HSV, parapoxvirus and vaccinia virus.

Financing Activity

"At-the-Market" equity distribution agreement

On February 26, 2016, we entered into an "at-the-market" equity distribution agreement with Canaccord Genuity Inc. acting as sole agent in Canada (our "Canadian ATM"). Under the terms of our Canadian ATM, we may, from time to time, sell shares of our common stock having an aggregate offering value of up to $4.6 million through Canaccord Genuity Inc. Sales of common shares, if any, pursuant to the Canadian ATM, will be made in transactions that are deemed to be "at-the-market distributions", through the facilities of the Toronto Stock Exchange or other "marketplace" (as defined in National Instrument 21-101 Marketplace Operation) in Canada. We will determine, at our sole discretion, the timing and number of shares to be sold under this ATM facility. During the six month period ending June 30, 2016, we sold 842,000 common shares for gross proceeds of $668,648. We incurred share issue costs of $109,121.

Public offering

On June 1, 2017, pursuant to an underwritten public offering, we sold 16,445,000 units at a purchase price of $0.70 per unit for gross proceeds of $11,511,500. Each unit included one common share and one common share purchase warrant. Each common share purchase warrant entitles the holder to purchase one common share at an exercise price of $0.95 expiring on June 1, 2022. The common share purchase warrants will be subject to acceleration if the volume weighted average price of the Company's common shares equals or exceeds $2.50 for 15 consecutive trading dates. We incurred share issue costs of $1,145,402.

Options

During the second quarter of 2017, we received cash proceeds of $295,350 with respect to the exercise of 686,500 options by former employees.

Financial Impact

We estimated at the beginning of 2017 that our cash requirements to fund our operations for the year would be approximately $12 million. We now expect our cash requirements for 2017 to be between $14 - $16 million and will depend on our ultimate clinical program (see *"Liquidity and Capital Resources"*). Our cash usage for the first half of 2017 was $8,494,736 from operating activities and $85,886 for the acquisition of property and equipment. Our net loss for the six month period ending June 30, 2017 was $7,866,861.

Cash Resources

We exited the second quarter of 2017 with cash and short-term investments totaling $16,676,298 (see *"Liquidity and Capital Resources")*.

REOLYSIN Development for the Remainder of 2017

Initial Registration Path in Metastatic Breast Cancer
During the remainder of 2017, we expect to finalize the development of our registration strategy. We expect to continue our discussions with key opinion leaders and schedule an End-of-Phase 2 Meeting with the FDA in the third quarter of 2017. Our objective for an End-of-Phase 2 meeting is to obtain scientific advice to support our registration pathway. Specific features of any future clinical studies are expected to include: overall survival as a primary endpoint; other exploratory endpoints to identify potential markers of response; and a trial design to ensure a sufficient number of patients are run to reach a statistically significant outcome while balancing the financial resources required.

Additional Clinical Development
We also expect during the remainder of 2017, that we will expand our research collaborations with large pharma in an effort to support further development around the innate and adaptive immunity components of REOLYSIN's MOA. We expect these potential collaborations to include combinations with immunotherapies and IMiDs.

Manufacturing and Intellectual Property
Our 2017 manufacturing program includes continued production of 100-litre cGMP production runs along with the related fill, labeling, packaging and shipping of REOLYSIN to our various clinical sites. We also plan to continue progressing through our process validation master plan and related conformity testing in 2017. Finally, our intellectual property program includes filings for additional patents along with monitoring activities required to protect our patent portfolio.

We currently estimate the cash requirements to fund our operations for 2017 will be between $14 - $16 million, but will depend on our ultimate clinical program (see *"Liquidity and Capital Resources"*).

Second Quarter Results of Operations
(for the three months ended June 30, 2017 and 2016)

Net loss for the three month period ending June 30, 2017 was $4,349,142 compared to $2,580,708 for the three month period ending June 30, 2016.

Research and Development Expenses ("R&D")

	2017 $	2016 $
Clinical trial expenses	**725,358**	626,719
Manufacturing and related process development expenses	**421,468**	104,483
Intellectual property expenditures	**244,495**	127,774
Research collaboration expenses	**55,573**	84,407
Other R&D expenses	**1,488,106**	592,447
Foreign exchange (gain) loss	**(74,597)**	(105,591)
Share based payments	**58,270**	60,717
Research and development expenses	**2,918,673**	1,490,956

Clinical Trial Program

	2017 $	2016 $
Clinical trial expenses	**725,358**	626,719

Our clinical trial expenses were $725,358 for the second quarter of 2017 compared to $626,719 for the second quarter of 2016. During the second quarter of 2017, our clinical trial program focused mainly on the preparation and development of a breast cancer registration study (Path #1 of our Clinical Development Plan). These activities included costs to complete our supporting regulatory documents, regulatory filing fees and key opinion leader activities. During the second quarters of 2017 and 2016, our clinical activities included patient enrollment in our checkpoint inhibitor pancreatic cancer study investigating pembrolizumab (KEYTRUDA®) in combination with REOLYSIN.

Manufacturing & Related Process Development ("M&P")

	2017 $	2016 $
Product manufacturing expenses	**344,328**	10,156
Process development expenses	**77,140**	94,327
Manufacturing and related process development expenses	**421,468**	104,483

Our M&P expenses for the second quarter of 2017 were $421,468 compared to $104,483 for the second quarter of 2016. During the second quarter of 2017, our product manufacturing costs mainly related to shipping and storage costs of our bulk and vialed product. In the second quarter of 2016, these costs were offset by recoveries from a development collaboration.

Our process development expenses for the second quarter of 2017 were $77,140 compared to $94,327 for the second quarter of 2016. During the second quarter of 2017, our process development activities focused on stability studies. During the second quarter of 2016, our activities focused on our validation master plan, which included optimization, validation and stability studies.

