Third Quarter Report

September 30, 2017

Oncolytics Biotech Inc.
TSX: ONC
OTCQX: ONCYF

Oncolytics Letter to Stakeholders – Q3 2017

Just prior to the third quarter, we completed an $11.5 million public offering that meaningfully extended our cash runway and allowed us to focus our efforts on our next major milestone: a phase 3 registration study of REOLYSIN® in metastatic breast cancer (mBC). Compelling data from our randomized phase 2 mBC study and a favorable End-of-Phase 2 meeting with the United States Food and Drug Administration (FDA) were additional key developments driving value at Oncolytics. As well, we treated the first patient in our Phase 1b multiple myeloma clinical collaboration with Celgene (the MUK eleven trial), which will study REOLYSIN in combination with their immunomodulatory drugs (IMiDs) Revlimid® and Imnovid®. In addition to these positive developments, we made progress on initiatives at the corporate level that will support our clinical plans going forward.

Clinical Developments

REOLYSIN Nearly Doubles Overall Survival in Hormone Receptor Positive Patients & Maintains Strong Safety Profile

At the 2017 European Society for Medical Oncology Congress (ESMO), we presented additional statistically significant and clinically meaningful data from our IND 213 randomized phase 2 mBC study with the Canadian Cancer Trials Group (CCTG). As we previously reported, the intention to treat patient population saw a statistically significant seven-month improvement in medium overall survival (OS) despite no change in progression free survival. Subsequent analysis showed an additional benefit in patients with hormone receptor positive HER2 negative disease. Patients with estrogen receptor positive (with or without progesterone receptor) HER2 negative disease , receiving REOLYSIN and paclitaxel nearly doubled median OS from 10.8 months to 21.0 months when compared to patients receiving paclitaxel alone. Furthermore, as presented in the ESMO poster, patients with both estrogen and progesterone receptor positive HER2 negative disease ((ER+/PR+) / HER2-) in the test arm more than doubled median OS from 10.8 months on the control arm (paclitaxel alone) to 21.8 months. In addition to substantiating our proposed phase 3 study target population, these data represent an opportunity to address a significant unmet need, as patients with HR+/HER2- mBC represent over 70 percent of mBC cases. We envision REOLYSIN playing a key role in the treatment of these patients who have not responded to first- and second-line treatment. For these patients, where few treatments exist and/or are in development, REOLYSIN could provide a new treatment option with a significant OS benefit to a large unserved market.

At ESMO we also presented results of our pooled safety and tolerability analysis of REOLYSIN in combination with chemotherapy in more than 500 cancer patients. The analysis demonstrated that REOLYSIN continues to be safe and well tolerated and is the largest immuno-oncolytic virus (IOV) safety database reported to-date.

Favorable End-of-Phase 2 Meeting with the FDA REOLYSIN in mBC

Our recent End-of-Phase 2 meeting with the FDA provided clear guidance on the design of our planned phase 3 registration study of REOLYSIN in mBC. In addition to supporting our proposed target patient population of HR+/HER2- mBC patients, the FDA provided guidance that OS should be the primary endpoint in a 400-patient study that, if successful, will be the only study required for a Biologics License Application (BLA) submission to the FDA which will allow us to commercialize and sell REOLYSIN upon an eventual approval. We expect the study will begin enrolling mid-2018 and will include a pre-determined interim analysis.

We look forward to providing details of the pivotal phase 3 registration study following discussions with clinical advisors, European regulators (EMA) and potential partners. We are currently working to finalize the adaptive study design and expect to announce feedback from the EMA, details of the study design and the outcome of our registration study filings (breakthrough designation and special protocol assessment) over the course of the next few months.

First Patient Treated in MUK eleven Study

During the third quarter, we treated the first patient in our Phase 1b MUK *eleven* trial, which will study REOLYSIN in combination with Celgene's Revlimid and Imnovid to treat relapsing myeloma patients. Revlimid had sales of close to $6 billion in 2015 and is expected to sell close to $14 billion in 2022. Its an early stage study, but if REOLYSIN can extend the use of Revlimid in myeloma patients, it could be extremely meaningful for this franchise. This is our first study examining the innate immunity component of REOLYSIN's mechanism of action, and part of our broader strategy to assess the safety and efficacy of REOLYSIN in combination with IMiDs and other targeted therapies.

