Third Quarter Report

September 30, 2019

MANAGEMENT DISCUSSION & ANALYSIS

September 30, 2019

November 12, 2019

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

This discussion and analysis should be read in conjunction with the unaudited interim consolidated financial statements of Oncolytics Biotech® Inc. as at and for the three and nine months ended September 30, 2019 and 2018, and and should also be read in conjunction with the audited consolidated financial statements and Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") contained in our annual report for the year ended December 31, 2018. The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS").

FORWARD-LOOKING STATEMENTS

The following discussion contains forward-looking statements, within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended and under applicable Canadian provincial securities legislation. Forward-looking statements, including our belief as to the potential of pelareorep, an intravenously delivered immuno-oncolytic virus, as a cancer therapeutic and our expectations as to the success of our research and development, clinical and manufacturing programs in 2019 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 pelareorep as a cancer treatment, the success and timely completion of clinical studies and trials, our ability to successfully commercialize pelareorep, uncertainties related to the research, development and manufacturing of pelareorep, uncertainties related to competition, changes in technology, the regulatory process and general changes to the economic environment.

With respect to the forward-looking statements made within this MD&A, we have made numerous assumptions regarding among other things: our ability to obtain financing to fund our clinical development plan, our ability to receive regulatory approval to commence enrollment in the clinical studies which are part of our clinical development plan, our ability to maintain our supply of pelareorep 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.

Pelareorep Development Update For 2019

Oncolytics Biotech Inc. is a Development Stage Company

Since our inception in April of 1998, Oncolytics Biotech Inc. has been a development stage company. We have focused our research and development efforts on the development of pelareorep, an intravenously delivered immuno-oncolytic virus (IOV) with the potential to treat a variety of cancers. 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, pelareorep becomes commercially viable.

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

Clinical Trial Program

Our clinical development plan, based on drug combinations that can potentially boost the anti-tumor activities of pelareorep, has two main objectives:

- The primary objective is to obtain regulatory approval as quickly as possible and is based on our compelling metastatic breast cancer (mBC) survival data presented at the 2017 AACR Annual Meeting. Using these survival data as the basis for our registration program, we may advance pelareorep directly into a phase 3 trial under a 2018 agreement with the United States Food and Drug Administration (FDA) under a Special Protocol Assessment (SPA). In an effort to increase the likelihood of success in the planned phase 3 program, we first have undertaken studies to define a biomarker that may allow us to more cost-effectively and more quickly enroll patients into the phase 3 trials and to populate the study with patients more likely to respond to therapy.

- The second objective is to expand the commercial potential of pelareorep by testing its capacity to boost the effectiveness of valuable new treatments, including immunotherapies like checkpoint inhibitors.

Third Quarter 2019 Developments

Clinical studies aiding registration program

Collaboration with Merck KGaA, Darmstadt, Germany, and Pfizer Inc.: BRACELET-1 study

In June 2019, we entered into an agreement with Merck KGaA, Darmstadt, Germany and Pfizer Inc. to co-develop pelareorep in combination with paclitaxel and avelumab, a human anti-PD-L1 antibody, for the treatment of hormone-receptor positive, human epidermal growth factor 2-negative (HR+ / HER2-) mBC. The cost of this phase 2 clinical trial will be shared equally between Oncolytics and Pfizer. The study, known as BRACELET-1 (**BR**east c**A**n**CE**r with the Oncolytic Reovirus Pe**L**areor**E**p in Combina**T**ion with anti-PD-L1 and Paclitaxel), is an open label study planned to enroll 45 patients into three cohorts with 15 patients per cohort: paclitaxel alone, paclitaxel in combination with pelareorep, and paclitaxel in combination with both pelareorep and avelumab. The study will examine the expression of immune-related biomarkers to identify changes in T cell population between pre-treatment and on-therapy biopsies to confirm our previously identified biomarker and is designed to assess efficacy in terms of overall response rate at week 16 per RECIST 1.1 and iRECIST. The safety of the combination will also be evaluated. Similar to the AWARE-1 study (see below), the results of this study may provide an opportunity to add an arm to our proposed phase 3 study that includes a checkpoint inhibitor in addition to the chemotherapy-virus combination. Furthermore, the results of the BRACELET-1 study will provide important confirmatory data in the same patient population where we presented compelling metastatic breast cancer survival data at the 2017 AACR Annual Meeting. These endpoints, including the biomarker data, are expected to further de-risk our planned phase 3 registration study, permitting for a smaller study with a higher likelihood of clinical success.

During the third quarter of 2019, we identified and negotiated with the cooperative group that will run the BRACELET-1 study. In October 2019, we announced our collaboration with PrECOG LLC, a leading cancer research network. The study is anticipated to begin enrollment in the first quarter of 2020.

Collaboration with SOLTI: AWARE-1 study

In September 2018, we announced a collaboration with SOLTI, an academic research group dedicated to clinical and translational research in breast cancer. This clinical collaboration, AWARE-1, is a window of opportunity study in the neoadjuvant setting for breast cancer using pelareorep in combination with F. Hoffmann-La Roche (Roche)'s anti-PD-L1 checkpoint inhibitor, atezolizumab (Tecentriq®), which we are utilizing under our Master Clinical Supply Agreement with Roche. The study plans to enroll 38 patients. Data generated from this study is intended to confirm that the virus is acting as a novel immunotherapy in breast cancer and to confirm biomarker data for breast cancer. The primary objective of this study is to supplement the existing randomized phase 2 results by providing key biomarker data points to enhance our probability of success in the phase 3 registration study. The results of this study may also provide an opportunity to add an arm to our proposed phase 3 study that includes a checkpoint inhibitor in addition to the chemotherapy-virus combination. In February 2019, we received approval for AWARE-1 from the Spanish Agency for Medicine and Health Products.

In July 2019, we announced preliminary AWARE-1 trial data demonstrating viral replication and promotion of inflammation following systemic administration of pelareorep when combined with Tecentriq®. Early data suggest a correlation between T cell population and viral replication with highly infected tumors. We have also received a favorable recommendation from the Steering Committee to advance into the next phase of the AWARE-1 study. We expect to announce additional interim data from the study before the end of 2019.

Additional checkpoint inhibitor combinations

Pancreatic cancer study combining pelareorep and Keytruda®

In 2018, we announced the first patient had been treated in our investigator sponsored study (IST) supported by Merck Inc. (Merck), Northwestern University along with Oncolytics. This study, an extension of our phase 1 study (REO 024), will investigate pelareorep in combination with Merck's anti-PD1 checkpoint inhibitor Keytruda®, to treat second line pancreatic cancer patients. The study plans to enroll approximately 40 patients.

During the third quarter of 2019, we continued patient enrollment and treatment.

Multiple myeloma study combining pelareorep and Opdivo®

In 2018, we announced that the first patient had been treated in our IST with Emory University and the University of Utah investigating the combination of pelareorep and Bristol-Myers Squibb's anti-PD1 checkpoint inhibitor Opdivo® in 40 - 50 relapsed or refractory myeloma patients.

During the third quarter of 2019, we continued patient enrollment in the safety cohort investigating the combination of proteosome with the checkpoint inhibitor prior to the addition of pelareorep.

Post Q3 2019 Development

In October 2019, the following presentation was made on the results of a metanalysis of 13 clinical studies of pelareorep:

Title	Presenter	Location	Description/Conclusion
Systemic administration of oncolytic reovirus, pelareorep, a metanalysis on the efficiency of tumor delivery	Grey Wilkinson, PhD, Translational Scientist, Oncolytics Biotech Inc.	International Oncolytic Virus Conference (IOVC) 2019, Rochester, Minnesota	The analyses examined the effectiveness of viral replication within the tumors of patients treated systemically with pelareorep. The data demonstrated that, unlike other oncolytic viruses that require intra-tumoral delivery, intravenous (IV) systemic delivery of pelareorep resulted in 81% of patient tumor samples across multiple types of cancer testing positive for virus replication, with no infection in normal tissue. These results are from studies across a broad range of solid and liquid tumors, including metastatic disease. Key Findings from the Metanalysis: – After IV delivery, 81% of patient tumor samples are positive for replicating reovirus (the average increases to 96% when melanoma and skin biopsies are excluded) – Tumor types that showed a high proportion of active viral replication: breast cancer, pancreatic adenocarcinoma, multiple myeloma, colorectal cancer patients with liver metastases and high-grade glioma

In November 2019, the following presentation was made on the data from the AWARE-1 study:

Title	Presenter	Location	Description/Conclusion
A window-of-opportunity Study of pelareorep in Early Breast Cancer (AWARE-1)	Aleix Prat, MD, PhD, et al., Head, Medical Oncology Department, Hospital Clinic of Barcelona & Associate Professor, University of Barcelona, SOLTI - Breast Cancer Research Group	The Society for Immunotherapy of Cancer (SITC) 2019, National Harbor, Maryland	The primary objective of this study is to evaluate changes in the immune environment of patients diagnosed with breast cancer. Importantly, an increase in CelTIL score, which means a change or expansion of infiltrating immune cells, known to correlate with a positive patient outcome. Initial data indicate viral replication exclusively in breast cancer tumor tissue and an increase in CelTIL score through the expansion of existing T cells and the creation of new T cell clones.