Intellectual Property Expenses

	2017 $	2016 $
Intellectual property expenses	**244,495**	127,774

Our intellectual property expenses for the second quarter of 2017 were $244,495 compared to $127,774 for the second quarter of 2016. The change in intellectual property expenditures reflects the timing of filing costs associated with our expanded patent base. At the end of the second quarter of 2017, we had been issued over 429 patents including 63 U.S. and 20 Canadian patents, as well as issuances in other jurisdictions.

Research Collaborations

	2017 $	2016 $
Research collaborations	**55,573**	84,407

Our research collaboration expenses for the second quarter of 2017 were $55,573 compared to $84,407 for the second quarter of 2016. During the second quarters of 2017 and 2016, our research collaborations included biomarker studies along with studies investigating the interaction of the immune system and REOLYSIN.

Other Research and Development Expenses

	2017 $	2016 $
R&D salaries and benefits	**1,393,431**	533,294
Other R&D expenses	**94,675**	59,153
Other research and development expenses	**1,488,106**	592,447

Our Other Research and Development expenses for the second quarter of 2017 were $1,488,106 compared to $592,447 for the second quarter of 2016. The change in our R&D salaries and benefits was mainly due to severance payments to certain officers of the Company who were terminated during the second quarter of 2017. The change in Other R&D expenses was due to an increase in conference attendance and related travel expenses.

Share Based Payments

	2017 $	2016 $
Share based payments	**58,270**	60,717

Share based payments are a result of activity related to our stock option and incentive share award plans. During the second quarter of 2017, our non-cash share based payment expenses were $58,270 compared to $60,717 for the second quarter of 2016. We incurred share based payment expenses associated with the granting of options and the vesting of previously granted stock options and performance share units.

Operating Expenses

	2017 $	2016 $
Public company related expenses	**760,560**	754,876
Office expenses	**560,857**	266,998
Amortization of property and equipment	**25,688**	44,675
Share based payments	**97,438**	58,909
Operating expenses	**1,444,543**	1,125,458

Public company related expenses include costs associated with investor relations, business development and financial advisory activities, legal and accounting fees, corporate insurance, director fees and transfer agent and other fees relating to our U.S. and Canadian stock listings. Our public company related expenses were $760,560 for the second quarter of 2017 compared to $754,876 for the second quarter of 2016. The change in these costs was a result of our change in philosophy regarding investor relations (IR) activities, where we eliminated certain IR services and brought elements in house, which was offset by an increase in business development activities in the second quarter of 2017.

Office expenses include compensation costs (excluding share based payments), office rent and other office related costs. Our office expenses were $560,857 for the second quarter of 2017 compared to $266,998 for the second quarter of 2016. The change

was primarily due to recoveries from a development agreement recognized in the second quarter of 2016 as well as a change in salary levels and increase in headcount in 2017.

During the second quarter of 2017, our non-cash share based payment expenses were $97,438 compared to $58,909 for the second quarter of 2016. We incurred share based payment expenses associated with the granting of restricted share units and the vesting of previously granted stock options, restricted share units and performance share units.

Results of Operations

(for the six month period ending June 30, 2017 and 2016)

Net loss for the six month period ending June 30, 2017 was $7,866,861 compared to $6,597,483 for the six month period ending June 30, 2016.

Research and Development Expenses ("R&D")

	2017 $	2016 $
Clinical trial expenses	**1,411,531**	1,183,943
Manufacturing and related process development expenses	**875,032**	638,002
Intellectual property expenditures	**496,085**	524,138
Research collaboration expenses	**142,952**	138,526
Other R&D expenses	**2,182,241**	1,336,430
Foreign exchange (gain) loss	**(47,200)**	275,726
Share based payments	**126,103**	120,320
Research and development expenses	**5,186,744**	4,217,085

Clinical Trial Program

	2017 $	2016 $
Clinical trial expenses	**1,411,531**	1,183,943

Our clinical trial expenses were $1,411,531 for the six month period ending June 30, 2017 compared to $1,183,943 for the six month period ending June 30, 2016. During the six month period ending June 30, 2017, our clinical trial program focused mainly on the preparation and development of a breast cancer registration study (Path #1 of our Clinical Development Plan). These activities included costs to complete our supporting regulatory documents, regulatory filing fees and key opinion leader activities. During the six month periods ending June 30, 2017 and 2016, our clinical activities included patient enrollment in our checkpoint inhibitor pancreatic cancer study investigating pembrolizumab (KEYTRUDA®) in combination with REOLYSIN.

We still expect our clinical trial expenses to increase in 2017 compared to 2016. In 2017, we expect to finalize our registration path and complete the regulatory filings necessary to support and commence enrollment in a registration study as part of Path #1 of our Clinical Development Plan. As well, we expect to expand Path #2 and Path #3 of our Clinical Development Plan to include both checkpoint inhibitors and IMiDs.

Manufacturing & Related Process Development ("M&P")

	2017 $	2016 $
Product manufacturing expenses	**648,829**	365,191
Process development expenses	**226,203**	272,811
Manufacturing and related process development expenses	**875,032**	638,002

Our M&P expenses for the six month period ending June 30, 2017 were $875,032 compared to $638,002 for the six month period ending June 30, 2016. During the six month periods ending June 30, 2017 and 2016, our product manufacturing activities mainly related to shipping and storage costs of our bulk and vialed product. In 2016, these costs were partly offset by recoveries from a development collaboration.

Our process development expenses for the six month period ending June 30, 2017 were $226,203 compared to $272,811 for the six month period ending June 30, 2016. During the six month period ending June 30, 2017, our process development activities focused on stability studies. During the six month period ending June 30, 2016, our activities focused on our validation master plan, which included optimization, validation and stability studies.

We still expect our M&P expenses for 2017 to increase compared to 2016. In 2017, we expect to fill, label and store sufficient product in preparation for a registration study. We also expect to continue to perform conformity testing related to our process validation master plan.