Corporate Developments

Strengthening our Leadership Team, Developing a Scientific Advisory Board (SAB)

As we progress towards our mBC registration program, we continue to build a world-class leadership team. We welcomed Andrew de Guttadauro to lead our global partnering and business development efforts as President of our U.S. subsidiary. Mr. de Guttaduaro will lead the Company's pursuit of both global and regional licensing, partnership and commercialization opportunities for REOLYSIN. We are focused on collaborations to study combinations of REOLYSIN and checkpoint inhibitors and on securing one or more partners to support our phase 3 registration study in mBC that we plan to initiate next year. Mr. de Guttaduaro brings more than 25 years of biopharmaceutical business development and commercialization experience that will be invaluable as we pursue research collaboration and commercialization partnerships. Subsequent to the quarter's end, we also added Deborah Brown as a member of our board of directors. Ms. Brown brings tremendous experience in product launches and market expansion and will be a very valuable member of our team as we drive towards eventual commercialization.

We intend to build an SAB that will provide the significant experience and expertise required for our phase 3 study. This team will also provide guidance as we advance our clinical development plan into additional collaborations and we look forward to formally introducing the inaugural members later this year.

Initiated the NASDAQ Relisting Process

Our finance and investor relations team have carried out significant due diligence around not just the relisting process and mechanics, but the potential value gained by relisting on NASDAQ and the potential unrealized value and hurdles of not having a NASDAQ listing. The results speak for themselves and simply stated, there seems to be a disconnect between the value of comparable biotech companies listed on the NASDAQ versus those without a listing. Given that Oncolytics is rapidly advancing to a registration study and its most significant milestones to date, we have defined the pathway to relisting our shares on the NASDAQ to increase access to U.S. based investors and U.S. capital markets along with increasing our profile globally. Our goal is to relist on NASDAQ in 2018.

Looking Ahead

We made meaningful and significant clinical and corporate progress during the third quarter of 2017. The remainder of 2017 will see our team focusing on the completion of regulatory filings, continued business development activities and clinical advancements in preparation for the registration study. I look forward to providing updates on all of these initiatives in 2018, which we expect to be a very exciting year for Oncolytics and all of its stakeholders.

/s/ Dr. Matt Coffey
President and CEO

MANAGEMENT DISCUSSION & ANALYSIS

September 30, 2017

November 7, 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 interim consolidated financial statements of Oncolytics Biotech Inc. as at and for the three and nine months ended September 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").

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® (pelareorep), 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 clinical development plan, our ability to receive regulatory approval to commence enrollment in the clinical studies which are part of our clinical development plan, 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 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 along with immuno-modulatory (IMiD) and other targeted 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 - Adaptive Immune Response
Our second 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.

Path #3 - Innate Immune Response
Our third 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.

Third Quarter 2017 Developments:

Path #1 - Direct Tumour Lysis

Metastatic Breast Cancer
In September 2017, we announced a favorable End-of-Phase 2 meeting with the U.S. Food and Drug Administration (FDA) for REOLYSIN in combination with paclitaxel, for the treatment of hormone receptor positive, HER2 receptor negative (HR+/HER2-) metastatic breast cancer (mBC) patients. The purpose of the meeting was to discuss the preclinical and clinical programs, including the design of the phase 3 registration study to support a future Biologics License Application (BLA) submission in the U.S. The FDA's feedback and positive End-of-Phase 2 meeting outcome support our proposed target patient population of HR positive/ HER2 negative metastatic breast cancer patients for our registration study. Importantly, the FDA provided guidance that if the study achieves its primary endpoint, then it will be the only study required for BLA approval which would allow us to commercialize and sell REOLYSIN.

In addition, we announced updated overall survival data in Hormone Receptor Positive (ER+PR+) / HER2- patients at the European Society for Medical Oncology (ESMO) 2017 Congress. In the IND 213 randomized phase 2 study in metastatic breast cancer, conducted by the Canadian Cancer Trials Group, HR+ (ER+/PR+) / HER2- patients (n="47") demonstrated that the test arm of REOLYSIN/paclitaxel more than doubled median overall survival (OS) from 10.8 months on the control arm (paclitaxel alone) to 21.8 months. The hazard ratio was 0.36 and p-value was 0.003. The ITT (intent-to-treat) group (n="74", all genetic subtypes) improved median OS from 10.4 months on the control arm to 17.4 months on the test arm. The topline ITT data was initially announced at the American Association for Cancer Research in April 2017.

Path #2 - Adaptive Immune Response

In support of the adaptive immunity component of the MOA, we continued with 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).

Path #3 - 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®.

In September 2017, we announced that the first patient had been treated in the Phase 1b trial MUK *eleven* study.

