Financial Statements and Management's Discussion and Analysis

December 31, 2016

Oncolytics Biotech Inc.
TSX: ONC
OTCQX: ONCYF

Oncolytics Biotech® Inc. 2016 Message to Shareholders

Shortly after being appointed to the role of President and CEO of Oncolytics, I wrote a note to all stakeholders in which we committed to a comprehensive review and overhaul of our clinical development plan for REOLYSIN®. We further committed that, out of this review, we would articulate a clear and measureable clinical plan that contemplates a specific path to registration, and that we would work to do so rapidly. I am pleased to say that just a few short months later, we have made substantial progress and are successfully delivering on these commitments.

Strengthening the Team

A key contributor to our success over the last few months has been Dr. Andres Gutierrez, who was appointed to the role of Chief Medical Officer in November. He brings a broad range of immuno-oncology expertise to our team and has extensive experience in the design and implementation of clinical programs, including registration studies. He also has a long track record of interacting with regulatory bodies globally and establishing strong relationships with key opinion leaders. As part of our ongoing review, we have supplemented this internal expertise with that of independent third-party clinical, regulatory and statistics experts. We have worked together to analyze our growing library of randomized clinical data, which has helped form our evolving understanding of REOLYSIN's mechanism of action.

Building a Novel Immuno-Oncology Therapy

Based on much of the data received in the last 12 to 18 months, we now believe that REOLYSIN behaves like many other immuno-oncology agents, where patients may derive little or no benefit in terms of progression-free survival (PFS) or response rate (RR), but see a meaningful improvement in overall survival (OS). We further believe that REOLYSIN has multiple mechanisms of action that can be enhanced depending on the combination of therapies. Much of our focus through REOLYSIN's development has been on combinations with chemotherapy, which enhances the lysis, or destruction, of cancer cells and now appears to support a survival benefit. What we have also seen more recently is that REOLYSIN may support further stimulation of innate and adaptive immune responses.

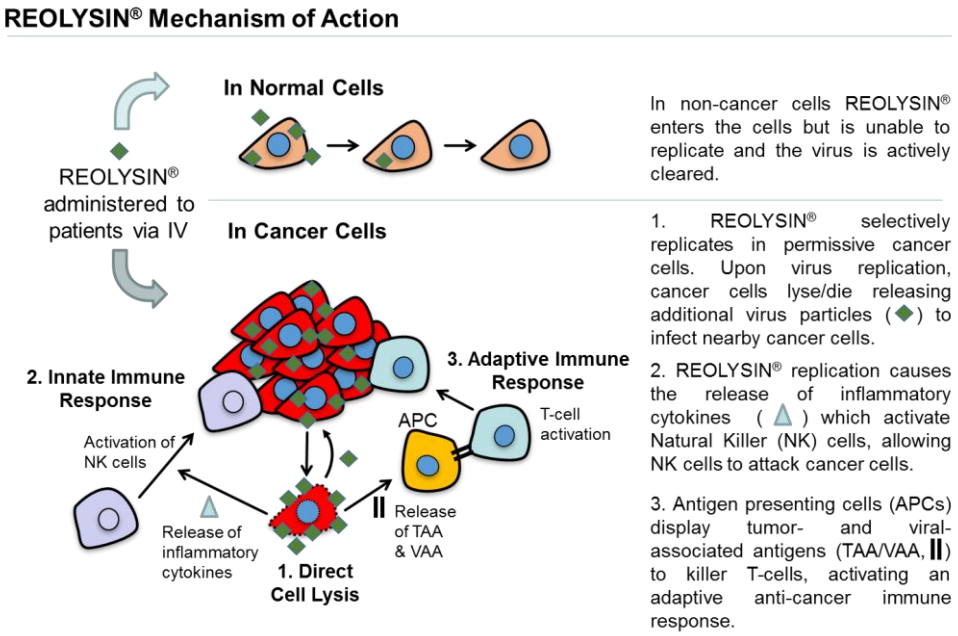
Growing Library of Randomized Clinical Data

In 2016, we reported data from a series of sponsored randomized studies that supported our thinking around REOLYSIN's mechanism of action. While these were initially designed by the sponsors several years ago, and all used PFS as the primary endpoint, they served to provide us with valuable data. In a U.S. based National Cancer Institute (NCI) randomized Phase 2 study of patients with pancreatic cancer (NCI-8601), we saw a higher percentage of patients surviving two years in the test arm versus the control arm. Patients that started in the control arm and crossed-over to the test arm also enjoyed enhanced survival benefit. In a randomized Phase 2 study sponsored by the Canadian Cancer Trials Group (CCTG, formerly the National Cancer Institute of Canada Clinical Trials Group) in advanced or metastatic colorectal cancer (IND 210), we also saw a trend to improvement in OS for female patients in the test arm versus the control arm based on an interim analysis.

Very recently, we announced that an abstract submitted to the American Association of Cancer Research Annual Meeting by CCTG covering results from IND 213, an open-label, randomized, non-blinded Phase 2 study to assess the therapeutic combination of intravenously-administered REOLYSIN given in combination with paclitaxel versus paclitaxel alone in patients with advanced or metastatic breast cancer had been accepted. Data will be presented at the AACR annual meeting in early April and we should also see other sponsored, randomized Phase 2 studies, managed by CCTG and the NCI, read out additional OS data in 2017.

Clinical Development Plan

Our clinical development plan is based on our growing library of clinical data and our understanding of how REOLYSIN acts as an immuno-oncology viral agent. The plan is made up of three paths, with each clearly based on a target element of REOLYSIN's mechanism of action: direct tumour lysis; innate immune response; and adaptive immune response. These mechanisms, working in concert, result in the lysis of cells and the release of chemical signals that attract immune cells to the tumour and may create an inflamed tumor phenotype. The result is the long-term education of the patient's immune system to identify and attack cancer cells.



Path #1 – Direct Tumour Lysis

Our first clinical development path focuses on direct tumour lysis and is based on the clinical data from our randomized chemotherapy combination trials. We have demonstrated a strong trend showing a two-year survival benefit in patients with pancreatic cancer in two clinical studies and are planning to take advantage of this survival data and existing orphan drug designations to seek regulatory advice in the U.S. and Europe to establish a clear path to registration in pancreatic cancer.

Path #2 – Innate Immune Response

The second path involves the combination of immunomodulatory drugs (IMiDS) with REOLYSIN to enhance the innate immune response against the tumor. We expect to be able to announce collaborations in this path in the second quarter of 2017 that combine REOLYSIN with IMiDS and investigate whether the addition of REOLYSIN can enhance the benefit of this class of agents.

Path #3 – Adaptive Immune Response

Our third clinical development path focuses on the adaptive immune response, a long-term, durable and learned response. This creates a vaccination-like response that, through lysis of the tumor by the virus, educates the body's immune cells to target and attack unique cancer antigens. We believe that REOLYSIN in combination with checkpoint inhibitors – immunological agents that enhance the adaptive immune response – will act synergistically to provide enhanced overall survival to patients. During 2016, we initiated the investigation of REOLYSIN in combination with KEYTRUDA®, an approved checkpoint inhibitor, in patients with pancreatic cancer. The primary objective of this study is to understand the safety profile of combining REOLYSIN with a checkpoint inhibitor and potentially provide a trend to increased efficacy.

The focus of Oncolytics will be to work towards product registration via the first path of the clinical development plan. The objectives of paths two and three are to enhance the exposure of REOLYSIN to leading pharmaceutical companies working in immuno-oncology and enhance the market opportunities for our agent; that process is underway.

Emerging Registration Pathway

Based on the data we have generated to date and future review of expected data, we believe we will have a defined registration pathway in the second quarter of 2017. In terms of next steps, we are working to set up an End-of-Phase 2 meeting with the U.S. FDA in order that we might discuss emerging data from these studies as soon as practicable. Our goal is to pursue a registration pathway that gives us the best possible chance of success and we intend to focus on overall survival as the expected primary endpoint.

An Exciting Year Ahead

In closing, I want to publicly recognize and thank all our shareholders for your ongoing commitment to Oncolytics. Many of you have been with us since the early days and I want to reassure you that creation of value remains a top priority for the entire team. I also want to thank our board of directors and all of our employees both new and old; your efforts have been instrumental in all we have accomplished recently. 2016 was a year of change for Oncolytics, but we think 2017 will be transformational for the Company. We remain very excited about our prospects for the year ahead and look forward to updating you on our progress in the coming quarters.

Sincerely,

/s/ Dr. Matt Coffey
President and CEO

MANAGEMENT DISCUSSION & ANALYSIS

2016

ONCOLYTICS BIOTECH INC.

MANAGEMENT DISCUSSION & ANALYSIS

2016

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March 9, 2017

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

BASIS OF PRESENTATION

Our Management Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be read in conjunction with our 2016 audited consolidated financial statements and notes thereto, which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). This MD&A along with our consolidated financial statements for the year ended December 31, 2016, were authorized for issue in accordance with a resolution of the Board of Directors (the "Board") on March 9, 2017.

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 reovirus, 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 US 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 2016

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, and unless, 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 began 2016 with an overall clinical program mainly comprised of six randomized Phase 2 clinical trials (our "Randomized Studies") and a program investigating the use of immuno-therapies. Towards the end of 2016, we adopted an evolving understanding of REOLYSIN and a new clinical development plan based on our growing library of clinical data and our understanding of how REOLYSIN acts as an immuno-oncology viral agent. The plan is made up of three paths, with each clearly based on a target element of REOLYSIN's mechanism of action: direct tumour lysis; innate immune response; and adaptive immune response. These mechanisms, working in concert, result in the lysis of cells and the release of chemical signals that attract immune cells to the tumour and results in an inflamed tumor phenotype. The result is the long-term education of the patient's immune system to identify and attack cancer cells.

We understand that REOLYSIN behaves like many other immuno-oncology agents, where patients may derive little or no benefit in terms of progression-free survival (PFS) or response rate (RR), but may see a meaningful improvement in overall survival (OS). In 2016, we reported data from a series of sponsored randomized studies that supported our thinking around REOLYSIN's mechanism of action. While these were initially designed by the sponsors several years ago, and all used PFS as the primary endpoint, they served to provide us with valuable data. In a U.S. based National Cancer Institute (NCI) randomized Phase 2 study of patients with pancreatic cancer (NCI-8601), we saw a higher percentage of patients surviving two years in the test arm versus the control arm. As well, we saw a higher percentage of two year survival in patients that started in the control arm and crossed-over to the test arm compared to those who did not cross over. In a randomized Phase 2 study sponsored by the Canadian Cancer Trials Group (CCTG, formerly the National Cancer Institute of Canada Clinical Trials Group) in advanced or metastatic colorectal cancer (IND 210), we also saw a trend to improvement in OS for female patients in the test arm versus the control arm based on an interim analysis.

Path #1 - Direct Tumour Lysis
Our first clinical development path focuses on direct tumour lysis and is based on the clinical data from our randomized chemotherapy combination trials. We have demonstrated a strong trend showing a two-year survival benefit in patients with pancreatic cancer in two clinical studies and are planning to take advantage of this survival data and existing orphan drug designations to seek regulatory advice in the U.S. and Europe to establish a clear path to registration in pancreatic cancer.

Path #2 - Innate Immune Response
The second path involves the combination of immune modulatory drugs (IMiDs) with REOLYSIN to enhance the innate immune response against the tumor. We expect to be able to announce collaborations in this path in the second quarter of 2017 that combine REOLYSIN with IMiDS and investigate whether the addition of REOLYSIN can enhance the benefit of this class of agents.

Path #3 - Adaptive Immune Response
Our third clinical development path focuses on the adaptive immune response, a long-term, durable and learned response. This creates a vaccination-like response that, through lysis of the tumor by the virus, educates the body's immune cells to target and attack unique cancer antigens. We believe that REOLYSIN in combination with checkpoint inhibitors - immunological agents that enhance the adaptive immune response - will act synergistically to provide enhanced overall survival to patients. Early in 2016, we announced that the first patients had been treated in our Phase 1b study of pembrolizumab (KEYTRUDA®) in combination with REOLYSIN and chemotherapy in patients with advanced pancreatic adenocarcinoma. This study is enrolling patients 18 years or older with histologically confirmed advanced or metastatic pancreatic adenocarcinoma who have failed, or did not tolerate, first line treatment. It is an open-label Phase 1b trial designed to determine the safety and dose-limiting toxicities of REOLYSIN® and chemotherapy (gemcitabine or irinotecan or fluorouracil, at the treating physician's preference) in combination with pembrolizumab. Secondary endpoints include overall response rate and progression free survival by immune-related response criteria; overall survival; and effects of REOLYSIN and pembrolizumab when administered in combination as determined by analysis of pre- and post-treatment treatment biopsies and blood-based immune markers. Following an initial six to nine patient safety run-in, up to an additional 15 patients may be enrolled for further evaluation of safety and efficacy.