Intellectual Property Expenses

	2017 $	2016 $
Intellectual property expenses	**496,085**	524,138

Our intellectual property expenses for the six month period ending June 30, 2017 were $496,085 compared to $524,138 for the six month period ending June 30, 2016. The change in intellectual property expenditures reflects the timing of filing costs associated with our expanded patent base. At the end of the first half of 2017, we had been issued over 429 patents including 63 U.S. and 20 Canadian patents, as well as issuances in other jurisdictions. We expect that our intellectual property expenses will remain consistent in 2017 compared to 2016.

Research Collaborations

	2017 $	2016 $
Research collaborations	**142,952**	138,526

Our research collaboration expenses for the six month period ending June 30, 2017 were $142,952 compared to $138,526 for the six month period ending June 30, 2016. During the six month periods ending June 30, 2017 and 2016, our research collaborations included biomarker studies along with studies investigating the interaction of the immune system and REOLYSIN.

We still expect that our research collaborations in 2017 will remain consistent with 2016. We expect to complete our ongoing collaborative program carried over from 2016 and will continue to be selective in the types of new collaborations we enter into in 2017.

Other Research and Development Expenses

	2017 $	2016 $
R&D salaries and benefits	**2,059,249**	1,232,383
Other R&D expenses	**122,992**	104,047
Other research and development expenses	**2,182,241**	1,336,430

Our Other Research and Development expenses for the six month period ending June 30, 2017 were $2,182,241 compared to $1,336,430 for the six month period ending June 30, 2016. The change in our R&D salaries and benefits was mainly due to severance payments to certain officers of the Company who were terminated during the second quarter of 2017. R&D salaries and benefits expense was also impacted by the change in chief executive officers partly offset by the addition of our new chief medical officer in November 2016.

Normalizing for the severance payments, we still expect that our Other Research and Development expenses in 2017 will remain consistent compared to 2016.

Share Based Payments

	2017 $	2016 $
Share based payments	**126,103**	120,320

During the six month period ending June 30, 2017, our non-cash share based payment expenses were $126,103 compared to $120,320 for the six month period ending June 30, 2016. We incurred share based payment expenses associated with the granting of options and the vesting of previously granted stock options and performance share units.

Operating Expenses

	2017 $	2016 $
Public company related expenses	**1,454,935**	1,582,383
Office expenses	**1,076,690**	731,924
Amortization of property and equipment	**49,724**	90,617
Share based payments	**163,494**	80,946
Operating expenses	**2,744,843**	2,485,870

Public company related expenses include costs associated with investor relations, business development and financial advisory activities, legal and accounting fees, corporate insurance, director fees and transfer agent and other fees relating to our U.S. and Canadian stock listings. During the six month period ending June 30, 2017, our public company related expenses were $1,454,935 compared to $1,582,383 for the six month period ending June 30, 2016. The change was a result of our change in philosophy regarding investor relations (IR) activities, where we eliminated certain IR services bringing elements of IR in house and rationalizing IR related travel activity which was partially offset by an increase in business development activities in 2017.

Office expenses include compensation costs (excluding share based payments), office rent, and other office related costs. During the six month period ending June 30, 2017, we incurred office expenses of $1,076,690 compared to $731,924 during the six month period ending June 30, 2016. The change was due to an increase in headcount and a change in salary levels during the first half of 2017. As well, in the first half of 2016, we recognized recoveries from a development collaboration.

During the six month period ending June 30, 2017, our non-cash share based payment expenses were $163,494 compared to $80,946 for the six month period ending June 30, 2016. We incurred share based payment expenses associated with the granting of stock options, restricted share units and performance share units and the vesting of previously granted stock options, restricted share units and performance share units.

We now expect our operating expenses in 2017 to increase compared to 2016.

Commitments

As at June 30, 2017, we are committed to payments totaling $2,135,000 for activities related to our clinical trial, manufacturing and collaboration programs which are expected to occur over the next twelve months. We are committed to rental payments (excluding our portion of operating costs and rental taxes) under the terms of our office leases totaling $899,764. All of these committed payments are considered to be part of our normal course of business.

Summary of Quarterly Results

(unaudited)	2017		2016				2015	
(amounts in thousands, except per share data)	**June**	**March**	**Dec.**	**Sept**	**June**	**March**	**Dec.**	**Sept**
Revenue	—	—	—	—	—	—	—	—
Net loss[2]	4,349	3,518	5,210	3,332	2,581	4,017	3,497	2,824
Basic and diluted loss per common share[2]	$0.03	$0.03	$0.04	$0.03	$0.02	$0.03	$0.03	$0.02
Total assets[3]	17,579	10,623	14,758	18,437	21,368	23,023	27,384	31,001
Total cash[1][3]	16,676	10,102	14,123	17,702	20,410	22,322	26,077	30,023
Total long-term debt	—	—	—	—	—	—	—	—
Cash dividends declared[5]	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

(1) Included in total cash are cash and cash equivalents plus short-term investments.
(2) Included in net loss and loss per common share between June 2017 and July 2015 are quarterly stock based compensation expenses of $155,708, $133,889, $106,443, $98,369, $119,626, $81,640, $248,101, and $10,791, respectively.
(3) We issued 17,973,500 common shares for net cash proceeds of $11.2 million in 2017 (2016 - 3,106,600 common shares for net cash proceeds of $1.0 million; 2015 - 24,639,128 common shares for net cash proceeds of $23.7 million).
(4) We have not declared or paid any dividends since incorporation.

Liquidity and Capital Resources

2017 Financing Activities

"At-the-Market" equity distribution agreement

During the six month period ending June 30, 2017, we sold 842,000 common shares for gross proceeds of $668,648. We incurred share issue costs of $109,121.