Immuno-Oncolytic Virus Safety Database

At the ESMO 2017 Congress, we announced pooled data analysis of the safety and tolerability of intravenous pelareorep in combination with chemotherapy in 500+ cancer patients. The analysis demonstrates a strong safety profile in support of our clinical development plan. Highlights of the pooled safety data study include:

- Adverse events reported most frequently by REOLYSIN-treated patients were reversible Grade 1 and 2 events, including fever, chills, fatigue and the gastrointestinal-related AEs of nausea, vomiting, diarrhea.
- REOLYSIN did not modify or increase chemotherapy-induced Grade 3 or 4 treatment-emergent adverse events (TEAEs).
- Certain serious TEAEs were more common in the REOLYSIN-treated arms, however the incidence of serious AEs due to febrile neutropenia and/or infection was similar in each group.

Manufacturing and Process Development

During the third quarter of 2017, we continued to supply our clinical development program with previously filled product from our existing supply of REOLYSIN, labeled for the applicable usage. As well, we continued our activities to source and develop commercial production capabilities to fill REOLYSIN into vials, the next step in the 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 third quarter of 2017, we had been issued over 432 patents including 63 U.S. and 21 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 nine month period ending September 30, 2017, we sold 2,167,500 common shares for gross proceeds of $1,479,065. We incurred share issue costs which included costs to establish our Canadian ATM facility of $186,367.

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 nine month period ending September 30, 2017, we received cash proceeds of $343,440 with respect to the exercise of 801,000 options by former employees.

Financial Impact

We estimated at the beginning of the third quarter of 2017 that our cash requirements to fund our operations for the year will be between $14 - $16 million depending on our ultimate clinical program (see *"Liquidity and Capital Resources"*). Our cash usage for the nine month period ending September 30, 2017 was $11,668,108 from operating activities and $95,337 for the acquisition of property and equipment. Our net loss for the nine month period ending September 30, 2017 was $10,871,267.

Cash Resources

We exited the third quarter of 2017 with cash and short-term investments totaling $14,033,644 (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 in an effort to commence a phase 3 clinical study in mBC. Our focus will be on the adaptive study design that will include approximately four hundred patients with a pre-determined interim analysis. Our proposed target population for the phase 3 study of pelareorep is patients with HR+/HER2- mBC, which represents approximately 73 percent of metastatic breast cancer cases that have limited treatment options that offer survival benefit.

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.

Third Quarter Results of Operations

(for the three months ended September 30, 2017 and 2016)

Net loss for the three month period ending September 30, 2017 was $3,004,406 compared to $3,332,474 for the three month period ending September 30, 2016.

Research and Development Expenses ("R&D")

	2017 $	2016 $
Clinical trial expenses	**604,503**	392,447
Manufacturing and related process development expenses	**367,513**	637,684
Intellectual property expenditures	**246,373**	302,934
Research collaboration expenses	**35,564**	53,149
Other R&D expenses	**545,792**	730,303
Foreign exchange gain	**(128,835)**	(43,669)
Share based payments	**56,757**	70,092
Scientific research and development refund	**(941)**	(1,203)
Research and development expenses	**1,726,726**	2,141,737

Clinical Trial Program

	2017 $	2016 $
Clinical trial expenses	**604,503**	392,447

Our clinical trial expenses for the third quarter of 2017 were $604,503 compared to $392,447 for the third quarter of 2016. In the third quarter of 2017, our clinical trial program focused mainly on the preparation and development of our breast cancer registration study (Path #1 of our Clinical Development Plan). These activities included costs to complete our supporting regulatory documents, regulatory filing fees, attending an End of Phase 2 meeting with the FDA and key opinion leader activities. During the third 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	**179,521**	443,650
Process development expenses	**187,992**	194,034
Manufacturing and related process development expenses	**367,513**	637,684

Our M&P expenses for the third quarter of 2017 were $367,513 compared to $637,684 for the third quarter of 2016. During the third quarters of 2017 and 2016, our product manufacturing costs mainly related to shipping and storage costs of our bulk and vialed product along with lot release testing.

Our process development expenses for the third quarter of 2017 were $187,992 compared to $194,034 for the third quarter of 2016. During the third quarter of 2017, our process development activities focused on stability studies. In the third quarter of 2016, these activities related to scale up and process optimization studies.

Intellectual Property Expenses

	2017 $	2016 $
Intellectual property expenses	**246,373**	302,934

Our intellectual property expenses for the third quarter of 2017 were $246,373 compared to $302,934 for the third 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 third quarter of 2017, we had been issued over 432 patents including 63 U.S. and 21 Canadian patents, as well as issuances in other jurisdictions.