Manufacturing and Process Development

During the third quarter of 2019, as we continued our production of 100-litre cGMP batches, we supplied our clinical development program with previously filled product from our existing stock of pelareorep, labeled for the applicable usage. As well, we continued our activities to develop clinical and commercial production capabilities to fill pelareorep into vials, the next step in the process validation master plan. Process validation is required to ensure that the resulting product meets required specifications and quality standards and will form part of the Company's submission to regulators, including the FDA, for product approval.

Intellectual Property

At the end of the third quarter of 2019, we had been issued over 399 patents including 48 US and 21 Canadian patents as well as issuances in other jurisdictions. We have an extensive patent portfolio covering the oncolytic reovirus that we use in our clinical trial program including a composition of matter patent that expires in 2028. Our patent portfolio also includes methods for treating proliferative disorders using modified adenovirus, HSV, parapoxvirus and vaccinia virus.

Financing Activity

U.S. "at-the-market" equity distribution agreement
During the three month period ending September 30, 2019, we sold 28,916 common shares for gross proceeds of US$46,306. We incurred share issue costs of $5,859.

Public offering
On August 16, 2019, pursuant to an underwritten public offering, 4,619,773 units were sold at a purchase price of US$0.81 per unit for gross proceeds of US$3,742,016. Each unit included one common share with a fair value of US$0.54 and one common share purchase warrant with a fair value of US$0.27 (see Note 5 and 6 of our interim consolidated financial statements). Each common share purchase warrant entitles the holder to purchase one common share at an exercise price of US$0.90 until August 16, 2024. We incurred transaction costs of $699,427 of which $466,284 were allocated to share issue costs and $233,143 were allocated to operating expenses, based on their relative fair values.

Financial Impact

We estimated at the beginning of the second quarter of 2019 that our cash requirements to fund our operations for the year will be between $19 - $20 million. We now expect our cash requirement for 2019 to be between $18 - $20 million, depending on our ultimate clinical program. Our cash usage for the nine month period ending September 30, 2019 was $12,651,215 for operating activities and $9,660 for the acquisition of property and equipment. Our net loss for the period was $13,721,246.

Cash Resources

We exited the third quarter of 2019 with cash and cash equivalents totaling $12,298,678 (see *"Liquidity and Capital Resources")*.

Pelareorep Development for the Remainder of 2019

Our planned 2019 development activity for pelareorep focuses on our clinical development plan along with our manufacturing and intellectual property programs. Our 2019 clinical objective is to incorporate our immuno-oncology combination strategy that includes checkpoint inhibitors and confirming the existence of a biomarker as we finalize our registration strategy and clinical protocol in preparation for a phase 3 clinical study in mBC. Before the end of 2019, we expect to continue enrollment in our AWARE-1, REO 024 extension and Opdivo® combination studies. We also expect to announce additional interim data from the AWARE-1 study. With respect to BRACELET-1, we expect to complete regulatory filings and commence clinical trial site selection and initiation activities by the first quarter of 2020 with patient enrollment anticipated to begin in the first quarter of 2020. Our expectation is that these combination studies will assist us in refining our phase 3 protocol for mBC and may also support further development around the innate and adaptive immunity components of the mechanism of action.

Our 2019 manufacturing program includes preparation for continued production of 100-litre cGMP batches along with the related analytical testing and product filling, as well as labeling, packaging and shipping of pelareorep to our various clinical sites for ongoing and upcoming activities. These actions also contribute to progression through our process validation master plan. 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 2019 will be approximately $18 - $20 million, but will depend on our ultimate clinical program (see *"Liquidity and Capital Resources"*).

Third Quarter Results of Operations

(for the three months ended September 30, 2019 and 2018)

Net loss for the three month period ended September 30, 2019 was $3,528,644 compared to $3,335,866 for the three month period ended September 30, 2018.

Research and Development Expenses ("R&D")

	2019 $	2018 $
Clinical trial expenses	**337,134**	465,634
Manufacturing and related process development expenses	**361,476**	352,506
Intellectual property expenses	**153,507**	224,030
Research collaboration expenses	**31,742**	40,888
Other R&D expenses	**674,484**	563,401
Foreign exchange gain	**(41,618)**	174,986
Share based payments	**101,401**	107,960
Research and development expenses	**1,618,126**	1,929,405

Clinical Trial Expenses

	2019 $	2018 $
Clinical trial expenses	**337,134**	465,634

Our clinical trial expenses for the third quarter of 2019 were $337,134 compared to $465,634 for the third quarter of 2018. In the third quarter of 2019, our costs relating to the preparation and development of our breast cancer registration study included patient enrollment and treatment for our AWARE-1 study and study initiation activities for our BRACELET-1 study. In addition to activities related to our breast cancer program, we also incurred close out costs related to our fully enrolled legacy clinical trials and costs related to patient enrollment and/or treatment in our checkpoint inhibitor pancreatic cancer study investigating Keytruda® in combination with pelareorep.

In the third quarter of 2018, our clinical activities mainly related to closing out certain fully enrolled clinical trials and the migration and conversion of our safety data. We also incurred expenses related to updating our supporting regulatory documents and regulatory consulting activities connected to our combination studies.

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

	2019 $	2018 $
Product manufacturing expenses	**313,489**	193,159
Process development expenses	**47,987**	159,347
Manufacturing and related process development expenses	**361,476**	352,506

Our M&P expenses for the third quarter of 2019 were $361,476 compared to $352,506 for the third quarter of 2018. During the third quarter of 2019, our product manufacturing costs primarily related to shipping and storage costs of our bulk and vialed product and production run testing. During the third quarter of 2018, our product manufacturing costs included shipping and storage costs of our bulk and vialed product along with relabeling activities in line with extended stability data.

Our process development expenses for the third quarter of 2019 focused on analytical development and for the third quarter of 2018 focused on analytical development and transfer and stability studies

Intellectual Property Expenses

	2019 $	2018 $
Intellectual property expenses	**153,507**	224,030

Our intellectual property expenses for the third quarter of 2019 were $153,507 compared to $224,030 for the third quarter of 2018. The change in intellectual property expenditures reflects the timing of filing costs associated with our patent base. At the end of the third quarter of 2019, we had been issued over 399 patents including 48 US and 21 Canadian patents, as well as issuances in other jurisdictions.

Research Collaboration Expenses

	2019 $	2018 $
Research collaboration expenses	**31,742**	40,888

Our research collaboration expenses were $31,742 for the third quarter of 2019 compared to $40,888 for the third quarter of 2018. Our research collaborations during the third quarter of 2019 and 2018 included studies investigating the interaction of the immune system and pelareorep. Our research collaborations during the third quarter of 2018 also included biomarker studies.

Other Research and Development Expenses

	2019 $	2018 $
R&D salaries and benefits	**637,671**	520,492
Other R&D expenses	**36,813**	42,909
Other Research and Development expenses	**674,484**	563,401

Our Other Research and Development expenses were $674,484 for the third quarter of 2019 compared to $563,401 for the third quarter of 2018. The change in our R&D salaries and benefits was mainly due to the timing of filling open positions in our U.S. office. Our Other R&D in the third quarter of 2019 expenses remained consistent with the third quarter of 2018.

Foreign Exchange (Gain) Loss

	2019 $	2018 $
Foreign exchange (gain) loss	**(41,618)**	174,986

Our foreign exchange gain was $41,618 for the third quarter of 2019 compared to a loss of $174,986 for the third quarter of 2018. The foreign exchange gain incurred in the third quarter of 2019 was primarily due to unrealized translation gain on U.S dollar denominated cash balances, partly offset by unrealized translation loss on U.S. denominated accounts payable. The foreign exchange loss incurred in the third quarter of 2018 was primarily due to the fluctuation in the U.S. dollar exchange rate on the translation of U.S. currency received from our June 2018 public offering and the settlement of our contract receivable.

Share Based Payments

	2019 $	2018 $
Share based payments	**101,401**	107,960

Non-cash share based payment expenses for the third quarter of 2019 were $101,401 compared to $107,960 for the third quarter of 2018. We incurred share based payment expenses associated with the vesting of granted options and share awards to officers and employees.