Public offering

On June 1, 2017 we closed a public offering whereby we sold 16,445,000 units at a purchase price of $0.70 per unit for gross proceeds of $11,511,500. Each unit included one common share and one common share purchase warrant. Each common share purchase warrant entitles the holder to purchase one common share at an exercise price of $0.95 expiring on June 1, 2022. The common share purchase warrants will be subject to acceleration if the volume weighted average price of the Company's common shares equals or exceeds $2.50 for 15 consecutive trading dates. We incurred share issue costs of $1,145,402.

Options

During the second quarter of 2017, we received cash proceeds of $295,350 with respect to the exercise of 686,500 options by former employees.

2016 Financing Activities

During the period between February 26 and June 30, 2016, we sold 1,981,500 common shares for gross proceeds of $1,078,193. We incurred share issue costs which included costs to establish our Canadian ATM facility of $468,363.

Liquidity

As at June 30, 2017, we had cash and cash equivalents, short-term investments and working capital positions as follows:

	June 30, 2017 $	December 31, 2016 $
Cash and cash equivalents	16,676,298	12,034,282
Short-term investments	—	2,088,800
Working capital position	13,912,534	10,369,665

We do not have any debt other than trade accounts payable and we have potential contingent obligations relating to the completion of our research and development of REOLYSIN.

We desire to maintain adequate cash and short-term investment reserves to support our planned activities which include our clinical trial program, product manufacturing, administrative costs, and our intellectual property expansion and protection. To date, we have funded our operations mainly through the issue of additional capital via public and private offerings and through the exercise of warrants and stock options. In February 2016, we were able to raise funds through our Canadian ATM (our "Financing Arrangement").

We have no assurances that we will be able to raise additional funds through the sale of our common shares, consequently, we will continue to evaluate all types of financing arrangements. In an effort to be able to evaluate all types of financing arrangements, we maintain a current short form base shelf prospectus (the “Base Shelf”) that qualifies for distribution of up to $150,000,000 of common shares, subscription receipts, warrants, or units (the “Securities”). We renewed our Base Shelf on February 16, 2016 which allows us to sell Securities to or through underwriters, dealers, placement agents or other intermediaries and also allows us to sell Securities directly to purchasers or through agents, subject to obtaining any applicable exemption from registration requirements. The distribution of Securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, or at prices related to such prevailing market prices to be negotiated with purchasers and as set forth in an accompanying Prospectus Supplement. Our Base Shelf expires on March 16, 2018.

Maintaining our Base Shelf provides us with additional flexibility when managing our cash resources as, under certain circumstances, it shortens the time period required to close a financing and is expected to increase the number of potential investors that may be prepared to invest in our company. By utilizing our Base Shelf, we were able to enter into our Financing Arrangement.

Our Financing Arrangement provides us with access, subject to the respective terms and conditions, $4.6 million of which we have raised gross proceeds of approximately $2.1 million. We expect to continue to access our Financing Arrangement to help support our current clinical trial, manufacturing, intellectual property and collaboration programs.

We anticipate that the expected cash usage from our operations in 2017 will be between $14 - $16 million. We continue to manage our research and development plan with the objective of ensuring optimal use of our existing resources. Additional activities continue to be subject to adequate resources and we believe we will have sufficient cash resources and access to additional cash resources through our Financing Arrangement to fund our presently planned operations into 2018. Factors that will affect our anticipated cash usage in 2017, and for which additional funding might be required include, but are not limited to, expansion of our clinical trial program, the timing of patient enrollment in our approved clinical trials, the actual costs incurred to support each clinical trial, the number of treatments each patient will receive, the timing of R&D activity with our clinical trial research collaborations, the number, timing and costs of manufacturing runs required to conclude the validation process and supply product to our clinical trial program, and the level of collaborative activity undertaken.

We are not subject to externally imposed capital requirements and there have been no changes in how we define or manage our capital in 2017.

Financial Instruments and Other Instruments

Our financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable and accounts payable. As at June 30, 2017, there are no significant differences between the carrying values of these amounts and their estimated market values. These financial instruments expose us to the following risks:

Credit risk
Credit risk is the risk of financial loss if a counterparty to a financial instrument fails to meet its contractual obligations. We are exposed to credit risk on our cash and cash equivalents and short-term investments in the event of non-performance by counterparties, but we do not anticipate such non-performance. Our maximum exposure to credit risk at the end of the period is the carrying value of our cash and cash equivalents and short-term investments.

We mitigate our exposure to credit risk by maintaining our primary operating and investment bank accounts with Schedule I banks in Canada. For our foreign domiciled bank accounts, we use referrals or recommendations from our Canadian banks to open foreign bank accounts and these accounts are used solely for the purpose of settling accounts payable or payroll.

We also mitigate our exposure to credit risk by restricting our portfolio to investment grade securities with short-term maturities and by monitoring the credit risk and credit standing of counterparties. As at December 31, 2016, 100% of our short-term investments were in guaranteed investment certificates.

Interest rate risk
Interest rate risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in market interest rates. We are exposed to interest rate risk through our cash and cash equivalents and our portfolio of short-term investments. We mitigate this risk through our investment policy that only allows investment of excess cash resources in investment grade vehicles while matching maturities with our operational requirements.

Fluctuations in market rates of interest do not have a significant impact on our results of operations due to the short term to maturity of the investments held.

Currency risk
Currency risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. In the normal course of our operations, we are exposed to currency risk from the purchase of goods and services primarily in the U.S., the U.K. and the European Union. In addition, we are exposed to currency risk to the extent cash is held in foreign currencies from either the purchase of foreign currencies or when we receive foreign currency proceeds from financing activities. For the six month period ending June 30, 2017, the impact of a $0.01 increase in the value of the U.S. dollar against the Canadian dollar would have increased our net loss by approximately $21,234. The impact of a $0.10 increase in the value of the British pound against the Canadian dollar would have increased our net loss for the six month period ending June 30, 2017 by approximately $10,689. The impact of a $0.10 increase in the value of the Euro against the Canadian dollar would have decreased our net loss for the six month period ending June 30, 2017 by approximately $2,933.