Research Collaborations

	2017 $	2016 $
Research collaborations	**35,564**	53,149

Our research collaboration expenses for the third quarter of 2017 were $35,564 compared to $53,149 for the third quarter of 2016. During the third quarters of 2017 and 2016, our research collaborations were primarily focused on biomarker studies.

Other Research and Development Expenses

	2017 $	2016 $
R&D salaries and benefits	**482,855**	680,772
Other R&D expenses	**62,937**	49,531
Other research and development expenses	**545,792**	730,303

Our other research and development expenses for the third quarter of 2017 were $545,792 compared to $730,303 for the third quarter of 2016. The change in our R&D salaries and benefits was mainly due to the change in chief executive officers in 2016 along with a drop in head count as a result of the termination of certain officers in the second quarter of 2017. The change in our Other R&D expenses was due to an increase in conference attendance and related travel expenses.

Share Based Payments

	2017 $	2016 $
Share based payments	**56,757**	70,092

Share based payments are non-cash amounts that are a result of activity related to our stock option and incentive share award plans. During the third quarter of 2017, our share based payment expenses were $56,757 compared to $70,092 for the third quarter of 2016. We incurred stock based compensation associated with the granting of options and restricted share units to employees in the third quarter of 2017 and the vesting of previously granted share awards.

Operating Expenses

	2017 $	2016 $
Public company related expenses	**546,754**	678,482
Office expenses	**650,572**	471,674
Amortization of property and equipment	**20,591**	44,014
Share based payments	**91,690**	28,277
Operating expenses	**1,309,607**	1,222,447

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 Canadian and U.S. stock listings. During the third quarter of 2017, our public company related expenses were $546,754 compared to $678,482 for the third 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.

Office expenses include compensation costs (excluding share based payments), office rent and other office related costs. During the third quarter of 2017, our office expenses were $650,572 compared to $471,674 for the third quarter of 2016. The change was primarily due to an increase in headcount and change in salary levels in 2017.

During the third quarter of 2017, our non-cash share based payment expenses were $91,690 compared to $28,277 for the third quarter of 2016. We incurred share based payment expenses associated with the granting of options and restricted share units to officers and independent board members along with the vesting of previously granted share awards.

Results of Operations

(for the nine month period ending September 30, 2017 and 2016)

Net loss for the nine month period ending September 30, 2017 was $10,871,267 compared to $9,929,957 for the nine month period ending September 30, 2016.

Research and Development Expenses ("R&D")

	2017 $	2016 $
Clinical trial expenses	**2,016,034**	1,576,390
Manufacturing and related process development expenses	**1,242,545**	1,275,686
Intellectual property expenditures	**742,458**	827,072
Research collaboration expenses	**178,516**	191,675
Other R&D expenses	**2,728,033**	2,066,733
Foreign exchange (gain) loss	**(176,035)**	232,057
Share based payments	**182,860**	190,412
Scientific research and development refund	**(941)**	(1,203)
Research and development expenses	**6,913,470**	6,358,822

Clinical Trial Program

	2017 $	2016 $
Clinical trial expenses	**2,016,034**	1,576,390

During the nine month period ending September 30, 2017, our clinical trial expenses were $2,016,034 compared to $1,576,390 for the nine month period ending September 30, 2016. During the nine month period ending September 30, 2017, our clinical trial program focused mainly on the preparation and development of our breast cancer registration study. These activities included costs to complete our supporting regulatory documents, regulatory filing fees, planning for and attending an End of Phase 2 meeting with the FDA and key opinion leader activities. During the nine month periods ending September 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 mBC registration study.

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

	2017 $	2016 $
Product manufacturing expenses	**828,350**	808,841
Process development expenses	**414,195**	466,845
Manufacturing and related process development expenses	**1,242,545**	1,275,686

Our M&P expenses for the nine month period ending September 30, 2017 were $1,242,545 compared to $1,275,686 for the nine month period ending September 30, 2016. During the nine month periods ending September 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 nine month period ending September 30, 2017 were $414,195 compared to $466,845 for the nine month period ending September 30, 2016. During the nine month period ending September 30, 2017, our process development activities focused on stability studies. During the nine month period ending September 30, 2016, our process development activities focused on our validation master plan, which included stability, scale up and process optimization studies.

We now expect our M&P expenses for 2017 to remain consistent with 2016. In 2017, we expect to label and store sufficient product to commence a registration study and support ongoing studies through 2018. We also expect to continue to perform stability testing and analytical development related to our process validation master plan and stability program.