Our focus will be to work towards product registration via the first path of the clinical development plan. The objectives of paths two and three are to enhance the exposure of REOLYSIN to leading pharmaceutical companies working in immuno-oncology and enhance the market opportunities for our agent; that process is underway.

Path #1 - Direct Tumour Lysis - Clinical Trial Results

Randomized Colorectal Cancer Study

In 2016, we announced preliminary data from our CCTG randomized Phase 2 clinical trial of REOLYSIN in combination with FOLFOX-6 and bevacizumab (Avastin®) in patients with advanced or metastatic colorectal cancer. This preliminary analysis was presented at the June 2016 American Society of Clinical Oncology ("ASCO") Annual Meeting held in Chicago, IL.

	Objective Response Rate (%)		Progression Free Survival (months)		Median Overall Survival (months)[1]	
	Test	**Control**	**Test**	**Control**	**Test**	**Control**
Female Patients	63.2 (n=19)	23.8 (n=21)	7.43 (n=19)	8.08 (n=21)	19.3 (n=19)	14.5 (n=21)
Male Patients	46.9 (n=32)	41.9 (n=31)	7.33 (n=32)	9.26 (n=31)	15.4 (n=32)	15.7 (n=31)
Overall	52.9 (n=51)	34.6 (n=52)	7.33 (n=51)	9.13 (n=52)	15.57 (n=51)	15.21(n=52)

Note: 1. This was an interim analysis, as 62 (60.2%) patients out of a total of 103 patients were alive at the time of data cut-off.

The abstract authored by CCTG, reported that the overall test arm had an objective response rate of 52.9% (n=51) versus 34.6% (n=52) in the control arm (p=0.06) and reported on a pre-planned analysis, as specified in the protocol, of patient responses by gender. The female patients in the test arm had an objective response rate of 63.2% (n=19) versus 23.8% (n=21) in the control arm (p=0.0054). The male patients in the test arm had an objective response rate of 46.9% (n=32) versus 41.9% (n=31) in the control arm (p=0.6747). The abstract also noted that, of grade 3 or higher adverse events, there was less abdominal pain (3.5% versus 17.3%, p=0.02), more hypertension (26.3% versus 3.8%, p=0.001) and more proteinuria (22.8% versus 1.9%, p=0.001) in the test arm than the control arm.

Randomized Lung Cancer Study

In 2016, we announced that the CCTG presented preliminary data from our randomized CCTG Phase 2 lung cancer study of REOLYSIN. Patients with non-squamous cell histology were treated with REOLYSIN given in combination with pemetrexed (Arm A) versus pemetrexed alone (Arm B). Patients with squamous cell histology were treated with REOLYSIN given in combination with docetaxel (Arm C) versus docetaxel alone (Arm D). This preliminary analysis was presented at the June 2016 Annual ASCO meeting held in Chicago, IL.

	Median Progression Free Survival (months)			Median Overall Survival (months)		
	Test Arms (Arm A+C) (95% CI)	**Control Arms (Arm B+D) (95% CI)**	**Hazard Ratio (95% CI)**	**Test Arms (Arm A+C) (95% CI)**	**Control Arms (Arm B+D) (95% CI)**	**Hazard Ratio (95% CI)**
EGFR[1]	5.16 (0.76-8.71) (n=8)	4.63 (1.51-7.03) (n=5)	0.54 (0.13-2.22)	18.66 (1.38-26.84) (n=8)	7.49 (4.63-16.79) (n=5)	0.37 (0.08-1.71)
TP53[1]	4.07 (2.63-6.21) (n=24)	2.40 (1.28-2.99) (n=21)	0.58 (0.31-1.08)	8.74 (6.83-13.93) (n=23)	6.14 (3.02-8.18) (n=21)	0.55 (0.28-1.07)
Female Patients	3.98 (2.66-5.39) (n=41)	2.84 (1.51-4.34) (n=34)	0.59 (0.36-0.98)	8.38 (5.36-10.38) (n=41)	7.59 (5.59-10.45) (n=34)	0.85 (0.49-1.46)
Male Patients	2.56 (1.45-3.94) (n=36)	2.69 (2.46-4.24) (n=41)	1.34 (0.83-2.14)	7.66 (4.37-10.94) (n=36)	7.26 (4.86-10.78) (n=41)	1.0 (0.60-1.68)
Overall	2.96 (2.56-4.17) (n=77)	2.83 (2.50-3.98) (n=75)	0.93 (0.66-1.31)	8.12 (5.85-9.40) (n=77)	7.39 (5.72-9.43) (n=75)	0.94 (0.64-1.37)

Note: 1. Mutated.

The investigators concluded that REOLYSIN was reasonably well tolerated at the dose and schedule administered with pemetrexed or docetaxel and that no new safety signals were seen. They also noted it was of interest that female patients in the REOLYSIN-containing arms did better than in the standard treatment arms and that in a subgroup analysis that EGFR mutation and p53 mutation status was associated with a trend to improved progression free survival.

Randomized Pancreatic Cancer Study

In 2016, we further analyzed the overall survival data from our randomized Phase 2 clinical trial in combination with carboplatin and paclitaxel in patients with pancreatic cancer (NCI-8601). The study was sponsored by the NCI. Our updated analysis is based on data collected up to August 2, 2016.

We performed an intent-to-treat analysis of overall survival on patients with confirmed treatment regimes, as assessed by the percentage of patients surviving for two and three years. The analysis showed a higher percentage of patients surviving two and three years for patients randomized to the test arm or for those patients that crossed over to the test arm compared to those patients that stayed on the control arm.

Arm	Median OS (months)	1-year OS (%)	2-year OS (%)	3-year OS (%)
Stayed on Control (n = 20)	7.0	28	6	—
Randomized to Test (n = 36)	7.9	34	20	7
Crossed over to Test (n = 17)	11.8	33	13	7

Randomized Ovarian Cancer

In 2016, we announced an update to our randomized Phase 2 clinical trial investigating REOLYSIN in combination with paclitaxel in patients with ovarian cancer (GOG-0186H). The study is sponsored by the NCI and the update included data from a Gynecologic Oncology Group ("GOG") study summary report and followed a presentation made by the principal investigator regarding the study at the Society of Gynecologic Oncology's Annual Meeting on Women's Cancer which ran from March 19-22, 2016 in San Diego, CA.

A PFS analysis, stratified by measurable disease and platinum-free interval (test arm: n = 54, 43 events (progressions), and control arm: n = 54, 48 events), was performed and demonstrated a median PFS of 4.4 months for the test arm, and 4.3 months for the control arm.

An interim OS analysis (test arm: n = 54, 32 events (deaths), and control arm: n = 54, 32 events (deaths)) was performed and demonstrated a median OS of 12.9 months for the test arm, and 15.0 months for the control arm. The OS was an interim analysis, as 44 (41%) patients out of a total of 108 patients were alive at the time of analysis.

This study is a randomized Phase 2 clinical trial of paclitaxel versus paclitaxel plus REOLYSIN in patients with persistent or recurrent, ovarian, fallopian tube or primary peritoneal cancer. Patients received paclitaxel on days 1, 8 and 15 of each 28-day treatment cycle, with either REOLYSIN (test arm) or placebo (control arm) administered on days 1 through 5. One hundred and eight patients were randomized (1:1, 54 patients in the control arm, 54 patients in the test arm). The NCI study did not stratify on entry according to PD-L1 levels or infiltrating CD8+ T lymphocyte levels, nor were either of those levels measured post-treatment. However, pre-treatment tumour biopsies were taken from the majority of patients. The primary objectives are PFS and toxicity. The secondary objectives are median OS by treatment group, median PFS by treatment group, and tumour response as measured by RECIST criteria and CA-125 antigen levels.

Manufacturing and Process Development

Throughout 2016, 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 2016, we had been issued over 415 patents including 61 US 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

Canadian "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 the distribution agreement, 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 year ending December 31, 2016, we sold 3,006,600 commons shares for gross proceeds of $1,456,296. We incurred share issue costs which included costs to establish our Canadian ATM facility of $500,163.

Financial Impact

We estimated that our cash requirements for 2016 to fund our operations would be approximately between $14.0 - $15.0 million. Our cash usage for the year was $12,477,613 for operating activities and $23,527 for the acquisition of property and equipment. Our net loss for the year was $15,139,979.

Cash Resources

We exited 2016 with cash, cash equivalents and short-term investments totaling $14,123,082 (see *"Liquidity and Capital Resources")*.

Expected REOLYSIN Development For 2017

Our planned 2017 development activity for REOLYSIN focuses on our clinical development plan and is made up of our three clinical paths, manufacturing, and intellectual property programs. Our primary objective in 2017 is to work towards product registration using chemo-therapy combinations while investigating synergies with immuno-therapies including checkpoint inhibitors and immune modulators. We expect any expansion with immunotherapies to be done through research collaborations requiring us to mainly provide product.

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 approximately $12 million, but will depend on our ultimate clinical program. (see *"Liquidity and Capital Resources"*).

Our Accounting Policies

In preparing our financial statements we use IFRS as issued by the International Accounting Standards Board. IFRS requires that we make certain estimates, judgments and assumptions that we believe are reasonable based upon the information available in selecting our accounting policies. Our selection of accounting policies, along with our estimates and assumptions affect the reported amounts of our assets and liabilities at the date of the financial statements and the reported amounts of expenses during the periods presented.

Critical Accounting Policies

In preparing our financial statements, we are required to make certain estimates, judgments and assumptions that we believe are reasonable based upon the information available. These estimates and assumptions affect the reported amounts of assets at the date of the financial statements and the reported amounts of expenses during the periods presented. Significant estimates are used for, but not limited to, the treatment of our research and development expenditures, the assessment of realizable value of long-lived assets and the calculation of stock based compensation (see Note 4 *" Significant Judgments, Estimates and Assumptions*") of our audited consolidated financial statements.

The significant accounting policies which we believe are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

Research and Development

Research costs are expensed as incurred. Development costs that meet specific criteria related to technical, market and financial feasibility will be capitalized. To date, all of our activities have been expensed.

We account for our research and development activity in conjunction with the IAS 38 *"Intangible Assets"* of IFRS. IAS 38 makes a distinction between the research phase of a project and the development phase of an internal project and requires that all costs incurred during the research phase are to be expensed. However, an intangible asset arising from the development phase of an internal project shall be recognized if, and only if, we can demonstrate all of the following:

1. The technical feasibility of completing the intangible asset so that it will be available for use or sale.
2. Our intention to complete the intangible asset and use or sell it.
3. Our ability to use or sell the intangible asset.
4. How the intangible asset will generate probable future economic benefits. Among other things, that we can demonstrate the existence of a market for our product that results from the use of the intangible asset or of the intangible asset itself.
5. The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
6. The ability to measure reliably the expenditure attributable to the intangible asset during its development.

We believe that we do not meet all of the above criteria and for this reason, our research and development costs are expensed and not capitalized. We will monitor our progress against these criteria and will capitalize our development costs once we can conclude we meet the above criteria.

Future Accounting Changes

Accounting Standards and Interpretations Issued but Not Yet Effective

IFRS 9 - *Financial Instruments*
In July 2014, on completion of the impairment phase of the project to reform accounting for financial instruments and replace IAS 39 *Financial Instruments: Recognition and Measurement*, the IASB issued the final version of IFRS 9 *Financial Instruments*. IFRS 9 includes guidance on the classification and measurement of financial assets and financial liabilities and impairment of financial assets (i.e. recognition of credit losses).

Under the classification and measurement requirements for financial assets, financial assets must be classified and measured at either amortized cost or at fair value through profit or loss or through other comprehensive income, depending on the basis of the entity's business model for managing the financial asset and the contractual cash flow characteristics of the financial asset.

The classification requirements for financial liabilities are unchanged from IAS 39. IFRS 9 requirements address the problem of volatility in net earnings arising from an issuer choosing to measure certain liabilities at fair value and require that the portion of the change in fair value due to changes in the entity's own credit risk be presented in other comprehensive income, rather than within net earnings.

The new requirements for impairment of financial assets introduce an expected loss impairment model that requires more timely recognition of expected credit losses. IAS 39 impairment requirements are based on an incurred loss model where credit losses are not recognized until there is evidence of a trigger event. IFRS 9 is effective for annual periods beginning on or after January

1, 2018 with early application permitted. We are assessing the impact of adopting this standard on our consolidated financial statements.