We mitigate our foreign exchange risk by maintaining sufficient foreign currencies, through the purchase of foreign currencies or receiving foreign currencies from financing activities, to settle our foreign accounts payable.

Balances in foreign currencies at June 30, 2017 are as follows:

	U.S. Dollars $	**British Pounds** £	**Euro** €
Cash and cash equivalents	1,527,582	22,829	32,483
Accounts payable	(242,421)	(19,102)	—
	1,285,161	3,727	32,483

Liquidity risk
Liquidity risk is the risk that we will encounter difficulty in meeting obligations associated with financial liabilities. We manage liquidity risk through the management of our capital structure as outlined in Note 8 of our interim financial statements. Accounts payable are all due within the current operating period.

Other MD&A Requirements

We have 139,426,222 common shares outstanding at August 2, 2017. If all of our options, restricted share units and performance share units (9,903,215) and common share purchase warrants (16,445,000) were exercised or were to vest, we would have 165,774,437 common shares outstanding.

Our 2016 Annual Information Form on Form 20-F is available on www.sedar.com.

Disclosure Controls and Procedures

There were no changes in our internal controls over financial reporting during the quarter ended June 30, 2017 that materially affected or are reasonably likely to materially affect, internal controls over financial reporting.

Interim Consolidated Financial Statements
(unaudited)

Oncolytics Biotech® Inc.
June 30, 2017 and 2016

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

	Notes	June 30, 2017 $	December 31, 2016 $
Assets			
Current assets			
Cash and cash equivalents	*3*	**16,676,298**	12,034,282
Short-term investments	*3*	**—**	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
Commitments	*7*		
Shareholders' equity			
Share capital Authorized: unlimited Issued:			
June 30, 2017 – 139,231,722			
December 31, 2016 – 121,258,222	*4*	**270,091,373**	262,321,825
Warrants	*4*	**3,617,900**	—
Contributed surplus	*5*	**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

See accompanying notes

ONCOLYTICS BIOTECH INC.
INTERIM CONSOLIDATED STATEMENTS OF LOSS AND COMPREHENSIVE LOSS
(unaudited)

	Notes	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	*5, 11, 12*	**2,918,673**	1,490,956	**5,186,744**	4,217,085
Operating	*5, 11, 12*	**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	*6*	**(0.03)**	(0.02)	**(0.06)**	(0.06)
Weighted average number of shares (basic and diluted)	*6*	**127,349,643**	119,601,638	**124,320,760**	118,900,812

See accompanying notes

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

	Notes	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	*4*	1,078,193	—	—	—	—	1,078,193
Issued pursuant to incentive share award plan	*5*	41,000	—	(41,000)	—	—	—
Share issue costs	*4*	(468,363)	—	—	—	—	(468,363)
Share based compensation	*5*	—	—	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	*4*	668,648	—	—	—	—	668,648
Issued pursuant to public offering	*4*	7,893,600	3,617,900	—	—	—	11,511,500
Issued pursuant to stock option plan	*5*	461,823	—	(166,473)	—	—	295,350
Share issue costs	*4*	(1,254,523)	—	—	—	—	(1,254,523)
Share based compensation	*5*	—	—	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**

See accompanying notes

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

	Notes	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	*5, 11*	**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	*10*	**(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	*4*	**570,027**	710,374	**559,527**	609,830
Proceeds from public offering	*4*	**10,366,098**	—	**10,366,098**	—
Proceeds from exercise of options	*5*	**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

See accompanying notes

Note 1: Incorporation and Nature of Operations

Oncolytics Biotech Inc. was incorporated on April 2, 1998 under the Business Corporations Act (Alberta) as 779738 Alberta Ltd. On April 8, 1998, we changed our name to Oncolytics Biotech Inc.

Our interim consolidated financial statements for the period ended June 30, 2017, were authorized for issue in accordance with a resolution of the Board of Directors (the "Board") on August 2, 2017. We are a limited company incorporated and domiciled in Canada. Our shares are publicly traded and our registered office is located at 210, 1167 Kensington Crescent NW, Calgary, Alberta, Canada.

We are a development stage biopharmaceutical company that focuses on the discovery and development of pharmaceutical products for the treatment of cancers that have not been successfully treated with conventional therapeutics. Our lead product, REOLYSIN®, is a potential immuno-oncology viral-agent that may be a novel treatment for certain types of cancer and may be an alternative to existing cytotoxic or cytostatic therapies. Our clinical development program for REOLYSIN emphasizes three pillars: chemotherapy combinations to trigger selective tumor lysis; immune modulator (IMiD) combinations to facilitate innate immune responses and immuno-therapy combinations to produce adaptive immune responses.

Note 2: Basis of Financial Statement Presentation

Our interim consolidated financial statements include our financial statements and the financial statements of our subsidiaries as at June 30, 2017 and are presented in Canadian dollars, our functional currency.

Our accounts are prepared in accordance with International Financial Reporting Standards ("IFRS") and interpretations issued by the International Accounting Standards Board ("IASB"). The accounts are prepared on the historical cost basis, except for certain assets and liabilities which are measured at fair value as explained in the notes to these financial statements.

These interim consolidated financial statements have been prepared in compliance with International Accounting Standard 34 *Interim Financial Reporting.* The notes presented in these interim consolidated financial statements include only significant events and transactions occurring since our last fiscal year end and are not fully inclusive of all matters required to be disclosed in our annual audited consolidated financial statements. Accordingly, these interim consolidated financial statements should be read in conjunction with our most recent annual audited consolidated financial statements, for the year ended December 31, 2016. We have consistently applied the same accounting policies for all periods presented in these interim consolidated financial statements as those used in our audited consolidated financial statements for the year ended December 31, 2016.