Intellectual Property Expenses

	2017 $	2016 $
Intellectual property expenses	**742,458**	827,072

Our intellectual property expenses for the nine month period ending September 30, 2017 were $742,458 compared to $827,072 for the nine month period ending September 30, 2016. The change in intellectual property expenditures reflects the timing of filing costs associated with our expanded patent base. For the nine month period ending September 30, 2017, we had been issued over 432 patents including 63 U.S. and 21 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	**178,516**	191,675

Our research collaboration expenses for the nine month period ending September 30, 2017 were $178,516 compared to $191,675 for the nine month period ending September 30, 2016. During the nine month periods ending September 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	**2,542,104**	1,913,155
Other R&D expenses	**185,929**	153,578
Other research and development expenses	**2,728,033**	2,066,733

Our other research and development expenses for the nine month period ending September 30, 2017 were $2,728,033 compared to $2,066,733 for the nine month period ending September 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. The change in Other R&D expenses was due to an increase in conference attendance and related travel expenses.

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	**182,860**	190,412

Share based payments are non-cash amounts that are a result of activity related to our stock option and incentive share award plans. For the nine month period ending September 30, 2017, our share based payment expenses were $182,860 compared to $190,412 for the nine month period ending September 30, 2016. We incurred share based payment expenses associated with the granting of options and restricted share units and the vesting of previously granted share awards.

Operating Expenses

	2017 $	2016 $
Public company related expenses	**2,001,689**	2,260,865
Office expenses	**1,727,262**	1,203,598
Amortization of property and equipment	**70,315**	134,631
Share based payments	**255,184**	109,223
Operating expenses	**4,054,450**	3,708,317

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. 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 and rationalizing IR related travel activity which was partly 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. Our office expenses in the nine month period ending September 30, 2017, were $1,727,262 compared to $1,203,598 in the nine month period ending September 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 nine month period ending September 30, 2017, our non-cash share based payment expenses were $255,184 compared to $109,223 for the nine month period ending September 30, 2016. We incurred share based payment expenses associated with the granting of options, restricted share units and performance share units to officers, employees and independent board members along with the vesting of previously granted share awards.

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

Commitments

As at September 30, 2017, we are committed to payments totaling $1,866,232 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 $813,507. 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)	**Sept.**	**June**	**March**	**Dec.**	**Sept.**	**June**	**March**	**Dec.**
Revenue	—	—	—	—	—	—	—	—
Net loss[2]	3,004	4,349	3,518	5,210	3,332	2,581	4,017	3,497
Basic and diluted loss per common share[2][3]	$0.02	$0.03	$0.03	$0.04	$0.03	$0.02	$0.03	$0.03
Total assets[3]	14,848	17,579	10,623	14,758	18,437	21,368	23,023	27,384
Total cash[1][3]	14,034	16,676	10,102	14,123	17,702	20,410	22,322	26,077
Total long-term debt	—	—	—	—	—	—	—	—
Cash dividends declared[4]	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 September 2017 and October 2015 are quarterly share based payment expenses of $148,447, $155,708, $133,889, $106,443, $98,369, $119,626, $81,640, and $248,101, respectively.

(3) We issued 19,413,500 common shares for net cash proceeds of $12.0 million in 2017 (2016 - 2,721,600 common shares for net cash proceeds of $0.9 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 nine month period ending September 30, 2017, we sold 2,167,500 common shares for gross proceeds of $1,479,065. We incurred share issue costs of $186,367.

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 nine month period ending September 30, 2017, we received cash proceeds of $343,440 with respect to the exercise of 801,000 options by former employees.

2016 Financing Activities

During the period between February 26 and September 30, 2016, we sold 2,621,600 common shares for gross proceeds of $1,339,378. We incurred share issue costs which included costs to establish our Canadian ATM facility of $486,842.

Liquidity

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

	September 30, 2017 $	**December 31, 2016 $**
Cash and cash equivalents	**14,033,644**	12,034,282
Short-term investments	**—**	2,088,800
Shareholders' equity	**12,066,298**	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.

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 to, subject to the respective terms and conditions, $4.6 million of which we have raised gross proceeds of approximately $2.9 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 approximately $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 2018, 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 September 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 counter-party 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 nine month period ending September 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 $36,946. 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 nine month period ending September 30, 2017 by approximately $13,089. 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 nine month period ending September 30, 2017 by approximately $4,570.

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

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

	U.S. dollars $	British pounds £	Euro €
Cash and cash equivalents	1,038,574	33,560	22,783
Accounts payable	(201,110)	(17,367)	—
	837,464	16,193	22,783

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 consolidated financial statements. Accounts payable are all due within the current operating period.