Operating Expenses

	2019 $	2018 $
Public company related expenses	**933,858**	488,018
Office expenses	**636,175**	824,899
Depreciation - property and equipment	**24,483**	26,698
Depreciation - right-of-use assets	**90,522**	—
Share based payments	**148,983**	128,647
Operating expenses	**1,834,021**	1,468,262

Our operating expenses for the third quarter of 2019 were $1,834,021 compared to $1,468,262 for the third quarter of 2018. 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. Our public company related expenses were $933,858 for the third quarter of 2019 compared to $488,018 for the third quarter of 2018. The change in our public company related expenses in the third quarter of 2019 was due to transaction costs of $233,143 related to our August 2019 public offering (see Note 6 of our interim consolidated financial statements), an increase in investor relations and business development activities and the associated travel expenses, as well as an increase in insurance premiums.

Office expenses include compensation costs (excluding share based payments), rent related to short term leases and other office related costs. During the third quarter of 2019, our office expenses were $636,175 compared to $824,899 for the third quarter of 2018. The change was primarily due to a reduction in office rent expense following the adoption of IFRS 16 with an increase in depreciation of the newly created right-of-use assets (see Note 3 of our interim consolidated financial statements).

Non-cash share based payment expenses in the third quarter of 2019 were $148,983 compared to $128,647 in the third quarter of 2018. We incurred share based payment expenses associated with the vesting of granted options and share awards to officers, employees and non-employee directors.

Results of Operations

(for the nine month period ending September 30, 2019 and 2018)

Net loss for the nine month period ending September 30, 2019 was $13,721,246 compared to $12,217,979 for the nine month period ending September 30, 2018.

Research and Development Expenses ("R&D")

	2019 $	2018 $
Clinical trial expenses	**1,608,186**	2,311,934
Manufacturing and related process development expenses	**3,302,211**	1,211,275
Intellectual property expenditures	**759,339**	814,257
Research collaboration expenses	**102,575**	268,616
Other R&D expenses	**2,024,243**	1,974,677
Foreign exchange gain	**202,440**	(109,515)
Share based payments	**325,000**	438,469
Research and development expenses	**8,323,994**	6,909,713

Clinical Trial Program

	2019 $	2018 $
Clinical trial expenses	**1,608,186**	2,311,934

Our clinical trial expenses were $1,608,186 for the nine month period ending September 30, 2019 compared to $2,311,934 for the nine month period ending September 30, 2018. Our clinical trial activities related primarily to the preparation and development of our breast cancer registration program. During the nine month period ending September 30, 2019, these costs included startup activities and patient enrollment and treatment for our AWARE-1 study as well as costs to complete our supporting regulatory documents and key opinion leader activities. During the nine month period ending September 30, 2018, these costs included phase 3 development activities and activities related to obtaining the Special Protocol Assessment from the FDA.

During the nine month period ending September 30, 2019 and September 30, 2018, in addition to activities related to our breast cancer program, we also incurred close out costs related to our fully enrolled legacy clinical trials, patient enrollment and/or treatment in our checkpoint inhibitor pancreatic cancer study investigating Keytruda® in combination with pelareorep, and expenses related to updating our supporting regulatory documents.

We still expect our clinical trial expenses to increase in 2019 compared to 2018. For the remainder of 2019, we expect to generate clinical data with checkpoint inhibitors, confirm the existence of a biomarker and commence study initiation activities related to BRACELET-1.

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

	2019 $	2018 $
Product manufacturing expenses	**3,142,323**	830,471
Process development expenses	**159,888**	380,804
Manufacturing and related process development expenses	**3,302,211**	1,211,275

Our M&P expenses for the nine month period ending September 30, 2019 were $3,302,211 compared to $1,211,275 for the nine month period ending September 30, 2018. During the nine month period ending September 30, 2019, our product manufacturing costs primarily related to the completion of training and engineering production runs as well as shipping and storage costs of our bulk and vialed product. During the nine month period ending September 30, 2018, our product manufacturing costs included shipping and storage costs of our bulk and vialed product along with startup costs for a product fill required to support our clinical development plan. We also incurred costs related to relabeling activities in line with extended stability data.

Our process development expenses for the nine month period ending September 30, 2019 were $159,888 compared to $380,804 for the nine month period ending September 30, 2018. During the nine month period ending September 30, 2019, our process development activities focused on analytic development studies. During the nine month period ending September 30, 2018, our activities focused on analytic development and stability studies.

We still expect our M&P expenses for 2019 to increase compared to 2018. For the remainder of 2019, we expect to fill, label and store sufficient product as well as continue to perform analytical development and other non-clinical projects to support our clinical development program and other collaborative requirements.

Intellectual Property Expenses

	2019 $	2018 $
Intellectual property expenses	**759,339**	814,257

Our intellectual property expenses for the nine month period ending September 30, 2019 were $759,339 compared to $814,257 for the nine month period ending September 30, 2018. The change in intellectual property expenditures reflects the timing of filing costs associated with our patent base. At the end of the nine month period ending September 30, 2019, we had been issued over 399 patents including 48 U.S. and 21 Canadian patents, as well as issuances in other jurisdictions.

We still expect that our intellectual property expenses will remain consistent in 2019 compared to 2018.

Research Collaborations

	2019 $	2018 $
Research collaborations	**102,575**	268,616

Our research collaboration expenses for the nine month period ending September 30, 2019 were $102,575 compared to $268,616 for the nine month period ending September 30, 2018. During the nine month periods ending September 30, 2019 and 2018, our research collaborations included studies investigating the interaction of the immune system and pelareorep. Our research collaborations during the nine month period ending September 30, 2018 also included biomarker studies.

We now expect our research collaboration expenses for 2019 to decrease compared to 2018. We expect to complete our ongoing collaborative program and will continue to be selective in the types of new collaborations we enter into in 2019.

Other Research and Development Expenses

	2019 $	2018 $
R&D salaries and benefits	**1,876,695**	1,821,362
Other R&D expenses	**147,548**	153,315
Other Research and Development expenses	**2,024,243**	1,974,677

Our Other Research and Development expenses for the nine month period ending September 30, 2019 were $2,024,243 compared to $1,974,677 for the nine month period ending September 30, 2018. The change in our R&D salaries and benefits was mainly due to the timing of filling open positions in our U.S. office. Our Other R&D expenses for nine month period ending September 30, 2019 remained consistent with the nine month period ending September 30, 2018.

We still expect our Other R&D expenses will remain consistent in 2019 compared to 2018.

Foreign Exchange Loss (Gain)

	2019 $	2018 $
Foreign exchange loss (gain)	**202,440**	(109,515)

Our foreign exchange loss for the nine month period ending September 30, 2019 was $202,440 compared to a gain of $109,515 for the nine month period ending September 30, 2018. The foreign exchange loss incurred during the nine month period ending September 30, 2019 was primarily due to unrealized translation loss on U.S dollar denominated cash balances, partly offset by unrealized translation gain on U.S. denominated accounts payable. The foreign exchange gain incurred during the nine month period ending September 30, 2018 was primarily due to unrealized translation gain on U.S. dollar denominated cash balances.

Share Based Payments

	2019 $	2018 $
Share based payments	**325,000**	438,469

During the nine month period ending September 30, 2019, our non-cash share based payment expenses were $325,000 compared to $438,469 for the nine month period ending September 30, 2018. We incurred share based payment expenses associated with the vesting of granted options and share awards to officers and employees. In the second quarter of 2018, we also recognized a recovery of share based payment expenses due to the departure of the former Chief Medical Officer and the forfeiture of unvested share awards and options.

Operating Expenses

	2019 $	2018 $
Public company related expenses	**2,499,783**	2,072,598
Office expenses	**2,069,428**	2,234,989
Depreciation - property and equipment	**98,190**	67,682
Depreciation - right-of-use assets	**272,201**	—
Share based payments	**486,491**	494,348
Operating expenses	**5,426,093**	4,869,617

Our operating expenses for the nine month period ending September 30, 2019 were $5,426,093 compared to $4,869,617 for the nine month period ending September 30, 2018. Public company related expenses include costs associated with investor relations, business development and financial advisory activities, legal and accounting fees, corporate insurance, director fees and transfer agent and other fees relating to our U.S. and Canadian stock listings. During the nine month period ending September 30, 2019, our public company related expenses were $2,499,783 compared to $2,072,598 for the nine month period ending September 30, 2018. The change was due to increased investor relations and business development activities, transaction costs of $233,143 related to our August 2019 public offering (see Note 6 of our interim consolidated financial statements), as well as increased insurance premiums. This is partly offset by lower professional fees, including legal fees and costs related to the special meeting of shareholders held in February 2018.

Office expenses include compensation costs (excluding share based payments), rent related to short term leases, and other office related costs. During the nine month period ending September 30, 2019, we incurred office expenses of $2,069,428 compared to $2,234,989 during the nine month period ending September 30, 2018. The change was due to a reduction in office rent expense following the adoption of IFRS 16 with an increase in depreciation of the newly created right-of-use assets (see Note 3 of our interim consolidated financial statements), partly offset by a change in salary levels and an increase in our U.S. headcount.