Note 3: Cash Equivalents and Short Term Investments

Cash Equivalents
Cash equivalents consist of interest bearing deposits with our bank totaling $14,239,385 (December 31, 2016 – $10,679,992). The current annual interest rate earned on these deposits is 0.93% (December 31, 2016 – 0.96%).

Short-Term Investments
Short-term investments consisted of guaranteed investment certificates which are liquid investments that are readily convertible to known amounts of cash and are subject to an insignificant risk of changes in value. The objectives for holding short-term investments were to invest our excess cash resources in investment vehicles that provided a better rate of return compared to our interest bearing bank account with limited risk to the principal invested. We intended to match the maturities of these short-term investments with the cash requirements of the Company's activities and treated these as held-to-maturity short-term investments.

	Face Value $	Original Cost $	Accrued Interest $	Carrying Value $	Fair Value $	Effective Interest Rate %
June 30, 2017						
Short-term investments	—	—	—	—	—	—%
December 31, 2016						
Short-term investments	2,088,800	2,088,800	—	2,088,800	2,088,800	1.41%

Fair value is determined by using published market prices provided by our investment advisor.

Note 4: Share Capital

Authorized:
Unlimited number of no par value common shares.

Issued:	Shares		Warrants	
	Number	Amount $	Number	Amount $
Balance, December 31, 2015	118,151,622	261,324,692	—	—
Issued pursuant to incentive share award plan	100,000	41,000	—	—
Issued pursuant to "At the Market" equity distribution agreement[(a)]	3,006,600	1,456,296	—	—
Share issue costs	—	(500,163)	—	—
Balance, December 31, 2016	121,258,222	262,321,825	—	—
Issued pursuant to stock option plan	686,500	461,823	—	—
Issued pursuant to "At the Market" equity distribution agreement[(a)]	842,000	668,648	—	—
Issued pursuant to public offering[(b)]	16,445,000	7,893,600	16,445,000	3,617,900
Share issue costs	—	(1,254,523)	—	—
Balance, June 30, 2017	**139,231,722**	**270,091,373**	**16,445,000**	**3,617,900**

(a) On February 25, 2016, we entered into an "at-the-market" equity distribution agreement with Canaccord Genuity Inc. acting as our sole agent with an aggregate offering value of $4.6 million and allows us to sell our common shares through the facilities of the Toronto Stock Exchange or other "marketplace" (as defined in National Instrument 21-101 Marketplace Operation) in Canada (our "Canadian ATM"). Subject to the terms of our Canadian ATM, we are able to determine, at our sole discretion, the timing and number of shares to be sold under this ATM facility. During the period ending June 30, 2017, we sold 842,000 (2016 - 1,981,500) common shares for gross proceeds of $668,648 (2016 - $1,078,193). We incurred share issue costs of $109,121 (2016 - $468,363).

(b) On June 1, 2017, pursuant to an underwritten public offering, 16,445,000 units were sold at a purchase price of $0.70 per unit for gross proceeds of $11,511,500. Each unit included one common share (ascribed value of $0.48) and one common share purchase warrant (ascribed value of $0.22). The ascribed value was determined using the relative fair value method. The ascribed value of the common share purchase warrants was determined using the Black Scholes option pricing model. Each common share purchase warrant entitles the holder to purchase one common share in the capital of the Company until June 1, 2022, at an exercise price of $0.95. The common share purchase warrants will be subject to acceleration if the volume weighted average price of the Company's common shares equals or exceeds $2.50 for 15 consecutive trading dates. We incurred share issue costs of $1,145,402.

Warrants

The following table summarizes the assumptions used in the Black Scholes Option Pricing Model with respect to the valuation of warrants issued:

	2017
Risk-free interest rate	**0.70%**
Expected hold period to exercise	**2.0 years**
Volatility in the price of the Company's shares	**89.30%**
Dividend yield	**Nil**

We use historical data to estimate the expected dividend yield and expected volatility of our stock in determining the fair value of the warrants. The risk-free interest rate is based on the Government of Canada benchmark bond yield rates in effect at the time of grant and the expected life of the warrants represents the estimated length of time the warrants are expected to remain outstanding.

The following table summarizes our outstanding warrants at June 30, 2017:

Exercise Price	Outstanding, Beginning of Period	Granted During the Period	Outstanding, End of Period	Weighted Average Remaining Contractual Life (years)
$0.95	—	16,445,000	16,445,000	4.92

Note 5: Share Based Payments

Stock Option Plan

We have issued stock options to acquire common stock through our stock option plan of which the following are outstanding at June 30:

	2017		2016	
	Stock Options	Weighted Average Exercise Price $	Stock Options	Weighted Average Exercise Price $
Outstanding, beginning of period	**8,674,227**	**1.83**	8,561,394	2.17
Granted during the period	**140,000**	**0.38**	—	—
Expired during the period	**(17,900)**	**2.25**	(706,667)	3.64
Forfeited during the period	**(702,000)**	**3.26**	(100,000)	1.69
Exercised during the period	**(686,500)**	**0.43**	—	—
Outstanding, end of period	**7,407,827**	**1.80**	7,754,727	2.04
Options exercisable, end of period	**5,766,243**	**2.21**	5,669,727	2.63

The following table summarizes information about the stock options outstanding and exercisable at June 30, 2017:

Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price $	Number Exercisable	Weighted Average Exercise Price $
$0.26 - $0.41	1,989,000	9.4	0.30	1,082,666	0.32
$0.42 - $0.57	1,562,500	8.4	0.42	838,500	0.42
$0.58 - $1.87	1,460,667	6.5	1.54	1,449,417	1.55
$1.88 - $3.95	1,289,660	3.7	3.04	1,289,660	3.04
$3.96 - $6.72	1,106,000	4.5	5.34	1,106,000	5.34
	7,407,827	6.9	1.80	5,766,243	2.21

Non-exercisable options vest annually over periods ranging from one to three years or upon satisfaction of certain performance conditions.