Other MD&A Requirements

We have 140,700,722 common shares outstanding at November 7, 2017. If all of our options, restricted share units and performance share units (9,876,366) and common share purchases warrants (16,445,000) were exercised or were to vest, we would have 167,022,088 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 September 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.
September 30, 2017 and 2016

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

	Notes	September 30, 2017 $	December 31, 2016 $
Assets			
Current assets			
Cash and cash equivalents	*3*	**14,033,644**	12,034,282
Short-term investments	*3*	**—**	2,088,800
Accounts receivable		**33,129**	54,406
Prepaid expenses		**438,150**	260,841
Total current assets		**14,504,923**	14,438,329
Non-current assets			
Property and equipment		**343,307**	319,955
Total non-current assets		**343,307**	319,955
Total assets		**14,848,230**	14,758,284
Liabilities And Shareholders' Equity			
Current Liabilities			
Accounts payable and accrued liabilities		**2,781,932**	4,068,664
Total current liabilities		**2,781,932**	4,068,664
Commitments	*7*		
Shareholders' equity			
Share capital Authorized: unlimited Issued:			
September 30, 2017 – 140,671,722			
December 31, 2016 – 121,258,222	*4*	**270,899,669**	262,321,825
Warrants	*4*	**3,617,900**	—
Contributed surplus	*5*	**26,887,579**	26,643,044
Accumulated other comprehensive income		**361,726**	554,060
Accumulated deficit		**(289,700,576)**	(278,829,309)
Total shareholders' equity		**12,066,298**	10,689,620
Total liabilities and equity		**14,848,230**	14,758,284

See accompanying notes

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

	Notes	Three Month Period Ending September 30, 2017 $	Three Month Period Ending September 30, 2016 $	Nine Month Period Ending September 30, 2017 $	Nine Month Period Ending September 30, 2016 $
Expenses					
Research and development	*5, 11, 12*	**1,726,726**	2,141,737	**6,913,470**	6,358,822
Operating	*5, 11, 12*	**1,309,607**	1,222,447	**4,054,450**	3,708,317
Operating loss		**(3,036,333)**	(3,364,184)	**(10,967,920)**	(10,067,139)
Interest		**31,759**	31,691	**96,637**	136,849
Loss before income taxes		**(3,004,574)**	(3,332,493)	**(10,871,283)**	(9,930,290)
Income tax expense		**168**	19	**16**	333
Net loss		**(3,004,406)**	(3,332,474)	**(10,871,267)**	(9,929,957)
Other comprehensive income items that may be reclassified to net loss					
Translation adjustment		**(126,846)**	32,545	**(192,334)**	(268,341)
Net comprehensive loss		**(3,131,252)**	(3,299,929)	**(11,063,601)**	(10,198,298)
Basic and diluted loss per common share	*6*	**(0.02)**	(0.03)	**(0.08)**	(0.08)
Weighted average number of shares (basic and diluted)	*6*	**139,515,885**	120,552,638	**129,441,461**	119,455,440

See accompanying notes

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

	Notes	Share Capital $	Warrants $	Contributed Surplus $	Accumulated Other Comprehensive Income $	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 other comprehensive loss		—	—	—	(268,341)	(9,929,957)	(10,198,298)
Issued pursuant to "At the Market" Agreement	*4*	1,339,378	—	—	—	—	1,339,378
Issued pursuant to incentive share award plan	*5*	41,000	—	(41,000)	—	—	—
Share issue costs	*4*	(486,842)	—	—	—	—	(486,842)
Share based compensation	*5*	—	—	299,635	—	—	299,635
As at September 30, 2016		262,218,228	—	26,536,601	492,637	(273,619,287)	15,628,179

	Notes	Share Capital $	Warrants $	Contributed Surplus $	Accumulated Other Comprehensive Income $	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 other comprehensive loss		—	—	—	(192,334)	(10,871,267)	(11,063,601)
Issued pursuant to "At the Market" Agreement	*4*	1,479,065	—	—	—	—	1,479,065
Issued pursuant to public offering	*4*	7,893,600	3,617,900	—	—	—	11,511,500
Issued pursuant to stock option plan	*5*	536,949	—	(193,509)	—	—	343,440
Share issue costs	*4*	(1,331,770)	—	—	—	—	(1,331,770)
Share based compensation	*5*	—	—	438,044	—	—	438,044
As at September 30, 2017		**270,899,669**	**3,617,900**	**26,887,579**	**361,726**	**(289,700,576)**	**12,066,298**