During the nine month period ending September 30, 2019, our non-cash share based payment expenses were $486,491 compared to $494,348 for the nine month period ending September 30, 2018. We incurred share based payment expenses associated with the vesting of granted options and share awards to officers, employees and non-employee directors.

We still expect our operating expenses to increase in 2019 compared to 2018. We expect to continue to grow our investor relations and business development activities and to continue to invest in our U.S. operations in support of our clinical development program. This increase is expected to be partly offset by a reduction in office rent expense following the adoption of IFRS 16 with an increase in depreciation of the newly created right-of-use assets (see Note 3 of our interim consolidated financial statements).

Commitments

As at September 30, 2019, we are committed to payments totaling approximately $5,599,483 for activities related to our clinical trial, manufacturing and collaboration programs which are expected to occur over the next two years. All of these committed payments are considered to be part of our normal course of business.

Our commitments include one-half of the committed payments related to our collaboration with Merck KGaA, Darmstadt, Germany, and Pfizer Inc, known as BRACELET-1, as the cost of this phase 2 clinical trial will be shared equally between Oncolytics and Pfizer. As at September 30, 2019, we recorded $408,774 (December 31, 2018 - nil) in other receivables related to BRACELET-1 cost recovery from Pfizer.

Summary of Quarterly Results

	2019				2018			2017
	Sept	June	Mar	Dec	Sept	June	Mar	Dec
Revenue	—	—	—	—	—	—	—	—
Net loss[1]	3,529	5,254	4,939	4,819	3,336	4,211	4,671	4,746
Basic and diluted loss per common share[1]	$ 0.16	$ 0.26	$ 0.27	$ 0.28	$ 0.20	$ 0.27	$ 0.31	$ 0.32
Total assets[2]	16,285	15,302	16,461	14,865	18,150	20,693	14,127	18,150
Total cash[2]	12,299	12,276	14,214	13,700	16,214	18,741	7,745	11,836
Total long-term debt	—	—	—	—	—	—	—	—
Cash dividends declared[3]	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

(1) The calculation of basic and diluted loss per common share for all periods has been adjusted retrospectively for the share consolidation on May 22, 2018. Included in net loss and loss per common share between September 2019 and October 2017 are quarterly share based payment expenses of $250,384, $260,184, $300,923, $483,016, $236,607, $157,092, $539,118 and $140,659, respectively.

(2) We issued 7,640,171 common shares and 4,619,773 share purchase warrants for net cash proceeds of $11.7 million in 2019 (2018 - 2,472,909 common shares for net cash proceeds of $13.3 million).

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

Liquidity and Capital Resources

Share Consolidation

On May 22, 2018, we completed the consolidation of our common shares on the basis of 9.5 pre-consolidation common shares for each one post-consolidation common share. Fractional interests were rounded down to the nearest whole number of common shares. Outstanding stock options, restricted share units and performance share units were similarly adjusted by the consolidation ratio. Outstanding warrants were adjusted such that, following the Share Consolidation, 9.5 warrants issued in 2017 will entitle the holder to purchase one whole common share until June 1, 2022.

2019 Financing Activities

Common Stock Purchase Agreement

During the nine month period ending September 30, 2019, we sold 1,379,024 common shares for gross proceeds of US$2,663,768 and issued 11,348 commitment shares. The commitment shares have been valued at fair value of US$21,998 and have been recorded as share issue costs in addition to cash share issue costs of $3,757.

U.S. "at-the-market" equity distribution agreement

During the nine month period ending September 30, 2019, we sold 1,572,745 common shares for gross proceeds of US$3,030,892. We incurred share issue costs of $160,556.

Public offering

On August 16, 2019, pursuant to an underwritten public offering, 4,619,773 units were sold at a purchase price of US$0.81 per unit for gross proceeds of US$3,742,016. Each unit included one common share with a fair value of US$0.54 and one common share purchase warrant with a fair value of US$0.27 (see Note 5 and 6 of our interim consolidated financial statements). Each common share purchase warrant entitles the holder to purchase one common share at an exercise price of US$0.90 until August 16, 2024. We incurred transaction costs of $699,427 of which $466,284 were allocated to share issue costs and $233,143 were allocated to operating expenses, based on their relative fair values.

2018 Financing Activities

Listing on the Nasdaq Capital Market

On June 1, 2018, we announced that our common shares were approved for listing and commenced trading on the Nasdaq Capital Market.

Public offering

On June 5, 2018, we closed a public offering whereby we sold 1,532,278 post-consolidation common shares at a purchase price of US$5.83 per share for gross proceeds of US$8,933,181. We incurred share issue costs of $1,418,356.

Common Stock Purchase Agreement
On September 27, 2018, we entered into a Common Stock Purchase Agreement (the "Agreement") with Lincoln Park Capital Fund, LLC ("LPC") to sell up to US$26.0 million of common stock. Upon signing of the Agreement, LPC purchased 248,762 common shares for gross proceeds of US$1.0 million. We issued an initial commitment fee of 110,754 common shares to LPC valued at fair value of US$455,000. An additional 110,754 common shares will be issued on a pro rata basis under the terms of the Agreement as an additional commitment fee. We issued 4,260 additional commitment fee common shares valued at fair value of US$17,501. The initial commitment fee and additional commitment fee common shares were recorded as share issue costs in addition to cash share issue costs of $151,139.

Canadian "At-the-Market" equity distribution agreement
During the first quarter of 2018, we sold 519,500 pre-consolidation common shares (approximately 54,684 post-consolidation common shares) for net proceeds of $520,315.

Options
During the nine month period ending September 30, 2018, we received cash proceeds of $111,687 with respect to the exercise of 37,592 post-consolidation options (approximately 357,130 pre-consolidation options) by former employees.

Warrants
During the nine month period ending September 30, 2018, we received cash proceeds of $1,417 with respect to the exercise of 1,500 warrants.

Liquidity

As at September 30, 2019, we had cash and cash equivalents and working capital positions as follows:

	September 30, 2019 $	**December 31, 2018 $**
Cash and cash equivalents	**12,298,678**	13,699,881
Working capital position	**11,354,234**	11,637,942

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

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 May 4, 2018, 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 either Canada, the US or both. Under a 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 subject to change, 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 as a result of using our Base Shelf would be used in line with our Board approved budget and multi-year plan. Our renewed Base Shelf will be effective until May 25, 2020.

Our Base Shelf allowed us to enter into our Common Stock Purchase Agreement in September 2018, our ATM equity offering sales agreement in October 2018 and our public offering in August 2019 (see Note 6 of our interim consolidated financial statements). We will use these equity arrangements to assist us in achieving our capital objective. Each arrangement provides us with the opportunity to raise capital at our sole discretion providing us with the ability to better manage our cash resources.

We anticipate that the expected cash usage from our operations in 2019 will be between $18 - $20 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 to fund our presently planned operations to the end of 2019. Factors that will affect our anticipated cash usage in 2019, 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 2019.

Financial Instruments and Other Instruments

Our financial instruments consist of cash and cash equivalents, other receivables, accounts payable and warrant derivative. As at September 30, 2019, the carrying amount of our cash and cash equivalents, other receivables and accounts payable approximated their fair value. In the third quarter of 2019, we issued common share purchase warrants with an exercise price denominated in a currency that differs from our functional currency, which were treated as a derivative measured at fair value with subsequent changes in fair value accounted for through the consolidated statement of loss (see Note 5 and 12 of our interim consolidated financial statements). As a result, we recorded a non-cash change in fair value of warrant derivative of $122,498 in the third quarter of 2019. The fair value of our warrant derivative recognized on the consolidated statements of financial position is based on level 2 (significant observable inputs) as these warrants have not been listed on an exchange and therefore do not trade on an active market. As at September 30, 2019, the fair value of our warrant derivative is $1,774,210 (December 31, 2018 - nil).

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 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.

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.

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. 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 operating and financing activities. As well, we are exposed to currency risk related to our regional licensing agreement, receivables connected with our BRACELET-1 study, and warrant derivative. 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 2019 by approximately $12,394. 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 2019 by approximately $8,964. The impact of a $0.10 increase in the value of the Euro against the Canadian dollar would have increased our net loss in 2019 by approximately $27,532.

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

Balances in foreign currencies at September 30, 2019 are as follows:

	US dollars $	British pounds £	Euro €
Cash and cash equivalents	8,122,210	59,196	27,863
Other receivables	308,672	—	—
Accounts payable	(1,139,291)	(60,207)	(288,857)
Warrant derivative	(1,339,734)	—	—
	5,951,857	(1,011)	(260,994)

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 11 of our interim consolidated financial statements. Accounts payable are all due within the current operating period.

Other MD&A Requirements

We have 26,357,724 common shares outstanding at November 8, 2019. If all of our options, restricted share units and performance share units (1,577,230), common share purchase warrants with a $9.025 exercise price (1,730,894) and common share purchase warrants with a US$0.90 exercise price (3,567,989), were exercised or were to vest, we would have 33,233,837 common shares outstanding.