The estimated fair value of stock options granted during the period was determined using the Black Scholes Option Pricing Model using the following weighted average assumptions and fair value of options:

	2017	2016
Risk-free interest rate	**0.90%**	—
Expected hold period to exercise	**3.0 years**	—
Volatility in the price of the Company's shares	**88.71%**	—
Rate of forfeiture	**3.67%**	—
Dividend yield	**Nil**	—
Weighted average fair value of options	**$0.22**	—

We use historical data to estimate the expected dividend yield and expected volatility of our stock in determining the fair value of the stock options. The risk-free interest rate is based on the Government of Canada benchmark bond yield rates in effect at the time of grant and the expected life of the options represents the estimated length of time the options are expected to remain outstanding.

Incentive Share Award Plan

Restricted Share Units

We have issued restricted share units ("RSU") to non-employee directors through our incentive share award plan. Grants of RSU to non-employee directors vest either on the third anniversary date from the grant date or when the director ceases to be a member of the board. The following RSU are outstanding at June 30:

	2017	2016
Outstanding, beginning of the period	**1,322,829**	368,831
Granted during the period[(1)]	**87,559**	37,812
Vested during the period	**—**	(100,000)
Outstanding, end of the period	**1,410,388**	306,643

(1) The weighted average fair value of the RSU granted was $0.59 in 2017.

Performance Share Units

We have also issued performance share units ("PSU") to certain officers and employees of the Company. Grants of PSU require completion of certain performance criteria and cliff vest after three years or vest over a three year period, depending on the grant. PSU grants to certain officers will vest immediately upon a change of control of the Company. If certain officers cease employment with the Company, vesting occurs on a pro rata basis prior to the third anniversary of the grant but after the first anniversary. The following PSU are outstanding at June 30:

	2017	2016
Outstanding, beginning of the period	**840,000**	—
Granted during the period[(1)]	**60,000**	—
Vested during the period	—	—
Outstanding, end of the period	**900,000**	—

(1) The weighted average fair value of the PSU granted was $0.35 in 2017.

We have reserved 13,923,172 common shares for issuance relating to outstanding stock options. Compensation expense related to stock options, RSU and PSU was $155,708 and $289,597 for the three and six month periods ending June 30, 2017, respectively (2016 - $119,626 and $201,266, respectively).

Note 6: Loss Per Common Share

Loss per common share is calculated using the net loss for the three and six month periods and the weighted average number of common shares outstanding for the three and six month periods ending June 30, 2017 of 127,349,643 and 124,320,760, respectively (June 30, 2016 of 119,601,638 and 118,900,812, respectively). The effect of any potential exercise of our stock options and warrants outstanding during the period has been excluded from the calculation of diluted loss per common share, as it would be anti-dilutive.

Note 7: Commitments

We are committed to payments totaling $2,135,000 for activities related to our clinical trial, manufacturing and collaboration programs.

We are committed to rental payments (excluding our portion of operating costs and rental taxes) under the terms of our office leases. Annual payments under the terms of these leases are as follows:

	Amount $
Remainder of 2017	145,601
2018	292,265
2019	256,838
2020	161,930
2021	43,130
	899,764

Under a clinical trial agreement entered into with the Alberta Cancer Board ("ACB"), we have agreed to repay the amount funded under the agreement together with a royalty, to a combined maximum amount of $400,000 plus an overhead repayment of $100,000, upon sales of a specified product. We agreed to repay the ACB in annual installments in an amount equal to the lesser of: (a) 5% of gross sales of a specified product; or (b) $100,000 per annum once sales of a specified product commence.

Note 8: Capital Disclosures

Our objective when managing capital is to maintain a strong statement of financial position. We achieve our objective by obtaining adequate cash resources to support planned activities which include the clinical trial program, product manufacturing, administrative costs and intellectual property expansion and protection. We include shareholders' equity, cash and cash equivalents and short-term investments in the definition of capital.

	June 30, 2017 $	December 31, 2016 $
Cash and cash equivalents	**16,676,298**	12,034,282
Short-term investments	—	2,088,800
Shareholders' equity	**14,267,843**	10,689,620

We do not have any debt other than trade accounts payable and we have potential contingent obligations relating to the completion of our research and development of REOLYSIN.

In managing our capital, we estimate our future cash requirements by preparing a budget and a multi-year plan annually for review and approval by our Board . The budget establishes the approved activities for the upcoming year and estimates the costs associated with these activities. The multi-year plan estimates future activity along with the potential cash requirements and is based on our assessment of our current clinical trial progress along with the expected results from the coming year's activity. Budget to actual variances are prepared and reviewed by management and are presented quarterly to the Board.

Historically, funding for our plan is primarily managed through the issuance of additional common shares and common share purchase warrants that upon exercise are converted to common shares. Management regularly monitors the capital markets attempting to balance access to capital in different jurisdictions, the timing of issuing additional equity with our progress through our clinical trial program, general market conditions, and the availability of capital. There are no assurances that funds will be made available to us when required.

On February 16, 2016, we renewed our short form base shelf prospectus (the "Base Shelf") that qualifies for distribution of up to $150,000,000 of common shares, subscription receipts, warrants, or units (the "Securities") in Canada. Under our Base Shelf, we may sell Securities to or through underwriters, dealers, placement agents or other intermediaries and also may sell Securities directly to purchasers or through agents, subject to obtaining any applicable exemption from registration requirements. The distribution of Securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, or at prices related to such prevailing market prices to be negotiated with purchasers and as set forth in an accompanying Prospectus Supplement.

Renewing our Base Shelf provides us with additional flexibility when managing our cash resources as, under certain circumstances, it shortens the time period required to close a financing and is expected to increase the number of potential investors that may be prepared to invest in our company. Funds received from a Prospectus Supplement will be used in line with our Board approved budget and multi-year plan. Our renewed Base Shelf expires on March 16, 2018 and allowed us to enter into our Canadian ATM equity distribution agreement (see Note 4). We use this equity arrangement to assist us in achieving our capital objective.