IFRS 16 - *Leases*
In January 2016, the IASB issued IFRS 16 - *Leases* ("IFRS 16"), which replaces IAS 17 - *Leases* ("IAS 17") and related interpretations. IFRS 16 provides a single lessee accounting model, requiring the recognition of assets and liabilities for all leases, unless the lease term is 12-months or less or the underlying asset has a low value. IFRS 16 substantially carries forward the lessor accounting in IAS 17 with the distinction between operating leases and finance leases being retained. IFRS 16 will be applied retrospectively for annual periods beginning on or after January 1, 2019. Early adoption is permitted under certain circumstances. We are assessing the potential impact of adopting this standard on our consolidated financial statements.

Significant Estimates

Share Based Payments
As required by IFRS, share based payments are to be recorded at their fair value at the date of grant. We have chosen to use the Black Scholes Option Pricing Model ("Black Scholes" or the "Model") to calculate the fair value of our stock options and warrants. Though there are other models available to calculate the option values (for example, the binomial model), Black Scholes is currently widely used and accepted by other publicly traded companies. Therefore, we have concluded that Black Scholes is the appropriate option pricing model to use for our stock options at this time.

Black Scholes uses inputs in its calculation of fair value that require us to make certain estimates and assumptions. For 2016, we used the following weighted average assumptions for the calculation of the fair value of the stock options granted during the year:

	2016
Risk-free interest rate	**0.82%**
Expected hold period to exercise	**3.0 years**
Volatility in the price of the Company's shares	**94.84%**
Rate of forfeiture	**3.67%**
Dividend yield	**Nil**
Weighted average fair value of options	**$0.17**

A change in these estimates and assumptions will impact the value calculated by the model. For instance, the volatility in the price of our shares is based on the quoted trading price. We assume that weekly trading prices best reflect our trading price volatility. However, an entity can choose between daily, weekly, or monthly trading prices in the volatility calculation.

The Model also uses an expected hold period to exercise in its calculation of fair value. When we are estimating the expected hold period to exercise we take into consideration past history, the current trading price, the volatility of our common shares and the progress in our clinical program. Our conclusions resulted in an expected hold period for the stock options issued in 2016 to be 3.0 years and we believe this is an appropriate estimate. However, our options have a 10-year life and given the fluctuations in our stock price the expected hold period could be different.

Consequently, in complying with IFRS and selecting what we believe are the most appropriate assumptions under the circumstances, we have recorded non-cash share based payment expense for the year of $406,078. However, given the above discussion, this expense could have been different and still be in accordance with IFRS.

Selected Annual Information

	2016 $	2015 $	2014 $
Revenue	—	—	—
Consolidated net loss[1]	**(15,139,979)**	(13,722,995)	(18,619,335)
Basic and diluted loss per share[1], [2]	**(0.13)**	(0.12)	(0.21)
Total assets [2]	**14,758,284**	27,383,798	17,193,190
Cash dividends declared per share[3]	**Nil**	Nil	Nil

Notes:

(1) Included in consolidated net loss and loss per common share for 2016, 2015, and 2014 are share based payment expenses of $406,078, $429,537 and $980,325, respectively.

(2) We issued 3,106,600 common shares for net cash proceeds of $1.0 million in 2016 (2015 - 24,639,128 common shares for net cash proceeds of $23.7 million; 2014 - 8,708,676 common shares for net cash proceeds of $9.0 million).

(3) We have not declared or paid any dividends since incorporation.

Results of Operations

Net loss for the year was $15,139,979 compared to $13,722,995 and $18,619,335 for the years ending December 31, 2015 and December 31, 2014, respectively.

Research and Development Expenses ("R&D")

	2016 $	2015 $	2014 $
Clinical trial expenses	**1,620,114**	1,323,610	4,983,644
Manufacturing and related process development expenses	**1,725,835**	2,306,024	2,705,296
Intellectual property expenditures	**1,096,097**	1,032,227	1,077,552
Research collaboration expenses	**369,469**	698,909	621,936
Other R&D expenses	**4,553,816**	4,098,180	3,703,798
Scientific research and development refund	**(1,203)**	(62,144)	(84,762)
Foreign exchange loss (gain)	**171,960**	(1,051,958)	228,130
Share based payments	**233,919**	257,016	588,658
Research and development expenses	**9,770,007**	8,601,864	13,824,252

Clinical Trial Program

Clinical trial expenses include those costs associated with our Clinical Development Plan which primarily included our randomized phase 2 studies investigating cancer cell lysis (Path #1) and adaptive immune response (Path #3). Included in clinical trial expenses are direct patient enrollment costs, contract research organization ("CRO") expenses, clinical trial site selection and initiation costs, data management expenses and other costs associated with our clinical trial program.

	2016 $	2015 $	2014 $
Clinical trial expenses	**1,620,114**	1,323,610	4,983,644

During 2016, our clinical trial expenses were $1,620,114 compared to $1,323,610 and $4,983,644 for the years ended December 31, 2015 and December 31, 2014, respectively. In 2016, our clinical activities mainly related to the patient enrollment in our checkpoint inhibitor pancreatic cancer study investigating pembrolizumab (KEYTRUDA®) in combination with REOLYSIN along with costs

associated with the completion of enrollment in our randomized Phase 2 studies. As well, during the three year period 2014 - 2016 we benefited from the use of Third Party Trials which has allowed us to operate a broad clinical program at a lower overall cost.

In 2015, our clinical trial program activities declined compared to 2014 as we completed enrollment in our Randomized Studies and closed out fully enrolled clinical trials.

We 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 immune modulators (IMiDs).

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

M&P expenses include product manufacturing and process development activities. Product manufacturing expenses include third party direct manufacturing costs, quality control testing, fill, label and packaging costs and are net of any recoveries that are received from any R&D collaborators. Process development expenses include costs associated with studies that examine components of our manufacturing process looking for improvements and costs associated with the creation of our process validation master plan and related conformity testing.

	2016 $	2015 $	2014 $
Product manufacturing expenses	**1,162,446**	1,618,165	1,713,649
Process development expenses	**563,389**	687,859	991,647
Manufacturing and related process development expenses	**1,725,835**	2,306,024	2,705,296

Our M&P expenses for 2016 were $1,725,835 compared to $2,306,024 and $2,705,296 for the years ending December 31, 2015 and December 31, 2014. During 2016, our production manufacturing activities have mainly related to supplying our clinical program with sufficient product including related shipping and storage activities. These costs have been partially offset by recoveries from a development collaboration. During 2015, our production manufacturing activities remained relatively consistent compared to 2014 and mainly related to supplying our Clinical Programs with sufficient REOLYSIN. These activities also included the fill, labeling and lot release testing of product and the shipping and storage of our bulk and vialed product.

Our process development expenses for 2016 were $563,389 compared to $687,859 and $991,647 for the years ending December 31, 2015 and December 31, 2014, respectively. During the years ending 2016, 2015, and 2014 our process development activities focused on our validation master plan. In 2016, these activities included stability, scale up and process optimization studies. In 2015 and 2014, our process development activities also included assay development and validation studies.

We 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

Intellectual property expenses include legal and filing fees associated with our patent portfolio.

	2016 $	2015 $	2014 $
Intellectual property expenses	**1,096,097**	1,032,227	1,077,552

Our intellectual property expenses for 2016 were $1,096,097 compared to $1,032,227 and $1,077,552 for the years ending December 31, 2015 and December 31, 2014, respectively. The change in intellectual property expenditures reflects the timing of filing costs associated with our expanded patent base. At the end of 2016, we had been issued over 415 patents including 61 US 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

Research collaborations are intended to expand our intellectual property related to REOLYSIN and identify potential licensing opportunities arising from our technology base.

	2016 $	2015 $	2014 $
Research collaborations	**369,469**	698,909	621,936

During 2016, our research collaboration expenses were $369,469 compared to $698,909 and $621,936 for the years ending December 31, 2015 and December 31, 2014, respectively. In 2016, our research collaborations included biomarker studies along with studies investigating the interaction of the immune system and REOLYSIN. In 2015 and 2014, our research collaborations also included the use of the reovirus as a co-therapy with existing chemotherapeutics and radiation.

We 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

Other research and development expenses include compensation expenses for employees (excluding stock based compensation), consultant fees, travel and other miscellaneous R&D expenses.

	2016 $	2015 $	2014 $
R&D consulting fees	**186,221**	229,427	247,685
R&D salaries and benefits	**4,138,235**	3,388,272	2,989,970
Other R&D expenses	**229,360**	480,481	466,143
Other research and development expenses	**4,553,816**	4,098,180	3,703,798

In 2016, our Other Research and Development expenses were $4,553,816 compared to $4,098,180 and $3,703,798 for the years ending December 31, 2015 and December 31, 2014, respectively. During the years ending 2016, 2015 and 2014, our Other Research and Development activities focused on supporting our Clinical Program which includes our Randomized Program, our Checkpoint Inhibitor Program along with other Third Party trials and clinical trials sponsored by Oncolytics. R&D salaries and benefits in 2016 included a retirement allowance of $1,330,828 paid to the previous Chief Executive Officer in November 2016. Normalizing for the allowance, our R&D salaries and benefits declined compared to 2015 as a result of a drop in head count that occurred during the second half of 2015. With the completion of enrollment in our CCTG trials in 2015 and the close out of completed Company sponsored studies, our Other R&D expenses continued to decline. As well, in 2014, cash bonuses were not paid to officers or employees but were paid in 2015 and 2016.

Normalizing for the retirement allowance, we expect that our Other R&D expenses in 2017 will remain consistent with 2016.

Scientific Research and Development Refund

	2016 $	2015 $	2014 $
Scientific research and development refund	**(1,203)**	(62,144)	(84,762)

In 2016, 2015, and 2014, we received Alberta and Quebec scientific research and development refunds totaling $1,203, $62,144, and $84,762, respectively. During the three year period 2014-2016, our qualified expenditures for scientific research and development refunds in Canada have declined.

Foreign Exchange (Gain) Loss

	2016 $	2015 $	2014 $
Foreign exchange (gain) loss	**171,960**	(1,051,958)	228,130

For the year ending December 31, 2016, our foreign exchange (gain) loss was $171,960 compared to $(1,051,958) for the year ending December 31, 2015 and $228,130 for the year ending December 31, 2014. The foreign exchange losses incurred in 2016 and 2014 were primarily a result of the fluctuations in the US dollar, Euro and Pound Sterling exchange rates. In 2015, our foreign exchange gain was primarily a result of the strengthening of the US dollar and that the proceeds from our financing activities were in US dollars.

Share Based Payments

	2016 $	2015 $	2014 $
Share based payments	**233,919**	257,016	588,658

Non-cash share based payments for the year ending December 31, 2016, was $233,919 compared to $257,016 and $588,658 for the years ending December 31, 2015 and December 31, 2014, respectively. We incurred stock based compensation associated with the grant of stock options and performance share units to employees associated with our research and development activities.

Operating Expenses

	2016 $	2015 $	2014 $
Public company related expenses	**3,172,676**	2,932,436	2,761,374
Office expenses	**2,017,432**	2,030,469	1,682,152
Amortization of property and equipment	**162,233**	180,411	163,501
Share based payments	**172,159**	172,521	391,667
Operating expenses	**5,524,500**	5,315,837	4,998,694

Public company related expenses include costs associated with investor relations and business development activities, legal and accounting fees, corporate insurance, director fees and transfer agent and other fees relating to our U.S. and Canadian stock listings. In 2016, we incurred public company related expenses of $3,172,676 compared to $2,932,436 and $2,761,374 for the years ending December 31, 2015 and December 31, 2014, respectively. In 2016, our public company related expenses increased due to investor relations activities compared to 2015. In 2015, the costs associated with our public company listing fees, our investor relations activities, associated professional fees and the cost of our Annual General Meeting increased compared to 2014.

Office expenses include compensation costs (excluding share based payments), office rent, and other office related costs. In 2016, we incurred office expenses of $2,017,432 compared to $2,030,469 and $1,682,152 for the years ending December 31, 2015 and December 31, 2014, respectively. In 2016 and 2015, our office expenses remained relatively consistent. In 2015, our office expenses increased compared to 2014 mainly due to the cash bonuses paid to officers and employees.

In 2016, our non-cash share based payment expenses were $172,159 compared to $172,521 and $391,667 for the year ending December 31, 2015 and December 31, 2014, respectively. In 2016, 2015 and 2014, we incurred stock based compensation associated with stock option grants to officers and employees, grants of restricted share units to the board of directors, grants of performance share units to certain officers and the vesting of previously granted stock options.

We expect our operating expenses in 2017 to decrease compared to 2016.