Our 2018 annual report on Form 20-F is available on www.sedar.com.

Disclosure Controls and Procedures

There were no changes in our internal controls over financial reporting during the quarter ended September 30, 2019 that materially affected or are reasonably likely to materially affect, our internal controls over financial reporting.

Interim Consolidated Financial Statements
(unaudited)

Oncolytics Biotech® Inc.
September 30, 2019 and 2018

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

As at	Notes	September 30, 2019 $	December 31, 2018 $
Assets			
Current assets			
Cash and cash equivalents	*4*	**12,298,678**	13,699,881
Other receivables	*10*	**458,186**	51,650
Prepaid expenses		**2,681,274**	700,986
Total current assets		**15,438,138**	14,452,517
Non-current assets			
Property and equipment		**321,611**	412,736
Right-of-use assets	*3*	**525,508**	—
Total non-current assets		**847,119**	412,736
Total assets		**16,285,257**	14,865,253
Liabilities And Shareholders' Equity			
Current Liabilities			
Accounts payable and accrued liabilities		**3,725,469**	1,825,853
Contract liability	*9*	**—**	927,400
Other liabilities	*3*	**—**	61,322
Lease liabilities	*3*	**358,435**	—
Total current liabilities		**4,083,904**	2,814,575
Non-current liabilities			
Contract liability	*9*	**6,730,287**	5,802,887
Other liabilities	*3*	**—**	52,428
Lease liabilities	*3*	**245,703**	—
Warrant derivative	*5, 12*	**1,774,210**	—
Total non-current liabilities		**8,750,200**	5,855,315
Total liabilities		**12,834,104**	8,669,890
Commitments and contingencies	*10*		
Shareholders' equity			
Share capital Authorized: unlimited Issued: September 30, 2019 – 25,039,920 December 31, 2018 – 17,399,749	*6*	**295,555,692**	285,193,061
Warrants	*6*	**3,617,570**	3,617,570
Contributed surplus	*7*	**28,961,667**	28,260,613
Accumulated other comprehensive income		**520,855**	607,504
Accumulated deficit		**(325,204,631)**	(311,483,385)
Total shareholders' equity		**3,451,153**	6,195,363
Total liabilities and equity		**16,285,257**	14,865,253

See accompanying notes

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

	Notes	Three Month Period Ending September 30, 2019 $	Three Month Period Ending September 30, 2018 $	Nine Month Period Ending September 30, 2019 $	Nine Month Period Ending September 30, 2018 $
Expenses					
Research and development	*7, 14, 15*	**1,618,126**	1,929,405	**8,323,994**	6,909,713
Operating	*7, 14, 15*	**1,834,021**	1,468,262	**5,426,093**	4,869,617
Loss before the following		**(3,452,147)**	(3,397,667)	**(13,750,087)**	(11,779,330)
Change in fair value of warrant derivative	*5*	**(122,498)**	—	**(122,498)**	—
Interest income, net		**46,001**	61,880	**151,339**	109,308
Loss before income taxes		**(3,528,644)**	(3,335,787)	**(13,721,246)**	(11,670,022)
Income tax expense		—	(79)	—	(547,957)
Net loss		**(3,528,644)**	(3,335,866)	**(13,721,246)**	(12,217,979)
Other comprehensive income (loss) items that may be reclassified to net loss					
Translation adjustment		**38,306**	(49,238)	**(86,649)**	85,412
Net comprehensive loss		**(3,490,338)**	(3,385,104)	**(13,807,895)**	(12,132,567)
Basic and diluted loss per common share	***8***	**(0.16)**	(0.20)	**(0.67)**	(0.78)
Weighted average number of shares (basic and diluted)	*8*	**22,642,016**	16,540,612	**20,431,792**	15,646,117

See accompanying notes

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

	Notes	Share Capital $	Warrants $	Contributed Surplus $	Accumulated Other Comprehensive Income $	Accumulated Deficit $	Total $
As at December 31, 2017		271,710,138	3,617,900	27,028,238	373,730	(294,446,160)	8,283,846
Net loss and other comprehensive income		—	—	—	85,412	(12,217,979)	(12,132,567)
Issued pursuant to "At the Market" Agreement	*6*	553,650	—	—	—	—	553,650
Issued pursuant to public offering	*6*	11,606,882	—	—	—	—	11,606,882
Issued pursuant to Common Stock Purchase Agreement	*6*	1,906,152	—	—	—	—	1,906,152
Issued pursuant to stock option plan	*7*	178,322	—	(66,635)	—	—	111,687
Issued pursuant to warrant agreement	*6*	1,747	(330)	—	—	—	1,417
Share based compensation	*7*	—	—	932,817	—	—	932,817
Share issue costs	*6*	(2,214,482)	—	—	—	—	(2,214,482)
As at September 30, 2018		283,742,409	3,617,570	27,894,420	459,142	(306,664,139)	9,049,402
As at December 31, 2018		285,193,061	3,617,570	28,260,613	607,504	(311,483,385)	6,195,363
Net loss and other comprehensive income		—	—	—	(86,649)	(13,721,246)	(13,807,895)
Issued pursuant to incentive share award plan	*7*	110,437	—	(110,437)	—	—	—
Issued pursuant to Common Stock Purchase Agreement	*6*	3,562,608	—	—	—	—	3,562,608
Issued pursuant to "At the Market" Agreement	*6*	4,034,933	—	—	—	—	4,034,933
Issued pursuant to public offering	*5, 6*	3,314,429	—	—	—	—	3,314,429
Share based compensation	*7*	—	—	811,491	—	—	811,491
Share issue costs	*6*	(659,776)	—	—	—	—	(659,776)
As at September 30, 2019		**295,555,692**	**3,617,570**	**28,961,667**	**520,855**	**(325,204,631)**	**3,451,153**

See accompanying notes

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

	Notes	Three Month Period Ending September 30, 2019 $	Three Month Period Ending September 30, 2018 $	Nine Month Period Ending September 30, 2019 $	Nine Month Period Ending September 30, 2018 $
Operating Activities					
Net loss for the period		**(3,528,644)**	(3,335,866)	**(13,721,246)**	(12,217,979)
Depreciation - property and equipment	*14*	**24,483**	26,698	**98,190**	67,682
Depreciation - right-of-use-assets	*3, 14*	**90,522**	—	**272,201**	—
Share based compensation	*7, 14, 15*	**250,384**	236,607	**811,491**	932,817
Interest expense on lease liabilities	*3*	**24,822**	—	**73,399**	—
Unrealized foreign exchange (gain) loss		**(9,865)**	82,643	**104,425**	(19,702)
Onerous lease contract	*14*	**—**	67,588	**—**	67,588
Amortization - lease incentive liability	*14*	**—**	12,494	**—**	12,494
Change in fair value of warrant derivative	*5*	**122,498**	—	**122,498**	—
Net change in non-cash working capital	*13*	**(1,491,146)**	(596,779)	**(412,173)**	3,630,991
Cash used in operating activities		**(4,516,946)**	(3,506,615)	**(12,651,215)**	(7,526,109)
Investing Activities					
Acquisition of property and equipment		**—**	(40,094)	**(9,660)**	(120,156)
Cash used in investing activities		**—**	(40,094)	**(9,660)**	(120,156)
Financing Activities					
Proceeds from exercise of stock options	*7*	**—**	87,777	**—**	111,687
Proceeds from exercise of warrants	*6*	**—**	—	**—**	1,417
Proceeds from Common Stock Purchase Agreement	*6*	**—**	1,143,361	**3,529,672**	1,143,361
Proceeds from "At the Market" equity distribution agreement	*6*	**55,015**	—	**3,874,377**	520,315
Proceeds from public offering	*6*	**4,505,359**	—	**4,505,359**	10,188,526
Payment of lease liabilities	*3*	**(112,070)**	—	**(334,872)**	—
Cash provided by financing activities		**4,448,304**	1,231,138	**11,574,536**	11,965,306
(Decrease) increase in cash		**(68,642)**	(2,315,571)	**(1,086,339)**	4,319,041
Cash and cash equivalents, beginning of period		**12,275,766**	18,741,347	**13,699,881**	11,836,119
Impact of foreign exchange on cash and cash equivalents		**91,554**	(211,429)	**(314,864)**	59,187
Cash and cash equivalents, end of period		**12,298,678**	16,214,347	**12,298,678**	16,214,347

See accompanying notes

Note 1: Incorporation and Nature of Operations

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

Our interim consolidated financial statements for the period ended September 30, 2019, were authorized for issue in accordance with a resolution of the Board of Directors (the "Board") on November 12, 2019. We are a limited company incorporated and domiciled in Canada. Our shares are publicly traded on the Nasdaq Capital Markets and the Toronto Stock Exchange. 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, pelareorep, 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 pelareorep emphasizes three programs: chemotherapy combinations to assist the escape of the virus from the vasculature and enhance its distribution in the tumor; immuno-therapy combinations to create an inflamed phenotype promoting synergies with immune checkpoint inhibitors; and immune modulator/targeted combinations to upregulate natural killer cells promoting synergies with targeted therapies.