See accompanying notes

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

	Notes	Three Month Period Ending September 30, 2017 $	Three Month Period Ending September 30, 2016 $	Nine Month Period Ending September 30, 2017 $	Nine Month Period Ending September 30, 2016 $
Operating Activities					
Net loss for the period		**(3,004,406)**	(3,332,474)	**(10,871,267)**	(9,929,957)
Amortization - property and equipment		**20,591**	44,014	**70,315**	134,631
Share based compensation	*5, 11*	**148,447**	98,369	**438,044**	299,635
Unrealized foreign exchange gain		**(6,414)**	(49,400)	**(119,058)**	(152,019)
Net change in non-cash working capital	*10*	**(331,590)**	216,611	**(1,186,142)**	978,847
Cash used in operating activities		**(3,173,372)**	(3,022,880)	**(11,668,108)**	(8,668,863)
Investing Activities					
Acquisition of property and equipment		**(9,451)**	(4,851)	**(95,337)**	(10,553)
Redemption (purchase) of short-term investments		**—**	—	**2,088,800**	(27,823)
Cash (used in) provided by investing activities		**(9,451)**	(4,851)	**1,993,463**	(38,376)
Financing Activities					
Proceeds from "At the Market" equity distribution agreement	*4*	**733,171**	242,706	**1,292,698**	852,536
Proceeds from public offering	*4*	**—**	—	**10,366,098**	—
Proceeds from exercise of options	*5*	**48,090**	—	**343,440**	—
Cash provided by financing activities		**781,261**	242,706	**12,002,236**	852,536
(Decrease) increase in cash		**(2,401,562)**	(2,785,025)	**2,327,591**	(7,854,703)
Cash and cash equivalents, beginning of period		**16,676,298**	18,320,981	**12,034,282**	24,016,275
Impact of foreign exchange on cash and cash equivalents		**(241,092)**	76,773	**(328,229)**	(548,843)
Cash and cash equivalents, end of period		**14,033,644**	15,612,729	**14,033,644**	15,612,729

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 September 30, 2017, were authorized for issue in accordance with a resolution of the Board of Directors (the "Board") on November 7, 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; immuno-therapy combinations to produce adaptive immune responses and immune modulator (IMiD) combinations to facilitate innate 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 September 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 $12,313,008 (December 31, 2016 – $10,679,992). The current annual interest rate earned on these deposits is 1.01% (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 %
September 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	801,000	536,949	—	—
Issued pursuant to "At the Market" equity distribution agreement[(a)]	2,167,500	1,479,065	—	—
Issued pursuant to public offering[(b)]	16,445,000	7,893,600	16,445,000	3,617,900
Share issue costs	—	(1,331,770)	—	—
Balance, September 30, 2017	**140,671,722**	**270,899,669**	**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 September 30, 2017, we sold 2,167,500 (2016 - 2,621,600) common shares for gross proceeds of $1,479,065 (2016 - $1,339,378). We incurred share issue costs of $186,367 (2016 - $486,842).

(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 September 30, 2017:

Exercise Price $	Outstanding, Beginning of the Period	Granted During the Period	Outstanding, End of the Period	Weighted Average Remaining Contractual Life (years)
0.95	—	16,445,000	16,445,000	4.67

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 September 30:

	2017		2016	
	Stock Options	Weighted Average Exercise Price $	Stock Options	Weighted Average Exercise Price $
Outstanding, beginning of the period	**8,674,227**	**1.83**	8,561,394	2.17
Granted during the period	**295,000**	**0.45**	35,000	0.39
Forfeited during the period	**(702,000)**	**3.26**	(806,667)	3.39
Expired during the period	**(17,900)**	**2.25**	—	—
Exercised during the period	**(801,000)**	**0.43**	—	—
Outstanding, end of the period	**7,448,327**	**1.79**	7,789,727	2.03
Options exercisable, end of the period	**6,049,911**	**2.12**	5,681,393	2.63

The following table summarizes information about the stock options outstanding and exercisable at September 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 - $0.42	3,437,000	8.7	0.35	2,166,084	0.35
$0.51 - $0.80	428,000	8.1	0.66	300,500	0.72
$1.45 - $2.00	1,387,667	4.4	1.77	1,387,667	1.77
$2.13 - $3.89	1,089,660	2.1	3.23	1,089,660	3.23
$4.01 - $6.72	1,106,000	2.5	5.34	1,106,000	5.34
	7,448,327	6.0	1.79	6,049,911	2.12

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 issued 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	**1.06%**	0.56%
Expected hold period to exercise	**3.0 years**	3.0 years
Volatility in the price of the Company's shares	**92.43%**	89.49%
Rate of forfeiture	**3.67%**	3.67%
Dividend yield	**Nil**	Nil
Weighted average fair value of options	**$0.27**	$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. We have also issued RSU to certain officers and employees of the Company. Grants of RSU to certain officers and employees of the Company vest over a three year period. The following RSU are outstanding at September 30:

	2017	2016
Outstanding, beginning of the period	**1,322,829**	368,831
Granted during the period[(1)]	**205,210**	67,551
Vested, during the period	**—**	(100,000)
Outstanding, end of the period	**1,528,039**	336,382

(1) The weighted average fair value of the RSU granted was $0.57 in 2017 (2016 - $0.38).