Summary of Quarterly Results

	2016				2015			
	Dec.	Sept.	June	March	Dec.	Sept.	June	March
Revenue	—	—	—	—	—	—	—	—
Net loss[2]	5,210	3,332	2,581	4,017	3,497	2,824	3,850	3,552
Basic and diluted loss per common share[2]	$ 0.04	$ 0.03	$ 0.02	$ 0.03	$ 0.03	$ 0.02	$ 0.03	$ 0.04
Total assets[3]	14,758	18,437	21,368	23,023	27,384	31,001	33,190	31,445
Total cash[1], [3]	14,123	17,702	20,410	22,322	26,077	30,023	32,079	30,639
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 December 2016 and January 2015 are quarterly share based payment expenses (recovery) of $106,443, $98,369, $119,626, $81,640, $248,101, $10,791, $55,675, and $114,970, respectively.
(3) We issued 3,106,600 common shares for net cash proceeds of $1.0 million in 2016 (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.

Fourth Quarter

Statement of loss for the three month period ended December 31, 2016 and 2015:

For the three month periods ending December 31,	2016 $	2015 $
Expenses		
Research and development	**3,411,185**	1,999,987
Operating	**1,816,183**	1,535,025
Loss before the following	**(5,227,368)**	(3,535,012)
Interest	**27,053**	44,546
Loss before income taxes	**(5,200,315)**	(3,490,466)
Income taxes	**(9,707)**	(6,456)
Net loss	**(5,210,022)**	(3,496,922)
Other comprehensive gain (loss) - translation adjustment	**61,423**	103,875
Net comprehensive loss	**(5,148,599)**	(3,393,047)
Basic and diluted loss per common share	**(0.04)**	(0.03)
Weighted average number of shares (basic and diluted)	**121,145,249**	118,121,424

Fourth Quarter Review of Operations

For the three month period ended December 31, 2016 our net loss was $5,210,022 compared to $3,496,922 for the three month period ended December 31, 2015.

Research and Development Expenses ("R&D")

	2016 $	2015 $
Clinical trial expenses	**184,755**	202,214
Manufacturing and related process development expenses	**450,149**	185,104
Intellectual property expenses	**269,025**	217,097
Research collaboration expenses	**177,794**	199,118
Other R&D expenses	**2,346,052**	1,291,464
Scientific research and development refund	**—**	344
Foreign exchange (gain)	**(60,097)**	(262,150)
Share based payments	**43,507**	166,796
Research and development expenses	**3,411,185**	1,999,987

Clinical Trial Expenses

	2016 $	2015 $
Clinical trial expenses	**184,755**	202,214

During the fourth quarter of 2016, our clinical trial expenses were $184,755 compared to $202,214 for the fourth quarter of 2015. In the fourth quarter of 2016, our clinical trial program activities related primarily to the patient enrollment in our checkpoint inhibitor pancreatic cancer study investigating pembrolizumab (KEYTRUDA®) in combination with REOLYSIN. As well, we incurred costs associated with the completion of enrollment in our other Company sponsored clinical trials. In the fourth quarter of 2015, our clinical trial program activities related to completing enrollment in our Randomized Studies and closing out fully enrolled clinical trials while implementing our Clinical Development Plan.

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

	2016 $	2015 $
Product manufacturing expenses	**353,605**	57,319
Process development expenses	**96,544**	127,785
Manufacturing and related process development expenses	**450,149**	185,104

During the fourth quarter of 2016, our M&P expenses were $450,149 compared to $185,104 for the fourth quarter of 2015. During the fourth quarter of 2016, our product manufacturing costs mainly related to shipping and storage costs of our bulk and vialed product. During the fourth quarter of 2015, our product manufacturing costs also related to the fill, labeling and lot release testing of product to be used in our clinical trial program. In 2015, these costs were partially offset by recoveries from a development collaboration.

Our process development activity for the fourth quarter of 2016 related to stability studies compared to assay development, optimization, validation and stability studies in the fourth quarter of 2015.

Intellectual Property Expenses

	2016 $	2015 $
Intellectual property expenses	**269,025**	217,097

Our intellectual property expenses for the fourth quarter of 2016 were $269,025 compared to $217,097 for the fourth quarter of 2015. The change in intellectual property expenditures reflects the timing of filing costs associated with our expanded patent base. At the end of the fourth quarter of 2016, we had been issued over 415 patents including 61 US and 20 Canadian patents, as well as issuances in other jurisdictions.

Research Collaboration Expenses

	2016 $	2015 $
Research collaboration expenses	**177,794**	199,118

Our research collaboration expenses were $177,794 in the fourth quarter of 2016 compared to $199,118 for the fourth quarter of 2015. During the fourth quarter of 2016, our research collaborations were primarily focused on biomarker studies. During the fourth quarter of 2015, our research collaborations included biomarker studies along with studies investigating the interaction of the immune system and REOLYSIN and the use of REOLYSIN as a co-therapy with existing chemotherapeutics and radiation.

Other Research and Development Expenses

	2016 $	2015 $
R&D consulting fees	**45,190**	63,203
R&D salaries and benefits	**2,225,080**	1,138,266
Other R&D expenses	**75,782**	89,995
Other research and development expenses	**2,346,052**	1,291,464

Our other research and development expenses were $2,346,052 in the fourth quarter of 2016 compared to $1,291,464 in the fourth quarter of 2015. In the fourth quarter of 2016, our salaries and benefits costs included a retirement allowance of $1,330,828 paid to the previous chief executive officer.

Share Based Payments

	2016 $	2015 $
Share based payments	**43,507**	166,796

During the fourth quarters of 2016 and 2015, we incurred share based payment expense associated with the grant of stock options to officers and employees associated with our research and development activities.

Operating Expenses

	2016 $	2015 $
Public company related expenses	**911,811**	737,889
Office expenses	**813,834**	670,163
Amortization of property and equipment	**27,602**	45,668
Share based payments	**62,936**	81,305
Operating expenses	**1,816,183**	1,535,025

Our operating expenses in the fourth quarter of 2016 were $1,816,183 compared to $1,535,025 for the fourth quarter of 2015. 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 fourth quarter of 2016 our public company related expenses were $911,811 compared to $737,889 for the fourth quarter of 2015. The increase was due to an increase in professional fees in the fourth quarter of 2016 compared to the fourth quarter of 2015.

Office expenses include compensation costs (excluding share based payments), office rent, and other office related costs. During the fourth quarter of 2016, our office expenses were $813,834 compared to $670,163 for the third quarter of 2015. During the fourth quarter of 2016, compensation costs increased as a result of severance payments to an employee.

Liquidity and Capital Resources

2016 Financing Activities

Canadian "At the Market" Equity Distribution Agreement
During 2016, we issued 3,006,600 common shares for net proceeds of $956,133.

2015 Financing Activities

US Share Purchase Agreement
During 2015, under the terms of the Share Purchase Agreement, we issued 5,778,674 common shares for net proceeds of approximately US$3.5 million. As well, we issued 78,674 commitment shares with a fair value of US$50,024 which has been recorded as additional share issue costs.

"At the Market" Equity Distribution Agreement
During 2015, we issued 18,860,454 common shares for net proceeds of approximately US$15.5 million.

NASDAQ Listing
In October, 2015, we received notice from the NASDAQ OMX Group ("NASDAQ") stating that, in accordance with NASDAQ listing rules, our common shares would be delisted from the NASDAQ Capital Market, effective from the opening of trading on November 5, 2015 for not maintaining the minimum $1.00 per share required for continued listing under Listing Rule 5550(a)(2). As a result, effective November 5, 2015, we were no longer able to use our Share Purchase Agreement or our ATM which were both conditional on maintaining a NASDAQ listing.

Liquidity

As at December 31, 2016 and 2015, we had cash and cash equivalents, short-term investments and working capital positions as follows:

	2016 **$**	**2015** **$**
Cash and cash equivalents	**12,034,282**	24,016,275
Short-term investments	**2,088,800**	2,060,977
Working capital position	**10,369,665**	24,214,488

The decrease in our cash and cash equivalent and short term investment positions reflects the cash usage from our operating activities of $12.5 million along with the cash provided by our financing activities of $1.0 million for the year ending December 31, 2016.

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"). During 2015, we were able to raise funds through our Share Purchase Agreement with LPC and our "at the market" equity distribution agreement with Canaccord Genuity Inc.

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 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. 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 $1.5 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 approximately $12 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 Arrangements to fund our presently planned operations into 2017. 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 2016.

Contractual Obligations

We have the following contractual obligations as at December 31, 2016:

Contractual Obligations	Payments Due by Period				
	Total $	Less than 1 year $	2 -3 years $	4 - 5 years $	More than 5 years $
Capital lease obligations	Nil	—	—	—	—
Operating lease [1]	517,647	163,978	207,026	146,643	—
Purchase obligations	1,033,619	1,033,619	—	—	—
Other long term obligations	Nil	—	—	—	—
Total contractual obligations	1,551,266	1,197,597	207,026	146,643	—

Note:
1. Our operating leases are comprised of our office leases and exclude our portion of operating costs.

We expect to fund our capital expenditure requirements and commitments with existing working capital.

Investing Activities

Under our Investment Policy, we are permitted to invest in short-term instruments with a rating no less than R-1 (DBRS) with terms less than two years. Our portfolio consists of guarantee investment certificates. As of December 31, 2016, we had $2.1 million invested under this policy, currently earning interest at an effective rate of 1.41%.

Off-Balance Sheet Arrangements

As at December 31, 2016, we had not entered into any off-balance sheet arrangements.

Transactions with Related Parties

In 2016, 2015 and 2014, we did not enter into any related party transactions other than compensation paid to Key Management Personnel disclosed in Note 19 of our audited consolidated financial statements.

Financial Instruments and Other Instruments

Our financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable and accounts payable. As at December 31, 2016, 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. Currently, 100% of our short-term investments are 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. We are exposed to currency risk from the purchase of goods and services primarily in the US, the U.K and the European Union and to the extent cash is held in foreign currencies. The impact of a $0.01 increase in the value of the US dollar against the Canadian dollar would have decreased our net loss in 2016 by approximately $2,913. The impact of a $0.10 increase in the value of the British pound against the Canadian dollar would have increased our net loss in 2016 by approximately $10,499. The impact of a $0.10 increase in the value of the Euro against the Canadian dollar would have decreased our net loss in 2016 by approximately $3,010.

We mitigate our foreign exchange risk through the purchase of foreign currencies in sufficient amounts to settle our foreign accounts payable.

Balances in foreign currencies at December 31, 2016 are as follows:

	US dollars $	**British pounds £**	**Euro €**
Cash and cash equivalents	4,629,766	31,295	32,565
Accounts payable	(134,059)	(10,837)	—
	4,495,707	20,458	32,565

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 the notes to our audited financial statements. Accounts payable are all due within the current operating period.

Risk Factors Affecting Future Performance

General Risk Factors

Prospects for biotechnology companies in the research and development stage should generally be regarded as speculative. It is not possible to predict, based upon studies in animals, or early studies in humans, whether a new therapeutic will ultimately prove to be safe and effective in humans, or whether necessary and sufficient data can be developed through the clinical trial process to support a successful product application and approval.

If a product is approved for sale, product manufacturing at a commercial scale and significant sales to end users at a commercially reasonable price may not be successful. There can be no assurance that we will generate adequate funds to continue development, or will ever achieve significant revenues or profitable operations. Many factors (e.g. competition, patent protection, appropriate regulatory approvals) can influence the revenue and product profitability potential.

In developing a pharmaceutical product, we rely upon our employees, contractors, consultants and collaborators and other third party relationships, including the ability to obtain appropriate product liability insurance. There can be no assurance that this reliance and these relationships will continue as required.

In addition to developmental and operational considerations, market prices for securities of biotechnology companies generally are volatile, and may or may not move in a manner consistent with the progress we have made or are making.

Our product REOLYSIN is in the research and development stage and will require further development and testing before it can be marketed commercially.

Prospects for companies in the biotechnology industry generally may be regarded as uncertain given the nature of the industry and, accordingly, investments in biotechnology companies should be regarded as speculative. We are currently in the research and development stage on one product, REOLYSIN, for human application, the riskiest stage for a company in the biotechnology industry. It is not possible to predict, based upon studies in animals, or early studies in humans, whether REOLYSIN will prove to be safe and effective in humans. REOLYSIN will require additional research and development, including extensive clinical testing, before we will be able to obtain the approval of the United States Food and Drug Administration (the "FDA") or from similar regulatory authorities in other countries to market REOLYSIN commercially. There can be no assurance that the research and development programs conducted by us will result in REOLYSIN or any other products becoming commercially viable products, and in the event that any product or products result from the research and development program, it is unlikely they will be commercially available for a number of years.