Note 2: Basis of Financial Statement Presentation

Our interim consolidated financial statements include our financial statements and the financial statements of our subsidiaries as at September 30, 2019 and are presented in Canadian dollars, our functional currency.

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

These interim consolidated financial statements have been prepared in compliance with International Accounting Standard 34 *Interim Financial Reporting*. The notes presented in these interim consolidated financial statements include only significant events and transactions occurring since our last fiscal year end and are not fully inclusive of all matters required to be disclosed in our annual audited consolidated financial statements. Accordingly, these interim consolidated financial statements should be read in conjunction with our most recent annual audited consolidated financial statements, for the year ended December 31, 2018. We have consistently applied the same accounting policies for all periods presented in these interim consolidated financial statements as those used in our audited consolidated financial statements for the year ended December 31, 2018, except for the adoption of new standards effective as of January 1, 2019.

Note 3: Significant Accounting Policies

Adoption of New Accounting Standards

IFRS 16 *Leases*

IFRS 16 *Leases* (“IFRS 16”) replaces IAS 17 *Leases* (“IAS 17”) and related interpretations for annual periods beginning on or after January 1, 2019. We have adopted IFRS 16 using the modified retrospective approach, under which the cumulative effect of the initial application is recognized in retained earnings at January 1, 2019. We have not restated comparatives for 2018. On transition to IFRS 16, we elected to apply the following practical expedients:

- Applied the exemption for short-term leases that have a remaining lease term of less than 12 months as at January 1, 2019;
- Excluded initial direct costs for the measurement of right-of-use assets as at January 1, 2019;

- Relied upon our assessment of whether leases are onerous under the requirement of IAS 37, *Provisions, contingent liabilities and contingent assets* as at December 31, 2018 as an alternative to reviewing our right-of-use assets for impairment; and
- Measured the right-of-use assets at an amount equal to the lease liability, adjusted by the amount of lease incentive liability related to that lease recognized in the statement of financial position immediately before the date of initial application.

We have elected not to separate fixed non-lease components from lease components and instead account for each lease component and associated fixed non-lease components as a single lease component.

On transition to IFRS 16, the Company recognized $882,437 of lease liabilities. Lease liabilities have been measured by discounting future lease payments using the Company's incremental borrowing rate at January 1, 2019 as rates implicit in the leases were not readily determinable. The weighted-average rate applied was 15%.

The following table summarizes the impacts of adopting IFRS 16 on the consolidated financial statements:

		Impact of changes	
	As reported as at December 31, 2018	**Effects of IFRS 16 transition**	**Subsequent to transition as at January 1, 2019**
Right-of-use assets	—	808,025	808,025
Other current and non-current assets	14,865,253	—	14,865,253
Total assets	14,865,253	808,025	15,673,278
Other liabilities	113,750	(74,412)	39,338
Lease liabilities	—	882,437	882,437
Other current and non-current liabilities	8,556,140	—	8,556,140
Total liabilities	8,669,890	808,025	9,477,915
Total shareholders' equity	6,195,363	—	6,195,363

Prior to adopting IFRS 16, our total minimum operating lease commitments as at December 31, 2018 were $961,575. The difference between the total of the minimum lease payments set out in Note 11 of our 2018 annual consolidated financial statements and the total lease liabilities recognized on transition was a result of the effect of discounting on the minimum lease payments.

Explanatory information
Our portfolio of leases consists of office spaces. We currently do not have leases with variable lease payments, residual value guarantees, extension or termination options, or leases not yet commenced to which we are committed. Our total undiscounted lease liability as at September 30, 2019 is as follows:

Maturity analysis - contractual undiscounted cash flows	
	September 30, 2019
Less than one year	423,521
One to five years	261,801
More than five years	—
Total undiscounted lease liability as at September 30, 2019	685,322

Accounting policy
At inception of a contract, we assess whether a contract is, or contains a lease by determining whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, we assess whether:

- the contract involves the use of an identified asset;
- we have the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use; and
- we have the right to direct the use of the identified asset.

A right-of-use asset and corresponding lease liability is recognized on the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term. In addition, the right-of-use asset is reduced by impairment losses and adjusted for certain remeasurements of the lease liabilities, if any.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date. The lease payments are discounted using the implicit interest rate in the lease. If the rate cannot be readily determined, our incremental rate of borrowing is used. The lease liability is subsequently measured at amortized cost using the effective interest method. The lease liability is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in our estimate of the amount expected to be payable under a residual value guarantee, if we change our assessment of whether we will exercise a purchase, extension or termination option, or if the underlying lease contract is amended.

We have elected not to separate fixed non-lease components from lease components and instead account for each lease component and associated fixed non-lease components as a single lease component.

We have elected not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less. We recognize the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Significant Judgments, Estimates and Assumptions
We make judgments in determining whether a contract contains an identified asset. The identified asset should be physically distinct or represent substantially all of the capacity of the asset, and should provide us with the right to substantially all of the economic benefits from the use of the asset.

We also make judgments in determining whether or not we have the right to control the use of the identified asset. We have that right when we have the decision-making rights that are most relevant to changing how and for what purpose the asset is used. In rare cases where the decisions about how and for what purpose the asset is used are predetermined, we have the right to direct the use of the asset if we have the right to operate the asset or if we designed the asset in a way that predetermines how and for what purpose the asset will be used.

We make judgments in determining the incremental borrowing rate used to measure our lease liability for each lease contract, including an estimate of the asset-specific security impact. The incremental borrowing rate should reflect the interest that we would have to pay to borrow at a similar term and with a similar security.

Note 4: Cash Equivalents

Cash Equivalents
Cash equivalents consist of interest bearing deposits with our bank totaling $9,610,737 (December 31, 2018 – $9,977,409). The current annual interest rate earned on these deposits is 2.69% (December 31, 2018 – 2.71%).

Note 5: Warrant Derivative

On August 16, 2019, pursuant to an underwritten public offering, 4,619,773 units were sold at a purchase price of US$0.81 per unit for gross proceeds of US$3,742,016. Each unit included one common share and one common share purchase warrant (see Note 6). Each common share purchase warrant entitles the holder to purchase one common share at an exercise price of US$0.90 until August 16, 2024. We incurred transaction costs of $699,427 of which $466,284 were allocated to share issue costs and $233,143 were allocated to operating expenses, based on their relative fair values.

Under IFRS 9 *Financial Instruments* and IAS 32 *Financial Instruments: Presentation*, warrants with an exercise price denominated in a currency that differs from an entity's functional currency are treated as a derivative measured at fair value with subsequent changes in fair value accounted for through the consolidated statement of loss. Our warrants with an exercise price of US$0.90 meet this requirement and we have presented the value of these warrants as a non-current liability on the consolidated statement of financial position. Upon exercise, the recorded liability will be included in our share capital along with the proceeds from the exercise. If these warrants expire, the related liability is reversed through the consolidated statement of loss. There is no cash flow impact as a result of the accounting treatment for changes in the fair value of the warrant derivative or when warrants expire unexercised.

Estimating the fair value for our warrant derivative requires determining the most appropriate valuation model which is dependent on the terms and conditions of the issuance. This estimate also requires determining the most appropriate inputs to the valuation model, including the expected life of the warrant derivative, expected share price volatility and expected dividend yield and making assumptions about them.

A reconciliation of the change in fair value of the warrant derivative is as follows:

	Fair Value of Warrant Derivative
Balance, August 16, 2019	1,657,214
Change in fair value of warrant derivative	122,498
Foreign exchange impact	(5,502)
Balance, September 30, 2019	1,774,210

The estimated fair value of the warrant derivative issued during the period was determined using the Black-Scholes valuation model using the following assumptions:

	September 30, 2019	August 16, 2019
Fair value of warrants	US$0.29	US$0.27
Risk-free interest rate	1.55%	1.42%
Expected hold period to exercise	4.0 years	4.0 years
Expected share price volatility	83.00%	82.00%
Expected dividend yield	Nil	Nil

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

The following table summarizes our outstanding warrant derivative at September 30, 2019:

Exercise Price	Outstanding, Beginning of the Period	Granted During the Period	Outstanding, End of the Period	Weighted Average Remaining Contractual Life (years)
US$0.90	—	4,619,773	4,619,773	4.88

Note 6: Share Capital

Authorized:
Unlimited number of no par value common shares

Share Consolidation:
On May 22, 2018, we completed the consolidation of our common shares on the basis of 9.5 pre-consolidation common shares for each one post-consolidation common share (the "Share Consolidation"). Fractional interests were rounded down to the nearest whole number of common shares. Outstanding stock options, restricted share units and performance share units were similarly adjusted by the consolidation ratio. Outstanding warrants were adjusted such that, following the Share Consolidation, 9.5 warrants issued in 2017 will entitle the holder to purchase one whole common share until June 1, 2022.