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 September 30:

	2017	2016
Outstanding, beginning of the period	**840,000**	—
Granted during the period[(1)]	**60,000**	1,200,000
Vested, during the period	**—**	—
Outstanding, end of the period	**900,000**	1,200,000

(1) The weighted average fair value of the RSU granted was $0.35 in 2017 (2016 - $0.38).

We have reserved 14,067,172 common shares for issuance relating to outstanding stock options. Compensation expense related to stock options granted to employees, directors and consultants and restricted share units granted to independent directors and certain officers was $148,447 and $438,044 for the three and nine month periods ending September 30, 2017, respectively (2016 - $98,369 and $299,635, respectively).

Note 6: Loss Per Common Share

Loss per common share is calculated using the net loss for the three and nine month periods and the weighted average number of common shares outstanding for the three and nine month periods ending September 30, 2017 of 139,515,885 and 129,441,461, respectively (September 30, 2016 of 120,552,638 and 119,455,440, 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 $1,866,232 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. Annual payments under the terms of these leases are as follows:

	Amount $
Remainder of 2017	**71,542**
2018	**287,230**
2019	**251,996**
2020	**159,609**
2021	**43,130**
	813,507

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.

	September 30, 2017 $	December 31, 2016 $
Cash and cash equivalents	**14,033,644**	12,034,282
Short-term investments	—	2,088,800
Shareholders' equity	**12,066,298**	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 September 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 nine month period ending September 30, 2017 by approximately $36,946. 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 nine month period ending September 30, 2017 by approximately $13,089. The impact of a $0.10 increase in the value of the Euro against the Canadian dollar would have increased our net loss for the nine month period ending September 30, 2017 by approximately $4,570 .

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 September 30, 2017 are as follows:

	U.S. dollars $	**British pounds** £	**Euro** €
Cash and cash equivalents	1,038,574	33,560	22,783
Accounts payable	(201,110)	(17,367)	—
	837,464	16,193	22,783

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 September 30, 2017 $	Three Month Period Ending September 30, 2016 $	Nine Month Period Ending September 30, 2017 $	Nine Month Period Ending September 30, 2016 $
Change in:				
Accounts receivable	**28,980**	9,642	**21,277**	295,068
Prepaid expenses	**46,925**	173,729	**(177,309)**	149,928
Accounts payable and accrued liabilities	**(529,016)**	28,303	**(1,286,732)**	99,516
Non-cash impact of foreign exchange	**121,521**	4,937	**256,622**	434,335
Change in non-cash working capital related to operating activities	**(331,590)**	216,611	**(1,186,142)**	978,847

Other Cash Flow Disclosures

	Three Month Period Ending September 30, 2017 $	Three Month Period Ending September 30, 2016 $	Nine Month Period Ending September 30, 2017 $	Nine Month Period Ending September 30, 2016 $
Cash interest received	**31,759**	31,691	**96,637**	136,849
Cash taxes paid	**—**	(19)	**—**	(333)

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 September 30, 2017 $	Three Month Period Ending September 30, 2016 $	Nine Month Period Ending September 30, 2017 $	Nine Month Period Ending September 30, 2016 $
Included in research and development expenses:				
Realized foreign exchange (gain) loss	**(40,097)**	38,276	**(40,141)**	115,735
Unrealized non-cash foreign exchange (gain) loss	**(88,738)**	218,941	**(135,894)**	116,322
Non-cash share based payments	**56,757**	70,092	**182,860**	190,412
Included in operating expenses				
Amortization of property and equipment	**20,591**	44,014	**70,315**	134,631
Non-cash share based payments	**91,690**	28,277	**255,184**	109,223
Office minimum lease payments	**65,186**	22,691	**163,324**	108,660

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 September 30, 2017 $	Three Month Period Ending September 30, 2016 $	Nine Month Period Ending September 30, 2017 $	Nine Month Period Ending September 30, 2016 $
Short-term employee compensation and benefits	**477,800**	649,184	**1,588,602**	2,007,630
Termination benefits	**—**	—	**779,666**	—
Share-based payments	**128,161**	95,495	**339,824**	296,761
	605,961	744,679	**2,708,092**	2,304,391

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

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Directors

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