To achieve profitable operations, we, alone or with others, must successfully develop, introduce and market our products. To obtain regulatory approvals for products being developed for human use, and to achieve commercial success, human clinical trials must demonstrate that the product is safe for human use and that the product shows efficacy. Unsatisfactory results obtained from a particular study relating to a program may cause us to abandon our commitment to that program or the product being tested. No assurances can be provided that any current or future animal or human test, if undertaken, will yield favorable results. If we are unable to establish that REOLYSIN is a safe, effective treatment for cancer, we may be required to abandon further development of the product and develop a new business strategy.

There are inherent risks in pharmaceutical research and development.

Pharmaceutical research and development is highly speculative and involves a high and significant degree of risk. The marketability of any product developed by us will be affected by numerous factors beyond our control, including:

- the discovery of unexpected toxicities or lack of sufficient efficacy of products which make them unattractive or unsuitable for human use;
- preliminary results as seen in animal and/or limited human testing may not be substantiated in larger controlled clinical trials;
- manufacturing costs or other factors may make manufacturing of products impractical and non-competitive;
- proprietary rights of third parties or competing products or technologies may preclude commercialization;
- requisite regulatory approvals for the commercial distribution of products may not be obtained; and
- other factors may become apparent during the course of research, up-scaling or manufacturing which may result in the discontinuation of research and other critical projects.

Our product under development has never been manufactured on a commercial scale, and there can be no assurance that such products can be manufactured at a cost or in a quantity to render such products commercially viable. Production and utilization of our products may require the development of new manufacturing technologies and expertise. The impact on our business in the event that new manufacturing technologies and expertise are required to be developed is uncertain. There can be no assurance that we will successfully meet any of these technological challenges, or others that may arise in the course of development.

Pharmaceutical products are subject to intense regulatory approval processes.

The regulatory process for pharmaceuticals, which includes preclinical studies and clinical trials of each compound to establish its safety and efficacy, takes many years and requires the expenditure of substantial resources. Moreover, if regulatory approval of a drug is granted, such approval may entail limitations on the indicated uses for which it may be marketed. Failure to comply with applicable regulatory requirements can, among other things, result in suspension of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution. Further, government policy may change, and additional government regulations may be established that could prevent or delay regulatory approvals for our products. In addition, a marketed drug and its manufacturer are subject to continual review. Later discovery of previously unknown problems with the product or manufacturer may result in restrictions on such product or manufacturer, including withdrawal of the product from the market.

The FDA in the United States and other relevant regulatory authorities may deny approval of a new drug application ("NDA") or its equivalent in the relevant jurisdiction if required regulatory criteria are not satisfied, or may require additional testing. Product approvals may be withdrawn if compliance with regulatory standards are not maintained or if problems occur after the product reaches the market. The FDA may require further testing and surveillance programs to monitor the pharmaceutical product that has been commercialized. Non-compliance with applicable requirements can result in fines and other judicially imposed sanctions, including product withdrawals, product seizures, injunction actions and criminal prosecutions.

In addition to our own pharmaceuticals, we may supply active pharmaceutical ingredients and advanced pharmaceutical intermediates for use in or with our customers' other drug products. The final drug products in which the pharmaceutical ingredients and advanced pharmaceutical intermediates are used, however, are subject to regulation for safety and efficacy by the FDA and other jurisdictions, as the case may be. Such products must be approved by such agencies before they can be commercially marketed. The process of obtaining regulatory clearance for marketing is uncertain, costly and time consuming. We cannot predict how long the necessary regulatory approvals will take or whether our customers will ever obtain such approval for their products. To the extent that our customers do not obtain the necessary regulatory approvals for marketing new products, our product sales could be adversely affected.

The FDA and other governmental regulators have increased requirements for drug purity and have increased environmental burdens upon the pharmaceutical industry. Because pharmaceutical drug manufacturing is a highly regulated industry, requiring significant documentation and validation of manufacturing processes and quality control assurance prior to approval of the facility to manufacture a specific drug, there can be considerable transition time between the initiation of a contract to manufacture a product and the actual initiation of manufacture of that product. Any lag time in the initiation of a contract to manufacture product and the actual initiation of manufacture could cause us to lose profits or incur liabilities.

The pharmaceutical regulatory regime in Europe and other countries is, by and large, generally similar to that of Canada and the United States. We could face similar risks in these other jurisdictions, as the risks described above.

Our operations and products may be subject to other government manufacturing and testing regulations.

Securing regulatory approval for the marketing of therapeutics by the FDA in the United States and similar regulatory agencies in other countries is a long and expensive process, which can delay or prevent product development and marketing. Approval to market products may be for limited applications or may not be received at all.

The products anticipated to be manufactured by us will have to comply with the FDA's cGMP and other FDA and local government guidelines and regulations, including other international regulatory requirements and guidelines. Additionally, certain of our customers may require the manufacturing facilities contracted by us to adhere to additional manufacturing standards, even if not required by the FDA. Compliance with cGMP regulations requires manufacturers to expend time, money and effort in production, and to maintain precise records and quality control to ensure that the product meets applicable specifications and other requirements. The FDA and other regulatory bodies periodically inspect drug-manufacturing facilities to ensure compliance with applicable cGMP requirements. If the manufacturing facilities contracted by us fail to comply with the cGMP requirements, the facilities

may become subject to possible FDA or other regulatory action and manufacturing at the facility could consequently be suspended. We may not be able to contract suitable alternative or back-up manufacturing facilities on terms acceptable to us or at all.

The FDA or other regulatory agencies may also require the submission of any lot of a particular product for inspection. If the lot product fails to meet the FDA requirements, then the FDA could take any of the following actions: (i) restrict the release of the product; (ii) suspend manufacturing of the specific lot of the product; (iii) order a recall of the lot of the product; or (iv) order a seizure of the lot of the product.

We are subject to regulation by governments in many jurisdictions and, if we do not comply with healthcare, drug, manufacturing and environmental regulations, among others, our existing and future operations may be curtailed, and we could be subject to liability.

In addition to the regulatory approval process, we may be subject to regulations under local, provincial, state, federal and foreign law, including requirements regarding occupational health, safety, laboratory practices, environmental protection and hazardous substance control, and may be subject to other present and future local, provincial, state, federal and foreign regulations.

Our products may fail or cause harm, subjecting us to product liability claims, which are uninsured.

The sale and use of our products entail risk of product liability. We currently do not have any product liability insurance. There can be no assurance that we will be able to obtain appropriate levels of product liability insurance prior to any sale of our pharmaceutical products. An inability to obtain insurance on economically feasible terms or to otherwise protect against potential product liability claims could inhibit or prevent the commercialization of products developed by us. The obligation to pay any product liability claim or a recall of a product could have a material adverse effect on our business, financial condition and future prospects.

Our technologies may become obsolete.

The pharmaceutical industry is characterized by rapidly changing markets, technology, emerging industry standards and frequent introduction of new products. The introduction of new products embodying new technologies, including new manufacturing processes, and the emergence of new industry standards may render our products obsolete, less competitive or less marketable. The process of developing our products is extremely complex and requires significant continuing development efforts and third party commitments. Our failure to develop new technologies and products and the obsolescence of existing technologies could adversely affect our business.

We may be unable to anticipate changes in our potential customer requirements that could make our existing technology obsolete. Our success will depend, in part, on our ability to continue to enhance our existing technologies, develop new technology that addresses the increasing sophistication and varied needs of the market, and respond to technological advances and emerging industry standards and practices on a timely and cost-effective basis. The development of our proprietary technology entails significant technical and business risks. We may not be successful in using our new technologies or exploiting the respective niche markets effectively or adapting our businesses to evolving customer or medical requirements or preferences or emerging industry standards.

We have no operating revenues and a history of losses.

To date, we have not generated sufficient revenues to offset our research and development costs and accordingly have not generated positive cash flow or made an operating profit. As of December 31, 2016, we had an accumulated deficit of $278.8 million and we incurred net losses of $15.1 million, $13.7 million and $18.6 million, for the years ended December 31, 2016, 2015 and 2014, respectively. We anticipate that we will continue to incur significant losses during 2017 and in the foreseeable future. We do not expect to reach profitability at least until after successful and profitable commercialization of one or more of our products. Even if one or more of our products are profitably commercialized, the initial losses incurred by us may never be recovered.

We may need additional financing in the future to fund the research and development of our products and to meet our ongoing capital requirements.

We anticipate that we may need additional financing in the future to fund research and development and to meet our ongoing capital requirements. The amount of future capital requirements will depend on many factors, including continued scientific progress in our drug discovery and development programs, progress in our pre-clinical and clinical evaluation of drug candidates, time and expense associated with filing, prosecuting and enforcing our patent claims and costs associated with obtaining regulatory approvals. In order to meet such capital requirements, we will consider contract fees, collaborative research and development

arrangements, and additional public or private financings (including the incurrence of debt and the issuance of additional equity securities) to fund all or a part of particular programs as well as potential partnering or licensing opportunities. There can be no assurance that additional funding will be available or, if available, that it will be available on acceptable terms. If adequate funds are not available on terms favorable to us, we may have to reduce substantially or eliminate expenditures for research and development, testing, production and marketing of our proposed product, or obtain funds through arrangements with corporate partners that require us to relinquish rights to certain of our technologies or product. There can be no assurance that we will be able to raise additional capital if our current capital resources are exhausted.

The cost of director and officer liability insurance may continue to increase substantially or may not be available to us and may affect our ability to retain quality directors and officers.

We carry liability insurance on behalf of our directors and officers. Given a number of large director and officer liability insurance claims in the US equity markets, director and officer liability insurance had until recently become increasingly more expensive with increased restrictions. Consequently, there is no assurance that we will continue to be offered this insurance or be able to obtain adequate coverage. The inability to acquire the appropriate insurance coverage will limit our ability to attract and maintain directors and officers as required to conduct our business.

We incur some of our expenses in foreign currencies and therefore are exposed to foreign currency exchange rate fluctuations.

We incur some of our manufacturing, clinical, collaborative and consulting expenses in foreign currencies, primarily the US dollar, the Pound Sterling and the Euro. We are therefore exposed to foreign currency rate fluctuations. Also, as we expand to other foreign jurisdictions there may be an increase in our foreign exchange exposure.

We earn interest income on our excess cash reserves and are exposed to changes in interest rates.

We invest our excess cash reserves in investment vehicles that provide a rate of return with little risk to principle. As interest rates change the amount of interest income we earn will be directly impacted.

Other MD&A Requirements

We have 121,258,222 common shares outstanding at March 9, 2017. If all of our options, restricted share units and performance share units (11,004,156) were exercised we would have 132,262,378 common shares outstanding.

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

Disclosure Controls and Procedures

Evaluation of Disclosure Controls and Procedures:
Our chief executive and financial officers reviewed and evaluated our disclosure controls and procedures. Based on that evaluation, they have concluded that our disclosure controls and procedures are effective in providing them with timely material information relating to the Company.

Management's Annual Report on Internal Control Over Financial Reporting:
Our management is responsible for establishing and maintaining adequate internal control over financial reporting, and has designed such internal control over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of financial statements for external purposes in accordance with International Financial Reporting Standards.

Management, including the Chief Executive Officer and Chief Financial Officer, does not expect that our internal controls and procedures over financial reporting will prevent all error and all fraud. A control system can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving our stated goals under all potential future conditions. Because of the inherent limitations in a cost-effective control

system, misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has evaluated the design and operation of our internal control over financial reporting as of December 31, 2016, and has concluded that such internal control over financial reporting is effective as of December 31, 2016. There are no material weaknesses that have been identified by management in this regard. This assessment was based on criteria for effective internal control over financial reporting described in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework).

Changes in Internal Controls over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the last fiscal year that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Consolidated Financial Statements

Oncolytics Biotech® Inc.
December 31, 2016 and 2015

STATEMENT OF MANAGEMENT'S RESPONSIBILITY

Management is responsible for the preparation and presentation of the consolidated financial statements, Management's Discussion and Analysis ("MD&A") and all other information in the Annual Report.

In management's opinion, the accompanying consolidated financial statements have been properly prepared within reasonable limits of materiality and in accordance with the appropriately selected International Financial Reporting Standards as issued by the International Accounting Standards Board consistently applied and summarized in the consolidated financial statements.

The MD&A has been prepared in accordance with the requirements of securities regulators as applicable to Oncolytics Biotech Inc.

The consolidated financial statements and information in the MD&A generally include estimates that are necessary when transactions affecting the current accounting period cannot be finalized with certainty until future periods. Based on careful judgments by management, such estimates have been properly reflected in the accompanying consolidated financial statements and MD&A. The MD&A also includes information regarding the impact of current transactions and events, sources of liquidity and capital resources and risks and uncertainty. Actual results in the future may differ materially from our present assessment of this information because future events and circumstances may not occur as expected.