Issued:	Shares		Warrants	
	Number	Amount $	Number	Amount $
Balance, December 31, 2017	141,805,722	271,710,138	16,445,000	3,617,900
Issued pursuant to "At the Market" equity distribution agreement[(a)]	519,500	553,650	—	—
Share issue costs	—	(33,335)	—	—
Issued pursuant to stock option plan	71,000	38,269	—	—
Balance, May 22, 2018 - pre-consolidation	142,396,222	272,268,722	16,445,000	3,617,900
Balance, May 22, 2018 - post-consolidation	14,988,995	272,268,722	16,445,000	3,617,900
Issued pursuant to public offering[(b)]	1,532,278	11,606,882	—	—
Issued pursuant to warrant agreement	157	1,747	(1,500)	(330)
Issued pursuant to stock option plan	34,329	158,976	—	—
Issued pursuant to incentive share award plan	28,297	109,751	—	—
Issued pursuant to Common Stock Purchase Agreement[(c)]	797,691	3,314,097	—	—
Issued pursuant to "At the Market" equity distribution agreement[(d)]	18,002	66,360	—	—
Share issue costs	—	(2,333,474)	—	—
Balance, December 31, 2018	17,399,749	285,193,061	16,443,500	3,617,570
Issued pursuant to incentive share award plan	57,281	110,437	—	—
Issued pursuant to Common Stock Purchase Agreement[(c)]	1,390,372	3,562,608	—	—
Issued pursuant to "At the Market" equity distribution agreement[(d)]	1,572,745	4,034,933	—	—
Issued pursuant to public offering[(e)]	4,619,773	3,314,429	—	—
Share issue costs	—	(659,776)	—	—
Balance, September 30, 2019	**25,039,920**	**295,555,692**	**16,443,500**	**3,617,570**

(a) On February 25, 2016, we entered into an 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 allowed 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"). During the period ending September 30, 2018, we sold 519,500 pre-consolidation shares (approximately 54,682 post-consolidation shares) for gross proceeds of $553,650. We incurred share issue costs of $33,335.

(b) On June 5, 2018, pursuant to an underwritten public offering, 1,532,278 common shares were sold at a purchase price of US $5.83 per share for gross proceeds of US$8,933,181. We incurred share issue costs of $1,418,356.

(c) On September 27, 2018, we entered into a Common Stock Purchase Agreement (the "Agreement") with Lincoln Park Capital Fund, LLC ("LPC"). Subject to the terms and conditions of the Agreement and at our sole discretion, we may sell up to US $26,000,000 worth of common shares to LPC over the 30-month term. The purchase price of the common shares will be based on the prevailing market prices immediately preceding the notice of sale without any fixed discount. Subject to the terms of the Agreement, we control the timing and amount of any future investment and LPC is obligated to make such purchases, if and when we elect. The Agreement does not impose any upper price limit restrictions, negative covenants or restrictions on our future financing activities. However, in no event will shares be sold to LPC on a day the closing sale price for the common shares is less than the floor price of US$1.00 per common share; or at a price per share that is less than the volume weighted average trading pricing of the common shares on the TSX for the five immediately preceding trading days, less the maximum applicable discount allowed by the TSX. We can terminate the Agreement at any time at our sole discretion without any monetary cost or penalty.

During the period ending September 30, 2019, we sold 1,379,024 (September 30, 2018 - 248,762) common shares for gross proceeds of US$2,663,768 (September 30, 2018 - US$1,000,000) and issued 11,348 commitment shares (September 30, 2018 - 115,014). The commitment shares have been valued at fair value of US$21,998 (September 30, 2018 - US$472,501) and have been recorded as share issue costs in addition to cash share issue costs of $3,757 (September 30, 2018 - $151,139).

(d) On October 24, 2018, we entered into an ATM equity offering sales agreement with Canaccord Genuity Inc. The ATM allows us, at our sole discretion, to issue common shares, at prevailing market price, with an aggregate offering value of up to US $30,000,000 over a 19-month period through the facilities of the Nasdaq Capital Market in the United States. During the period ending September 30, 2019, we sold 1,572,745 common shares (September 30, 2018 - nil) for gross proceeds of US $3,030,892 (September 30, 2018 - nil). We incurred share issue costs of $160,556 (2018 - nil).

(e) On August 16, 2019, pursuant to an underwritten public offering, 4,619,773 units were sold at a purchase price of US$0.81 per unit for gross proceeds of US$3,742,016. Each unit included one common share with a fair value of US$0.54 and one common share purchase warrant with a fair value of US$0.27 (see Note 5). Each common share purchase warrant entitles the holder to purchase one common share at an exercise price of US$0.90 until August 16, 2024. We incurred transaction costs of $699,427 of which $466,284 were allocated to share issue costs and $233,143 were allocated to operating expenses, based on their relative fair values.

Warrants

The following table summarizes our outstanding equity warrants at September 30, 2019:

Exercise Price	Outstanding, Beginning of the Period	Outstanding, End of the Period[(1)]	Weighted Average Remaining Contractual Life (years)
$ 9.025	16,443,500	16,443,500	2.67

(1) Exercisable into 1,730,894 common shares.

Note 7: Share Based Payments

Stock Option Plan

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

	2019		2018	
	Stock Options	Weighted Average Exercise Price $	Stock Options	Weighted Average Exercise Price $
Outstanding, beginning of the period	**1,249,361**	**8.73**	647,156	13.20
Granted during the period	**20,000**	**2.12**	327,467	7.38
Forfeited during the period	**(9,787)**	**13.64**	(90,817)	11.74
Exercised during the period	—	—	(37,592)	2.97
Outstanding, end of the period	**1,259,574**	**8.58**	846,214	11.56
Options exercisable, end of the period	**854,129**	**10.56**	598,222	13.56

The following table summarizes information about the stock options outstanding and exercisable at September 30, 2019:

Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price $	Number Exercisable	Weighted Average Exercise Price $
$2.12 - $3.99	731,827	5.2	3.18	452,494	3.24
$4.84 - $7.81	329,777	3.0	7.21	203,665	7.13
$13.77 - $19.00	90,203	4.0	16.95	90,203	16.95
$20.23 - $36.96	49,410	2.1	32.56	49,410	32.56
$38.09 - $63.84	58,357	2.2	50.85	58,357	50.85
	1,259,574	4.3	8.58	854,129	10.56

Non-exercisable options vest annually over periods ranging from one to three years.

The estimated fair value of stock options granted during the period was determined using the Black-Scholes valuation model using the following weighted average assumptions:

	2019	2018
Risk-free interest rate	**1.52%**	1.89%
Expected hold period to exercise	**3.0 years**	3.0 years
Expected share price volatility	**74.02%**	83.94%
Expected forfeiture rate	**3.67%**	3.67%
Expected dividend yield	**Nil**	Nil
Weighted average fair value of options	**$1.04**	$4.03

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

Incentive Share Award Plan

Restricted Share Units

We have issued restricted share units ("RSUs") to non-employee directors through our incentive share award plan. Grants of RSUs to non-employee directors vest either immediately, on the third anniversary date from the grant date or when the director ceases to be a member of the board. We have also issued RSUs to certain officers and employees of the Company. Grants of RSUs to certain officers and employees of the Company vest over a three year period. The following RSUs are outstanding at September 30:

	2019	2018
Outstanding, beginning of the period	**260,755**	190,407
Granted during the period	**45,963**	8,891
Forfeited during the period	**—**	(2,105)
Vested during the period	**(55,176)**	—
Outstanding, end of the period	**251,542**	197,193

(1) The weighted average fair value of the RSUs granted was $1.42 in 2019 (2018 - $6.27).

Performance Share Units

We have also issued performance share units ("PSUs") to certain officers and employees of the Company. Grants of PSUs require completion of certain performance criteria and cliff vest after 3 years or vest over a three year period, depending on the grant. PSU grants to certain officers will vest immediately upon a change of control of the Company. If certain officers cease employment with the Company, vesting occurs on a pro rata basis prior to the third anniversary of the grant but after the first anniversary. The following PSUs are outstanding at September 30:

	2019	2018
Outstanding, beginning of the period	**63,156**	94,734
Forfeited during the period	**—**	(31,578)
Vested during the period	**(2,105)**	—
Outstanding, end of the period	**61,051**	63,156

We have reserved 2,503,992 common shares for issuance relating to our outstanding equity compensation plans. Compensation expense related to stock options, RSUs and PSUs was $250,384 and $811,491 for the three and nine month periods ending September 30, 2019, respectively (September 30, 2018 - $236,607 and $932,817, respectively).