We are not subject to externally imposed capital requirements and there have been no changes in how we define or manage our capital in 2017.

Note 9: Financial Instruments

Our financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable, and accounts payable. As at June 30, 2017, there are no significant differences between the carrying values of these amounts and their estimated market values.

Credit risk

Credit risk is the risk of financial loss if a counterparty to a financial instrument fails to meet its contractual obligations. We are exposed to credit risk on our cash and cash equivalents and short-term investments in the event of non-performance by counterparties, but we do not anticipate such non-performance. Our maximum exposure to credit risk at the end of the period is the carrying value of our cash and cash equivalents and short-term investments.

We mitigate our exposure to credit risk by maintaining our primary operating and investment bank accounts with Schedule I banks in Canada. For our foreign domiciled bank accounts, we use referrals or recommendations from our Canadian banks to open foreign bank accounts and these accounts are used solely for the purpose of settling accounts payable or payroll.

We also mitigate our exposure to credit risk by restricting our portfolio to investment grade securities with short-term maturities and by monitoring the credit risk and credit standing of counterparties. As at December 31, 2016, 100% of our short-term investments were in guaranteed investment certificates.

Interest rate risk

Interest rate risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in market interest rates. We are exposed to interest rate risk through our cash and cash equivalents and our portfolio of short-term investments. We mitigate this risk through our investment policy that only allows investment of excess cash resources in investment grade vehicles while matching maturities with our operational requirements.
Fluctuations in market rates of interest do not have a significant impact on our results of operations due to the short term to maturity of the investments held.

Currency risk

Currency risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. In the normal course of our operations, we are exposed to currency risk from the purchase of goods and services primarily in the U.S., the U.K. and the European Union. In addition, we are exposed to currency risk to the extent cash is held in foreign currencies from either the purchase of foreign currencies or when we receive foreign currency proceeds from financing activities. The impact of a $0.01 increase in the value of the U.S. dollar against the Canadian dollar would have increased our net loss for the six month period ending June 30, 2017 by approximately $21,234. The impact of a $0.10 increase in the value of the British pound against the Canadian dollar would have increased our net loss for the six month period ending June 30, 2017 by approximately $10,689. The impact of a $0.10 increase in the value of the Euro against the Canadian dollar would have decreased our net loss for the six month period ending June 30, 2017 by approximately $2,933.

We mitigate our foreign exchange risk by maintaining sufficient foreign currencies, through the purchase of foreign currencies or receiving foreign currencies from financing activities, to settle our foreign accounts payable.

Balances in foreign currencies at June 30, 2017 are as follows:

	U.S. Dollars $	British Pounds £	Euro €
Cash and cash equivalents	1,527,582	22,829	32,483
Accounts payable	(242,421)	(19,102)	—
	1,285,161	3,727	32,483

Liquidity risk

Liquidity risk is the risk that we will encounter difficulty in meeting obligations associated with financial liabilities. We manage liquidity risk through the management of our capital structure as outlined in Note 8. Accounts payable are all due within the current operating period.

Note 10: Additional Cash Flow Disclosures

Net Change In Non-Cash Working Capital

	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 $
Change in:				
Accounts receivable	**(25,625)**	5,015	**(7,703)**	285,426
Prepaid expenses	**(302,178)**	(301,182)	**(224,234)**	(23,801)
Accounts payable and accrued liabilities	**(37,818)**	226,367	**(757,716)**	71,213
Non-cash impact of foreign exchange	**148,715**	107,381	**135,101**	429,398
Change in non-cash working capital related to operating activities	**(216,906)**	37,581	**(854,552)**	762,236

Other Cash Flow Disclosures

	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 $
Cash interest received	**14,163**	35,537	**64,878**	105,158
Cash taxes paid	**—**	(169)	**—**	(314)

Note 11: Other Expenses and Adjustments

We present our expenses based on the function of each expense and therefore include realized foreign exchange gains and losses, unrealized non-cash foreign exchange gains and losses, and non-cash stock based compensation associated with research and development activity as a component of research and development expenses and amortization of property and equipment and stock based compensation associated with operating activities as a component of operating expenses.

	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 $
Included in research and development expenses:				
Realized foreign exchange loss (gain)	**45,340**	7,567	**(44)**	77,459
Unrealized non-cash foreign exchange gain	**(119,937)**	(243,914)	**(47,156)**	(102,619)
Non-cash share based payments	**58,270**	60,717	**126,103**	120,320
Included in operating expenses:				
Amortization of property and equipment	**25,688**	44,675	**49,724**	90,617
Non-cash share based payments	**97,438**	58,909	**163,494**	80,946
Office minimum lease payments	**49,069**	37,481	**98,138**	85,969

Note 12: Related Party Transactions

Compensation of Key Management Personnel

Key management personnel are those persons having authority and responsibility for planning, directing and controlling our activities as a whole. We have determined that key management personnel consists of the members of the Board of Directors along with certain officers of the Company.

	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 $
Short-term compensation and benefits	**528,407**	690,992	**1,110,802**	1,358,446
Termination benefits	**779,666**	—	**779,666**	—
Share-based payments	**113,172**	119,626	**211,663**	201,266
	1,421,245	810,618	**2,102,131**	1,559,712

Shareholder Information

For public company filings please go to www.sedar.com or contact us at:

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Andres Gutierrez, MD, PhD
Chief Medical Officer
Andrew de Guttadauro
President, Oncolytics Biotech (U.S.) Inc.

Directors

Matt Coffey, PhD
President and CEO, Oncolytics Biotech Inc.
Angela Holtham, FCPA, FCMA, ICD.D
Corporate Director
J. Mark Lievonen, C.M., FCPA, FCA
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