Systems of internal controls, including organizational and procedural controls and internal controls over financial reporting, assessed as reasonable and appropriate in the circumstances, are designed and maintained by management to provide reasonable assurance that assets are safeguarded from loss or unauthorized use and to produce reliable records for financial purposes.

We, as the Chief Executive Officer and Chief Financial Officer, will certify to our annual filings with the CSA and the SEC as required in Canada by National Instrument 52-109 (Certification of Disclosure in Issuers' Annual Interim Filings) and in the United States by the Sarbanes-Oxley Act.

The external auditors conducted an independent examination of corporate and accounting records in accordance with generally accepted auditing standards to express their opinion on the consolidated financial statements. Their examination included such tests and procedures as they considered necessary to provide reasonable assurance that the consolidated financial statements are presented fairly. The external auditors have full and free access to our Board of Directors and its Committees to discuss audit, financial reporting and related matters.

The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Board exercises this responsibility through the Audit Committee of the Board. This Committee meets with management and the external auditors to satisfy itself that management's responsibilities are properly discharged and to review the consolidated financial statements and MD&A before they are presented to the Board of Directors for approval.

/s/ Matt Coffey

Matt Coffey, Ph.D
Chief Executive Officer

/s/ Kirk Look

Kirk Look, CA
Chief Financial Officer

INDEPENDENT AUDITORS' REPORT OF REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders of **Oncolytics Biotech Inc.**

We have audited the accompanying consolidated financial statements of **Oncolytics Biotech Inc.**, which comprise the consolidated statements of financial position as at December 31, 2016 and 2015, and the consolidated statements of loss and comprehensive loss, changes in equity and cash flows for each of the years in the three-year period ended December 31, 2016, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the consolidated financial statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Oncolytics Biotech Inc. as at December 31, 2016 and 2015, and its financial performance and cash flows for each of the years in the three-year period ended December 31, 2016 in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Ernst + Young LLP

Calgary, Canada
March 9, 2017

Chartered Professional Accountants

ONCOLYTICS BIOTECH INC.
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As at December 31,	Notes	2016 $	2015 $
Assets			
Current assets			
Cash and cash equivalents	5	**12,034,282**	24,016,275
Short-term investments	5	**2,088,800**	2,060,977
Accounts receivable		**54,406**	340,059
Prepaid expenses		**260,841**	506,669
Total current assets		**14,438,329**	26,923,980
Non-current assets			
Property and equipment	6	**319,955**	459,818
Total non-current assets		**319,955**	459,818
Total assets		**14,758,284**	27,383,798
Liabilities And Shareholders' Equity			
Current Liabilities			
Accounts payable and accrued liabilities		**4,068,664**	2,709,492
Total current liabilities		**4,068,664**	2,709,492
Commitments and contingencies	*10, 11 and 16*		
Shareholders' equity			
Share capital Authorized: unlimited Issued: December 31, 2016 – 121,258,222 December 31, 2015 – 118,151,622	*7*	**262,321,825**	261,324,692
Contributed surplus	*8*	**26,643,044**	26,277,966
Accumulated other comprehensive income		**554,060**	760,978
Accumulated deficit		**(278,829,309)**	(263,689,330)
Total shareholders' equity		**10,689,620**	24,674,306
Total liabilities and equity		**14,758,284**	27,383,798

See accompanying notes

On behalf of the Board:

/s/ Angela Holtham — Director

/s/ Wayne Pisano — Director

ONCOLYTICS BIOTECH INC.
CONSOLIDATED STATEMENTS OF LOSS AND COMPREHENSIVE LOSS

For the years ending December 31,	Notes	2016 $	2015 $	2014 $
Expenses				
Research and development	8, 18, 19	**9,770,007**	8,601,864	13,824,252
Operating	8, 18, 19	**5,524,500**	5,315,837	4,998,694
Loss before the following		**(15,294,507)**	(13,917,701)	(18,822,946)
Interest		**163,902**	197,859	210,390
Loss before income taxes		**(15,130,605)**	(13,719,842)	(18,612,556)
Income tax recovery (expense)	12	**(9,374)**	(3,153)	(6,779)
Net loss		**(15,139,979)**	(13,722,995)	(18,619,335)
Other comprehensive income items that may be reclassified to net loss				
Translation adjustment		**(206,918)**	480,935	200,345
Net comprehensive loss		**(15,346,897)**	(13,242,060)	(18,418,990)
Basic and diluted loss per common share	**9**	**(0.13)**	(0.12)	(0.21)
Weighted average number of shares (basic and diluted)		**119,880,200**	112,613,845	87,869,149

See accompanying notes

ONCOLYTICS BIOTECH INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Share Capital $	Warrants $	Contributed Surplus $	Accumulated Other Comprehensive Income $	Accumulated Deficit $	Total $
As at December 31, 2013	228,612,564	376,892	24,491,212	79,698	(231,347,000)	22,213,366
Net loss and other comprehensive income	—	—	—	200,345	(18,619,335)	(18,418,990)
Issued, pursuant to Share Purchase Agreement	8,861,652	—	—	—	—	8,861,652
Issued, pursuant to "At the Market" Agreement	1,468,668	—	—	—	—	1,468,668
Expired warrants	—	(376,892)	376,892	—	—	—
Share based compensation	—	—	980,325	—	—	980,325
Share issue costs	(1,285,828)	—	—	—	—	(1,285,828)
As at December 31, 2014	237,657,056	—	25,848,429	280,043	(249,966,335)	13,819,193
Net loss and other comprehensive income	—	—	—	480,935	(13,722,995)	(13,242,060)
Issued, pursuant to Share Purchase Agreement	4,371,687	—	—	—	—	4,371,687
Issued, pursuant to "At the Market" Agreement	20,049,693	—	—	—	—	20,049,693
Share based compensation	—	—	429,537	—	—	429,537
Share issue costs	(753,744)	—	—	—	—	(753,744)
As at December 31, 2015	261,324,692	—	26,277,966	760,978	(263,689,330)	24,674,306
Net loss and other comprehensive income	—	—	—	(206,918)	(15,139,979)	(15,346,897)
Issued, pursuant to incentive share award plan	41,000	—	(41,000)	—	—	—
Issued, pursuant to "At the Market" Agreement	1,456,296	—	—	—	—	1,456,296
Share based compensation	—	—	406,078	—	—	406,078
Share issue costs	(500,163)	—	—	—	—	(500,163)
As at December 31, 2016	**262,321,825**	**—**	**26,643,044**	**554,060**	**(278,829,309)**	**10,689,620**

See accompanying notes

ONCOLYTICS BIOTECH INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ending December 31,	Notes	2016 $	2015 $	2014 $
Operating Activities				
Net loss for the year		**(15,139,979)**	(13,722,995)	(18,619,335)
Amortization - property and equipment		**162,233**	180,411	163,501
Share based compensation	*8, 18, 19*	**406,078**	429,537	980,325
Unrealized foreign exchange (gain) loss	*18*	**(139,810)**	(816,319)	242,542
Net change in non-cash working capital	*15*	**2,233,865**	(1,105,464)	(2,443,988)
Cash used in operating activities		**(12,477,613)**	(15,034,830)	(19,676,955)
Investing Activities				
Acquisition of property and equipment	*6*	**(23,527)**	(108,268)	(152,750)
Redemption (purchase) of short-term investments	*5*	**(27,823)**	(29,292)	(30,041)
Cash used in investing activities		**(51,350)**	(137,560)	(182,791)
Financing Activities				
Proceeds from Share Purchase Agreement	*7*	**—**	4,305,396	7,830,409
Proceeds from "At the Market" equity distribution agreement	*7*	**956,133**	19,362,240	1,214,083
Cash provided by financing activities		**956,133**	23,667,636	9,044,492
(Decrease) increase in cash		**(11,572,830)**	8,495,246	(10,815,254)
Cash and cash equivalents, beginning of year		**24,016,275**	14,152,825	25,220,328
Impact of foreign exchange on cash and cash equivalents		**(409,163)**	1,368,204	(252,249)
Cash and cash equivalents, end of year		**12,034,282**	24,016,275	14,152,825

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 consolidated financial statements for the year ended December 31, 2016, were authorized for issue in accordance with a resolution of the Board of Directors (the "Board") on March 9, 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 consolidated financial statements include our financial statements and the financial statements of our subsidiaries Oncolytics Biotech (Barbados) Inc., Oncolytics Biotech (US) Inc., and Oncolytics Biotech (UK) Inc. and are presented in Canadian dollars, our functional currency.

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 consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Basis of consolidation
Our accounts include the accounts of Oncolytics Biotech Inc. and our subsidiaries. Subsidiaries are entities over which we have control which is achieved when we are exposed, or have the rights, to variable returns from our involvement with the investee and has the ability to affect those returns through our power to govern. Accounting policies of subsidiaries are consistent with our accounting policies and all intra-group transactions, balances, income and expenses are eliminated on consolidation.

A change in ownership interest of a subsidiary, without a change in control, is accounted for as an equity transaction.

Note 3: Summary of Significant Accounting Policies

The consolidated financial statements have, in management's opinion, been properly prepared within reasonable limits of materiality and within the framework of the significant accounting policies summarized below.

Property and equipment

Property and equipment are recorded at cost. Depreciation is provided on bases and at rates designed to amortize the cost of the assets over their estimated useful lives. Depreciation is recorded using the declining balance method at the following annual rates:

Office equipment and furniture	20%
Medical equipment	20%
Computer equipment	30%
Leasehold improvements	Straight-line over the term of the lease

Foreign currency translation

The financial statements for each of our subsidiaries are prepared using their functional currency. Our presentation currency is the Canadian dollar which is also Oncolytics Biotech Inc.'s functional currency. Foreign currency transactions are translated into the functional currency using exchange rates prevailing at the dates of the transactions. Exchange differences resulting from the settlement of such transactions and from the translation at exchange rates ruling at the statement of financial position date of monetary assets and liabilities denominated in currencies other than the functional currency are recognized directly in the consolidated statement of loss and comprehensive loss.

Exceptions to this are where the monetary items form part of the net investment in a foreign operation and the foreign operation's functional currency is the local currency. These exchange differences are initially recognized in equity. The statement of financial position of foreign operations is translated into Canadian dollars using the exchange rate at the statement of financial position date and the income statements are translated into Canadian dollars using the average exchange rate for the period. Where this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, the exchange rate on the transaction date is used. Exchange differences on translation into Canadian dollars are recognized as a separate component of equity. On disposal of a foreign operation, any cumulative exchange differences held in equity are transferred to the consolidated statement of loss and comprehensive loss.

Research and development costs

Research costs are expensed as incurred, net of recoveries. Development costs that meet specific criteria related to technical, market and financial feasibility will be capitalized. To date, all development costs have been expensed.

Investment tax credits

Investment tax credits ("ITCs") relating to qualifying scientific research and experimental development expenditures that are refundable are accounted for as a reduction in research and development expenditures. ITCs that are non-refundable, but are recoverable against future taxes payable, are accrued only when there is reasonable assurance that the credits will be realized.

ITCs are subject to technical and financial review by the Canadian tax authorities on a project-by-project basis. Therefore, amounts ultimately received may vary significantly from the amounts recorded. Any such differences are recorded as an adjustment to the recognized amount in the year the review by the Canadian tax authority is completed and the results are made known to us.

Loss per common share

Basic loss per common share is determined using the weighted average number of common shares outstanding during the period.

We use the treasury stock method to calculate diluted loss per common share. Under this method, diluted loss per common share is computed in a manner consistent with basic loss per common share except that the weighted average common shares outstanding are increased to include additional common shares from the assumed exercise of options and warrants, if dilutive. The number of additional common shares is calculated by assuming that any outstanding “in the money” options and warrants were exercised at the later of the beginning of the period or the date of issue and that the proceeds from such exercises were used to acquire shares of common stock at the average market price during the reporting period.

Share based payments

Stock option plan

We have one stock option plan (the “Option Plan”) available to officers, directors, employees, consultants and suppliers with grants under the Option Plan approved from time to time by our Board of Directors (the “Board”). Under the Option Plan, the exercise price of each option is set at equal to or higher than the trading price of our stock on the date of grant in accordance with Toronto Stock Exchange guidelines. Vesting is provided for at the discretion of the Board and the expiration of options is to be no greater than 10 years from the date of grant. Exercised stock options are settled with common shares issued from treasury.

We use the fair value based method of accounting for stock option awards granted under the Option Plan. We recognize compensation expense and a corresponding adjustment to contributed surplus equal to the fair value of the stock options granted using the Black Scholes Option Pricing Model. The fair value of stock options with a graded vesting schedule is determined based on different expected lives for the options that vest each year, as it would be if the award were viewed as several separate awards, each with a different vesting date, and it is accounted for over the respective vesting period taking into consideration forfeiture estimates. Compensation expense is adjusted for subsequent changes in management's estimate of the number of options that are expected to vest.