Note 8: 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 three and nine month periods ended September 30, 2019 of 22,642,016 and 20,431,792, respectively (September 30, 2018 - 16,540,612 and 15,646,117, respectively). 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 9: Contract Liability

Regional licensing agreement
We entered into a regional licensing agreement (the "Licensing Agreement") with Adlai Nortye Biopharma Co., Ltd. ("Adlai") in November 2017. Under the terms of the Licensing Agreement, Adlai will have exclusive development and commercialization rights to pelareorep in China, Hong Kong, Macau, Singapore, South Korea and Taiwan. We are entitled to receive upfront license fees, development and regulatory milestone payments, royalties and sales-based milestone payments.

Warrant purchase agreement
We also entered into a warrant purchase agreement with Adlai. As at September 30, 2019, we were entitled to the following:

- One common share purchase warrant of US$6 million whereby, upon exercise, Adlai may purchase our common shares priced at a 20% premium to the five-day weighted average closing price immediately preceding the exercise date. We have the right to call this warrant upon the enrollment of the 50th patient in the phase 3 metastatic breast cancer study. This common share purchase warrant expires on November 14, 2020.

Contract liability
Our contract liability balance, which we expect to record in revenue over the next five years, is as follows:

	September 30, 2019 $	**December 31, 2018 $**
Balance, beginning of the period	**6,730,287**	6,182,580
Regional licensing agreement	**—**	547,707
Revenue recognized in the period	**—**	—
Balance, end of the period	**6,730,287**	6,730,287
Contract liability - current	**—**	927,400
Contract liability - non-current	**6,730,287**	5,802,887
	6,730,287	6,730,287

Note 10: Commitments

We are committed to payments totaling $5,599,483 for activities related to our clinical trial, manufacturing and collaboration programs which are expected to occur over the next two years.

Our commitments include one-half of the committed payments related to our collaboration with Merck KGaA, Darmstadt, Germany, and Pfizer Inc, known as BRACELET-1 (**BR**east c**A**n**CE**r with the Oncolytic Reovirus Pe**L**areor**E**p in Combina**T**ion with anti-PD-L1 and Paclitaxel), as the cost of this phase 2 clinical trial will be shared equally between Oncolytics and Pfizer. As at September 30, 2019, we recorded $408,774 (December 31, 2018 - nil) in other receivables related to BRACELET-1 cost recovery from Pfizer.

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: 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 and cash and cash equivalents in the definition of capital.

	September 30, 2019 $	December 31, 2018 $
Cash and cash equivalents	**12,298,678**	13,699,881
Shareholders' equity	**3,451,153**	6,195,363

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

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 May 4, 2018, 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 either Canada, the US or both. Under a 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 subject to change, 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 as a result of using our Base Shelf would be used in line with our Board approved budget and multi-year plan. Our renewed Base Shelf will be effective until May 25, 2020.

Our Base Shelf allowed us to enter into our Common Stock Purchase Agreement in September 2018, our ATM equity offering sales agreement in October 2018 and our public offering in August 2019 (see Note 6). We will use these equity arrangements to assist us in achieving our capital objective. Each arrangement provides us with the opportunity to raise capital at our sole discretion providing us with the ability to better manage our cash resources.

We are not subject to externally imposed capital requirements and there have been no changes in how we define or manage our capital in 2019.

Note 12: Financial Instruments

Our financial instruments consist of cash and cash equivalents, other receivables, accounts payable and warrant derivative. As at September 30, 2019, the carrying amount of our cash and cash equivalents, other receivables and accounts payable approximated their fair value. The fair value of our warrant derivative recognized on the consolidated statements of financial position is based on level 2 (significant observable inputs) as these warrants have not been listed on an exchange and therefore do not trade on an active market. As at September 30, 2019, the fair value of our warrant derivative was $1,774,210 (December 31, 2018 - nil).

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 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.

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.

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. 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 operating and financing activities. As well, we are exposed to currency risk related to our regional licensing agreement, receivables connected with our BRACELET-1 study, and warrant derivative. 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 2019 by approximately $12,394. 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 2019 by approximately $8,964. The impact of a $0.10 increase in the value of the Euro against the Canadian dollar would have increased our net loss in 2019 by approximately $27,532.

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

Balances in foreign currencies at September 30, 2019 are as follows:

	US dollars $	**British pounds** £	**Euro** €
Cash and cash equivalents	8,122,210	59,196	27,863
Other receivables	308,672	—	—
Accounts payable	(1,139,291)	(60,207)	(288,857)
Warrant derivative	(1,339,734)	—	—
	5,951,857	(1,011)	(260,994)

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

Note 13: Additional Cash Flow Disclosures

Net Change In Non-Cash Working Capital

	Three Month Period Ending September 30, 2019 $	Three Month Period Ending September 30, 2018 $	Nine Month Period Ending September 30, 2019 $	Nine Month Period Ending September 30, 2018 $
Change in:				
Contract receivable	**—**	—	**—**	4,767,100
Other receivables	**(413,908)**	32,819	**(406,536)**	(19,169)
Prepaid expenses	**(657,069)**	39,182	**(1,980,288)**	(273,967)
Accounts payable and accrued liabilities	**(368,715)**	(799,407)	**1,899,616**	(1,486,992)
Contract liability	**—**	—	**—**	547,707
Other liabilities	**—**	50,575	**(39,338)**	50,575
Non-cash impact of foreign exchange	**(51,454)**	80,052	**114,373**	45,737
Change in non-cash working capital related to operating activities	**(1,491,146)**	(596,779)	**(412,173)**	3,630,991

Other Cash Flow Disclosures

	Three Month Period Ending September 30, 2019 $	Three Month Period Ending September 30, 2018 $	Nine Month Period Ending September 30, 2019 $	Nine Month Period Ending September 30, 2018 $
Cash interest received	**70,823**	61,880	**224,738**	109,308
Cash taxes paid	**1,085**	—	**5,461**	3,752

Note 14: 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 depreciation of property and equipment, depreciation of right-of-use assets, non-cash stock based compensation associated with operating activities, and transactions costs related to our warrant derivative as a component of operating expenses.

	Three Month Period Ending September 30, 2019 $	Three Month Period Ending September 30, 2018 $	Nine Month Period Ending September 30, 2019 $	Nine Month Period Ending September 30, 2018 $
Included in research and development expenses:				
Realized foreign exchange loss (gain)	**4,572**	43,104	**11,261**	(4,401)
Unrealized non-cash foreign exchange (gain) loss	**(46,190)**	131,882	**191,179**	(105,114)
Non-cash share based compensation	**101,401**	107,960	**325,000**	438,469
Included in operating expenses				
Depreciation - property and equipment	**24,483**	26,698	**98,190**	67,682
Depreciation - right-of-use-assets	**90,522**	—	**272,201**	—
Non-cash share based compensation	**148,983**	128,647	**486,491**	494,348
Transaction costs, warrant derivative	**233,143**	—	**233,143**	—
Onerous lease contract	—	67,588	—	67,588
Amortization - lease incentive liability	—	12,494	—	12,494

Note 15: Related Party Transactions

Compensation of Key Management Personnel

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

	Three Month Period Ending September 30, 2019 $	Three Month Period Ending September 30, 2018 $	Nine Month Period Ending September 30, 2019 $	Nine Month Period Ending September 30, 2018 $
Short-term employee compensation and benefits	**615,207**	399,855	**1,993,227**	1,356,410
Share-based payments	**220,055**	185,643	**723,856**	672,325
	835,262	585,498	**2,717,083**	2,028,735

Shareholder Information

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

Oncolytics Biotech Inc.
Suite 210, 1167 Kensington Crescent NW
Calgary, Alberta, Canada T2N 1X7
tel: 403.670.7377 fax: 403.283.0858
www.oncolyticsbiotech.com

Officers

Matt Coffey, PhD, MBA
President and Chief Executive Officer
Kirk Look, CA
Chief Financial Officer
Rita Laeufle, MD, PhD
Chief Medical Officer
Andrew de Guttadauro
President, Oncolytics Biotech (U.S.) Inc.

Directors

Deborah M. Brown, BSc, MBA
Managing Partner, Accelera Canada
Matt Coffey, PhD, MBA
President and CEO, Oncolytics Biotech Inc.
Angela Holtham, MBA, FCPA, FCMA, ICD.D
Corporate Director
Leonard Kruimer, MBA, CPA
Corporate Director
Wayne Pisano
Corporate Director
William G. Rice, PhD
Chairman, President and CEO, Aptose Biosciences, Inc.
Bernd R. Seizinger, MD, PhD
Corporate Director

Oncolytics Biotech Inc.
Suite 210, 1167 Kensington Crescent NW, Calgary, AB T2N 1X7
Phone: (403) 670.7377 Fax: (403) 283.0858
www.oncolyticsbiotech.com