Share based payments to non-employees are measured at the date we obtain the goods or the date the counterparty renders the service.

Incentive share award plan
Our incentive share award plan (the "Share Plan") is available to directors, officers and employees. Under our Share Plan, performance share units and restricted share units may be approved from time to time by the Board. Performance share units ("PSUs") are an award to eligible employees to which common shares shall be issued based upon achieving the applicable performance criteria. Restricted share units ("RSUs") are an award to non-employee directors to which common shares shall be issued in accordance with the Share Plan.

We recognize compensation expense and a corresponding adjustment to contributed surplus equal to the market value of our common shares at the date of grant based on the number of PSUs/RSUs expected to vest, recognized over the term of the vesting period. Compensation expense is adjusted for subsequent changes in management's estimate of the number of PSUs/RSUs that are expected to vest. The effect of these changes is recognized in the period of the change.

Financial instruments

Financial assets
Financial assets are comprised of cash and cash equivalents, accounts receivable, and short-term investments. Financial assets are initially recorded at fair market value and are classified as follows:

Cash and cash equivalents
Cash and cash equivalents consist of cash on hand and interest bearing deposits with our bank and have been designated as held for trading.

Accounts receivable
Accounts receivable have been classified as loans and receivables.

Short-term investments
We determine the appropriate classification of our short-term investments at the time of purchase and re-evaluate such classification as of each reporting date. We classify our short-term investments as held-to-maturity as we have the positive intent and ability to hold the securities to maturity. Held-to-maturity securities are stated at original cost, adjusted for amortization of premiums and accretion of discounts to maturity computed under the effective interest rate method. Such amortization and interest on securities classified as held-to-maturity are included in interest income.

Impairment of financial assets
We assess at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred loss event) and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated.

Financial liabilities
Trade accounts payable
Trade accounts payable are non interest-bearing and recorded at fair market value. They are classified as other financial liabilities and are subsequently measured at amortized cost using the effective interest rate method.

Fair Value Measurement
Fair value is the price that would be received to sell an asset, or paid to transfer a liability in an orderly transaction between market participants, at the measurement date. In determining the fair value measurement of our financial instruments we prioritize the related inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 - Inputs other than quoted prices included within Level 1 that are either directly or indirectly observable;

Level 3 - Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

Transaction Costs
Transaction costs are expensed as incurred for financial instruments designated as held for trading. Transaction costs for other financial instruments are recognized as part of the financial instrument's carrying value.

Deferred income taxes

We follow the liability method of accounting for income taxes. Under the liability method, deferred income taxes are recognized for the difference between financial statement carrying values and the respective income tax basis of assets and liabilities (temporary differences). Deferred income tax assets and liabilities are measured using substantively enacted income tax rates and laws expected to apply in the years in which temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities of a change in tax rates is charged or credited to income, except when it is related to items charged or credited to either other comprehensive income or directly to equity.

Accounting Standards and Interpretations Issued but Not Yet Effective

IFRS 9 - *Financial Instruments*
In July 2014, on completion of the impairment phase of the project to reform accounting for financial instruments and replace IAS 39 *Financial Instruments: Recognition and Measurement*, the IASB issued the final version of IFRS 9 *Financial Instruments.* IFRS 9 includes guidance on the classification and measurement of financial assets and financial liabilities and impairment of financial assets (i.e. recognition of credit losses).

Under the classification and measurement requirements for financial assets, financial assets must be classified and measured at either amortized cost or at fair value through profit or loss or through other comprehensive income, depending on the basis of the entity’s business model for managing the financial asset and the contractual cash flow characteristics of the financial asset.

The classification requirements for financial liabilities are unchanged from IAS 39. IFRS 9 requirements address the problem of volatility in net earnings arising from an issuer choosing to measure certain liabilities at fair value and require that the portion of the change in fair value due to changes in the entity’s own credit risk be presented in other comprehensive income, rather than within net earnings.

The new requirements for impairment of financial assets introduce an expected loss impairment model that requires more timely recognition of expected credit losses. IAS 39 impairment requirements are based on an incurred loss model where credit losses are not recognized until there is evidence of a trigger event. IFRS 9 is effective for annual periods beginning on or after January 1, 2018 with early application permitted. We are assessing the impact of adopting this standard on our consolidated financial statements.

IFRS 16 - *Leases*
In January 2016, the IASB issued IFRS 16 - *Leases* ("IFRS 16"), which replaces IAS 17 - *Leases* ("IAS 17") and related interpretations. IFRS 16 provides a single lessee accounting model, requiring the recognition of assets and liabilities for all leases, unless the lease term is 12-months or less or the underlying asset has a low value. IFRS 16 substantially carries forward the lessor accounting in IAS 17 with the distinction between operating leases and finance leases being retained. IFRS 16 will be applied retrospectively for annual periods beginning on or after January 1, 2019. Early adoption is permitted under certain circumstances. We are assessing the potential impact of adopting this standard on our consolidated financial statements.

Note 4: Significant Judgments, Estimates and Assumptions

Judgments

The preparation of our consolidated financial statements requires us to make judgments, estimates and assumptions that affect the reported amount of expenses, assets, liabilities, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Estimates and assumptions

Because a precise determination of many assets and liabilities is dependent upon future events, the preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting periods. Actual results could differ from those estimates and such differences could be significant. Significant estimates made by management affecting our consolidated financial statements include:

Share based payments
Part of our share based payment expense is measured by reference to the fair value of our stock options at the date at which they are granted. Estimating fair value for granted stock options requires determining the most appropriate valuation model which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the option, volatility, dividend yield, and rate of forfeitures and making assumptions about them. The value of the share based payment expense for the year along with the assumptions and model used for estimating fair value for share based compensation transactions are disclosed in Note 8.

Taxes
Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Currently, we are accumulating tax loss carry forward balances in various tax jurisdictions creating a deferred tax asset. Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies.

To date we have determined that none of our deferred tax assets should be recognized. Our deferred tax assets are mainly comprised of our net operating losses from prior years, prior year research and development expenses, and non-refundable investment tax credits. These tax pools relate to entities that have a history of losses, have varying expiry dates, and may not be used to offset taxable income within our other subsidiaries. As well, there are no taxable temporary differences or any tax planning opportunities available that could partly support the recognition of these losses as deferred tax assets.

Note 5: Cash Equivalents and Short Term Investments

Cash Equivalents
Cash equivalents consist of interest bearing deposits with our bank totaling $10,679,992 (December 31, 2015 – $21,742,300). The current annual interest rate earned on these deposits is 0.96% (December 31, 2015 – 0.76%).

Short-Term Investments

Short-term investments which consist of guaranteed investment certificates 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 are to invest our excess cash resources in investment vehicles that provide a better rate of return compared to our interest bearing bank account with limited risk to the principal invested. We intend to match the maturities of these short-term investments with the cash requirements of the Company's activities and treat these as held-to-maturity short-term investments.

	Face Value $	Original Cost $	Accrued Interest $	Carrying Value $	Fair Value $	Effective Interest Rate %
December 31, 2016						
Short-term investments	**2,088,800**	**2,088,800**	**—**	**2,088,800**	**2,088,800**	**1.41%**
December 31, 2015						
Short-term investments	2,060,977	2,060,977	—	2,060,977	2,060,977	1.35%

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

Note 6: Property and Equipment

	Medical Equipment	Computer Equipment	Office Furniture	Office Equipment	Leasehold Improvements	Total
Cost						
As at December 31, 2014	191,566	624,095	208,543	86,295	425,709	1,536,208
Additions, net of foreign exchange impact	6,304	61,182	5,542	1,669	40,156	114,853
As at December 31, 2015	197,870	685,277	214,085	87,964	465,865	1,651,061
Additions, net of foreign exchange impact	—	20,098	—	1,502	770	22,370
As at December 31, 2016	**197,870**	**705,375**	**214,085**	**89,466**	**466,635**	**1,673,431**
Amortization						
As at December 31, 2014	119,635	452,640	114,927	52,381	271,249	1,010,832
Amortization for the year	13,842	52,605	12,456	6,378	95,130	180,411
As at December 31, 2015	133,477	505,245	127,383	58,759	366,379	1,191,243
Amortization for the year	11,492	48,929	10,241	5,408	86,163	162,233
As at December 31, 2016	**144,969**	**554,174**	**137,624**	**64,167**	**452,542**	**1,353,476**
Net book value						
As at December 31, 2016	**52,901**	**151,201**	**76,461**	**25,299**	**14,093**	**319,955**
As at December 31, 2015	64,393	180,032	86,702	29,205	99,486	459,818

Note 7: Share Capital

Authorized:
Unlimited number of no par value common shares

Issued:	Shares		Warrants	
	Number	Amount $	Number	Equity Amount $
Balance, December 31, 2013	84,803,818	228,612,564	303,945	376,892
Issued pursuant to Share Purchase Agreement[a]	7,037,216	8,861,652	—	—
Issued pursuant to "At the Market" sales agreement[b]	1,671,460	1,468,668	—	—
Expiry of warrants	—	—	(303,945)	(376,892)
Share issue costs	—	(1,285,828)	—	—
Balance, December 31, 2014	93,512,494	237,657,056	—	—
Issued pursuant to Share Purchase Agreement[a]	5,778,674	4,371,687	—	—
Issued pursuant to "At the Market" sales agreement[b]	18,860,454	20,049,693	—	—
Share issue costs	—	(753,744)	—	—
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[c]	3,006,600	1,456,296		
Share issue costs	—	(500,163)	—	—
Balance, December 31, 2016	**121,258,222**	**262,321,825**	**—**	**—**

(a) In 2014, we entered into a share purchase agreement (the "Share Purchase Agreement") with Lincoln Park Capital Fund, LLC ("LPC") to sell up to US$26,000,000 of common stock. Subject to the terms and conditions of the Share Purchase Agreement and at our sole discretion, we may sell up to US$26.0 million worth of common shares to LPC over the 30-month term. The purchase price of the common shares was based on prevailing market prices of our common shares immediately preceding the notice of a sale without any fixed discount. Subject to the Share Purchase Agreement, we controlled the timing and amount of each investment and LPC was obligated to make such purchases, if and when elected. The Share Purchase Agreement did not impose any upper price limit restrictions, negative covenants or restrictions on our future financing activities, but required that we maintained our NASDAQ listing. Under the Share Purchase Agreement, we issued an initial commitment fee of 292,793 common shares to LPC valued at fair value of US$455,000. An additional 292,793 common shares was to be issued on a pro rata basis under the terms of the Share Purchase Agreement as an additional commitment fee.

On October 20, 2014, we reached an agreement to amend the Share Purchase Agreement. The specific amendments included allowing the Company to sell shares to LPC at the Company's sole option independent of the closing price of the Common Stock, increasing the number of shares that may have been sold to LPC at certain price levels and changed the way the number of Commitment Shares issuable was to be calculated. In consideration of the amendments to the Agreement, the Company issued 146,397 shares of Common Stock to LPC.

In 2015, under the terms of the amended Share Purchase Agreement, we issued 5,778,674 common shares (2014 - 7,037,216 common shares) for net proceeds of approximately US$3.5 million (2014 - US$7.1 million). As part of the shares issued, we issued 78,674 commitment shares (2014 - 536,254 commitment shares consisting of 292,793 initial commitment fee common shares, 146,397 commitment shares in consideration for the October 2014 amendments, and 97,064 additional commitment

fee common shares). The commitment shares have been valued at fair value of US$50,024 (2014 - US$654,267) and have been recorded as additional share issue costs. On November 5, 2015, we were delisted from the NASDAQ Capital Market and as a result we were unable to sell common shares under the Share Purchase Agreement.

(b) On October 24, 2014, we entered into an "at-the-market" ("ATM") equity distribution agreement with Canaccord Genuity Inc. acting as sole agent. Under the terms of the distribution agreement, we were able to, from time to time, sell shares of our common stock having an aggregate offering value of up to US$20 million through Canaccord Genuity Inc. directly to investors in the US through our NASDAQ listing. We were able to determine, at our sole discretion, the timing and number of shares to be sold under this ATM facility. During 2015, we issued 18,860,454 common shares (2014 - 1,671,460 common shares) for net proceeds of approximately US$15.5 million (2014 - US$1.1 million). On November 5, 2015, we were delisted from the NASDAQ Capital Market and as a result we were unable to sell common shares under our existing ATM.

(c) On February 25, 2016, we entered into a new ATM equity distribution agreement with Canaccord Genuity Inc. acting as our sole agent with an aggregate offering value of up to $4.6 million which 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 2016, we sold 3,006,600 common shares for gross proceeds of $1,456,296. We incurred share issue costs which included costs to establish our Canadian ATM facility of $500,163.

Note 8: 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 December 31:

	2016		2015		2014	
	Stock Options	**Weighted Average Exercise Price $**	**Stock Options**	**Weighted Average Exercise Price $**	**Stock Options**	**Weighted Average Exercise Price $**
Outstanding, beginning of the year	**8,561,394**	**2.17**	5,446,394	3.19	5,918,678	3.75
Granted during the year	**1,572,000**	**0.28**	3,280,000	0.43	500,000	1.26
Forfeited during the year	**(737,500)**	**0.65**	(100,000)	1.69	—	—
Expired during the year	**(721,667)**	**3.61**	(65,000)	1.49	(972,284)	5.56
Exercised during the year	—	—	—	—	—	—
Outstanding, end of the year	**8,674,227**	**1.83**	8,561,394	2.17	5,446,394	3.19
Options exercisable, end of the year	**6,729,643**	**2.27**	6,476,394	2.73	4,841,060	3.37

The following table summarizes information about the stock options outstanding and exercisable at December 31, 2016:

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	1,972,000	9.60	0.31	809,416	0.35
$0.42-$0.57	2,172,000	8.92	0.42	1,390,000	0.42
$0.58-$1.87	1,622,667	7.00	1.56	1,622,667	1.56
$1.88-$3.95	1,592,560	4.10	3.04	1,592,560	3.04
$3.96-$6.72	1,315,000	4.98	5.33	1,315,000	5.33
	8,674,227	7.23	1.83	6,729,643	2.27

Non-exercisable options vest either annually over periods ranging from one to three years or after the completion of certain performance criteria.

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

	2016	2015	2014
Risk-free interest rate	**0.82%**	0.63%	1.05%
Expected hold period to exercise	**3.0 years**	3.0 years	2.7 years
Volatility in the price of the Company's shares	**94.84%**	90%	72.55%
Rate of forfeiture	**3.67%**	3.67%	2.5%
Dividend yield	**Nil**	Nil	Nil
Weighted average fair value of options	**$0.17**	$0.24	$0.54

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 marketable bond rate 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

We have issued restricted share units to non-employee directors through our incentive share award plan. Grants of restricted share units 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 restricted share units are outstanding at December 31:

	2016	2015	2014
Outstanding, beginning of the year	**368,831**	—	—
Granted during the year	**1,053,998**	368,831	—
Forfeited during the year	—	—	—
Vested during the year	**(100,000)**	—	—
Outstanding, end of the year	**1,322,829**	368,831	—

(1) The weighted average fair value of the restricted share units granted was $0.31 in 2016 (2015 - $0.40).

We have also issued performance share units to certain officers of the Company. Grants of performance share units require completion of certain performance criteria and cliff vest after three years or vest over a three year period, depending on the grant. Grants will vest immediately upon a change of control of the Company. If the officer ceases 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 performance share units are outstanding at December 31:

	2016	2015	2014
Outstanding, beginning of the year	—	—	—
Granted during the year	**1,500,000**	—	—
Forfeited during the year	**(660,000)**	—	—
Outstanding, end of the year	**840,000**	—	—

(1) The weighted average fair value of the performance share units granted was $0.36 in 2016.

We have reserved 11,312,394 common shares for issuance relating to our outstanding equity compensation plans. Compensation expense related to stock options granted to employees, directors and consultants, restricted share units to independent directors and performance share units to certain officers for the year ended December 31, 2016 was $406,078 (2015 - $429,537; 2014 - $980,325).

Note 9: Loss Per Common Share

Loss per common share is calculated using net loss for the year and the weighted average number of common shares outstanding for the year ended December 31, 2016 of 119,880,200 (2015 - 112,613,845; 2014 - 87,869,149). The effect of any potential exercise of our stock options and warrants outstanding during the year has been excluded from the calculation of diluted loss per common share, as it would be anti-dilutive.

Note 10: Commitments

We are committed to payments totaling $1,033,619 during 2017 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 $
2017	163,978
2018	103,513
2019	103,513
2020	103,513
2021	43,130
	517,647

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 11: Contingencies

Assumption Agreement

In 1999, we entered into an agreement that assumed certain obligations (the "Assumption Agreement") in connection with a Share Purchase Agreement (the "Agreement") between SYNSORB and our former shareholders to make milestone payments and royalty payments.

As of December 31, 2016, a milestone payment was still outstanding for $1.0 million, due within 90 days of the first receipt from an Appropriate Regulatory Authority, for marketing approval to sell REOLYSIN® to the public or the approval of a new drug application for REOLYSIN®.

This milestone payment, when payable, will be accounted for as research and development expense and will not be deductible for income tax purposes.

In addition to the milestone payment, payments may become due and payable in accordance with the Agreement upon realization of sales of REOLYSIN®. If we receive royalty payments or other payments as a result of entering into partnerships or other arrangements for the development of the reovirus technology, we are obligated to pay to the founding shareholders 11.75% of the royalty payments and other payments received. Alternatively, if we develop the reovirus treatment to the point where it may be marketed at a commercial level, the payments referred to in the foregoing sentence will be amended to a royalty payment of 2.35% of Net Sales received for such products.

BRI "Work in Kind" Contribution
We entered into an engineering and process development agreement with the Biotechnology Research Institute of the National Research Council of Canada ("BRI"). The terms of this Agreement include a "work in kind" contribution from BRI. In exchange for this "work in kind" contribution, we agreed to provide a royalty, contingent upon receiving Sales Revenue, at the lesser of 0.5% of Sales Revenue or $20,000 per year. The total royalty under this Agreement is equal to two times the "work in kind" contribution. As of December 31, 2016, we estimate that the accumulated work in kind totals approximately $301,000.

Note 12: Income Taxes

The provision for income taxes recorded in the consolidated financial statements differs from the amount which would be obtained by applying the statutory income tax rate to the loss before income taxes as follows:

	2016	2015	2014
Loss before income taxes	**(15,130,605)**	(13,719,842)	(18,612,556)
Statutory Canadian corporate tax rate	**27.00%**	26.00%	25.00%
Anticipated tax recovery	**(4,085,263)**	(3,567,159)	(4,653,139)
Foreign jurisdiction tax rate difference	**2,184,796**	2,659,145	3,319,210
Employee stock based compensation	**109,641**	111,680	245,081
Change in tax rate	**—**	(1,336,941)	—
Adjustment to opening tax pools	**(39,569)**	(1,339,467)	(316,193)
Other permanent differences	**100,525**	23,620	(48,092)
Change in deferred tax benefits deemed not probable to be recovered	**1,739,557**	3,455,622	1,462,572
Deferred income tax recovery	**—**	—	—
Current income taxes	**9,687**	6,500	9,439
Adjustment in respect to prior periods	**(313)**	(3,347)	(2,660)
Net current tax expense	**9,374**	3,153	6,779

As at December 31, 2016, we have the following non-capital losses for income tax purposes in Canada:

Expiry	$
2026	9,809,000
2027	12,170,000
2029	4,009,000
2030	4,774,000
2031	4,343,000
2032	2,873,000
2033	2,457,000
2034	2,472,000
2035	3,125,000
2036	6,457,000
	52,489,000

As at December 31, 2016, we have the following non-refundable federal investment tax credits for income tax purposes in Canada:

Expiry	$
2020	189,000
2021	471,000
2022	465,000
2023	361,000
2024	228,000
2025	271,000
2026	520,000
2027	596,000
2028	622,000
2029	173,000
2030	91,000
2031	114,000
2032	381,000
2033	487,000
2034	270,000
2035	182,620
2036	45,007
	5,466,627

As well, we have unclaimed scientific research and experimental development expenditures available to reduce future years' taxable income of approximately $27,300,000. We have not recorded the potential benefits of these tax pools in these consolidated financial statements.

Deferred tax assets are recognized, to the extent that it is probable that taxable income will be available, against which the deductible temporary differences and the carry-forward of unused tax credits and unused tax losses can be utilized. The components of our unrecognized deferred tax asset are as follows:

	2016 $	2015 $	2014 $
Net operating losses carried forward	**17,821,631**	15,950,044	13,130,052
Scientific research and experimental development	**7,394,707**	7,278,284	6,424,359
Investment tax credits	**3,990,664**	3,987,214	4,083,046
Undepreciated capital costs in excess of book value of property and equipment and intellectual property	**1,908,654**	1,839,107	1,720,154
Share issue costs	**432,659**	619,066	655,787
Net capital losses carried forward	**7,598**	7,598	7,035
Unrecognized deferred tax asset	**31,555,913**	29,681,313	26,020,433

Note 13: 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.

	2016 $	2015 $
Cash and cash equivalents	**12,034,282**	24,016,275
Short-term investments	**2,088,800**	2,060,977
Shareholders' equity	**10,689,620**	24,674,306

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 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 7). 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 2016.

Note 14: Financial Instruments

Our financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable, and accounts payable. As at December 31, 2016, 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. Currently, 100% of our short-term investments are 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 decreased our net loss in 2016 by approximately $2,913. The impact of a $0.10 increase in the value of the British pound against the Canadian dollar would have increased our net loss in 2016 by approximately $10,499. The impact of a $0.10 increase in the value of the Euro against the Canadian dollar would have decreased our net loss in 2016 by approximately $3,010.

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 December 31, 2016 are as follows:

	US dollars $	British pounds £	Euro €
Cash and cash equivalents	4,629,766	31,295	32,565
Accounts payable	(134,059)	(10,837)	—
	4,495,707	20,458	32,565

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 13. Accounts payable are all due within the current operating period.

Note 15: Additional Cash Flow Disclosures

Net Change In Non-Cash Working Capital

	2016 $	2015 $	2014 $
Change in:			
Accounts receivable	**285,653**	(148,308)	(85,898)
Prepaid expenses	**245,828**	(215,116)	70,190
Accounts payable and accrued liabilities	**1,359,172**	(664,505)	(2,634,664)
Non-cash impact of foreign exchange	**343,212**	(77,535)	206,384
Change in non-cash working capital related to operating activities	**2,233,865**	(1,105,464)	(2,443,988)

Other Cash Flow Disclosures

	2016 $	2015 $	2014 $
Cash interest received	**163,902**	197,859	210,390
Cash taxes paid	**4,468**	3,421	9,715

Note 16: Indemnification of Officers and Directors

Our corporate by-laws require that, except to the extent expressly prohibited by law, we will indemnify our officers and directors against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment reasonably incurred in respect of any civil, criminal or administrative action or proceeding as it relates to their services to the Company. The by-laws provide no limit to the amount of the indemnification. We have purchased directors' and officers' insurance coverage to cover claims made against the directors and officers during the applicable policy periods. The amounts and types of coverage have varied from period to period as dictated by market conditions. We believe that we have adequate insurance coverage; however, there is no guarantee that all indemnification payments will be covered under our existing insurance policies.

There is no pending litigation or proceeding involving any of our officers or directors as to which indemnification is being sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

Note 17: Economic Dependence

We are economically dependent on our toll manufacturers. We primarily use one toll manufacturer in the US to produce the clinical grade REOLYSIN® required for our clinical trial program. Any significant disruption of the services provided by our primary toll manufacturer has the potential to delay the progress of our clinical trial program. We have used another toll manufacturer in the U.K. that has also produced clinical grade REOLYSIN® at a smaller scale. We have attempted to mitigate this risk by producing sufficient REOLYSIN® in advance of patient enrollment in a particular clinical trial.

Note 18: 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.

	2016 $	2015 $	2014 $
Included in research and development expenses:			
Realized foreign exchange loss (gain)	**104,851**	238,709	273,996
Unrealized non-cash foreign exchange (gain) loss	**67,109**	(816,319)	242,542
Non-cash share based compensation	**233,919**	257,016	588,658
Included in operating expenses			
Amortization of property and equipment	**162,233**	180,411	163,501
Non-cash share based compensation	**172,159**	172,521	391,667
Office minimum lease payments	**148,600**	196,601	94,888

Note 19: 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.

	2016 $	2015 $	2014 $
Short-term employee compensation and benefits	**2,753,553**	2,941,342	2,535,167
Termination benefits	**1,330,828**	—	—
Share-based payments	**372,008**	353,419	771,438
	4,456,389	3,294,761	3,306,605

Shareholder Information

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

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Chief Safety Officer
Alan Tuchman, MD, MBA (FAAN)
Chief Neuro Oncology Research Officer

Directors

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Angela Holtham, FCPA, FCMA, ICD.D
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J. Mark Lievonen, C.M., FCPA, FCA
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