ONCOLYTICS BIOTECH INC
Form 6-K
May 01, 2008

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 6-K

Report of Foreign Private Issuer

Pursuant to Rule 13a-16 or 15d-16
of the Securities Exchange Act of 1934

For the month of April 2008

Commission File Number 000-31062

Oncolytics Biotech Inc.

(Translation of registrant s name into English)

Suite 210, 1167 Kensington Crescent NW
Calgary, Alberta, Canada T2N 1X7

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F þ Form 40-F o

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): o

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): o

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant s home country), or under the rules of the home country exchange on which the registrant s securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant s security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes o No þ

If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82 - _____

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Oncolytics Biotech Inc.
(Registrant)

Date: April 30, 2008

By: /s/ Doug Ball

Doug Ball
Chief Financial Officer

First Quarter Report
March 31, 2008

Oncolytics Biotech Inc.
TSX: ONC
NASDAQ: ONCY

First Quarter Report

For the quarter ended March 31, 2008

Letter to Shareholders

The year 2008 is shaping up to be an exciting and rewarding time for Oncolytics as we begin to see early results from our Phase II and combination REOLYSIN® and chemotherapy clinical trials.

Significant Clinical advances

At the end of January, we announced that we had met the initial criteria to proceed to full enrolment in our U.S. Phase II sarcoma trial. According to the trial protocol, we had to demonstrate that at least one patient in the first 38 patients treated experienced a complete or partial response, or stable disease for greater than six months. The third patient treated in the trial was demonstrated to have stable disease by RECIST criteria for more than six months as measured by CT and PET scans. In addition, the PET scan indicated that any residual tumour mass was metabolically inactive. The trial continues to enroll patients at four sites in the U.S.

Just subsequent to the quarter end, we also announced positive interim results from our U.K. combination REOLYSIN® and paclitaxel/carboplatin trial, particularly in patients with head and neck cancer. In the first cohort of patients treated, a patient with head and neck cancer received 8 cycles of treatment and achieved a clinical complete response. In the second cohort, two patients with head and neck cancers with widespread disseminated disease achieved significant partial responses after six cycles of treatment. Two of the three patients, including the patient with the clinical complete response, had previously received cisplatin/5-FU treatment and all three had previously received radiotherapy. Considering the prognosis for recurrent patients, we believe these early results to be very encouraging.

Also in January, we announced that the U.S. National Cancer Institute (NCI) filed a protocol with the U.S. Food and Drug Administration (FDA) for a Phase I/II clinical trial for patients with metastatic ovarian, peritoneal or fallopian tube cancers using concurrent systemic and intraperitoneal administration of REOLYSIN®. The trial, which is being carried out at the Ohio State University Comprehensive Cancer Center, began recruiting patients in April.

The NCI also began recruiting patients in April for its Phase II clinical trial for patients with metastatic melanoma using systemic administration of REOLYSIN®. The trial is being carried out by the Mayo Phase 2 Consortium.

The investigators for our first U.K. Phase I systemic administration trial published the results of their work characterizing immune system responses to REOLYSIN® in the March 6 issue of Gene Therapy. This important work further defines the relationship between viral therapy and human immune responses. The results of the research suggest that reovirus may stimulate the immune system to mount a dynamic immune response to the presence of virus, increasing the potential to significantly enhance the efficacy of oncolytic virotherapy. With our collaborators, we continue to investigate the interaction between the immune system and the reovirus both in the lab and the clinic.

Preclinical Support Expands

Our collaborators continue to report results of preclinical studies that fully support the development of our human clinical program. In the first quarter, two of our collaborators published results of preclinical studies in *Clinical Cancer Research*. The first paper, published in January, demonstrated that using cyclophosphamide prior to systemic reovirus administration resulted in increased survival with only mild toxicities. The second paper, published in February, demonstrated that combining reovirus and radiotherapy significantly increased cancer cell killing both *in vitro* and *in vivo*, particularly in cell lines with moderate susceptibility to reovirus alone.

At the American Association for Cancer Research (AACR) meeting in San Diego in April, two of our collaborators presented the results of research using reovirus as a purging agent during autologous blood

stem transplants, and also as a treatment in combination with radiation for childhood sarcomas. This work highlights future potential opportunities for REOLYSIN® as a cancer therapy.

Intellectual Property Continuing to Grow

We continue to add to our intellectual property as we learn more about oncolytic viruses and their ability to treat many types of human cancers. In the quarter, we secured an additional two Canadian patents covering the use of reovirus for cancers that have inactivated or deleted PKR, and the use of other modified oncolytic viruses to purge contaminating cancer cells from stem cell preparations used for transplants. We also secured a U.S. patent that covers the use of adenoviruses modified to selectively replicate in cancer cells that have an activated Ras pathway, a common mutation in cancer cells.

Looking Ahead

We are currently enrolling or recruiting patients in a total of nine clinical studies, four exploring the use of REOLYSIN® as a monotherapy, and five exploring the use of REOLYSIN® in combination with a variety of chemotherapies and radiotherapy. In 2008, we expect to report interim or final results on a number of our ongoing clinical trials. We are rapidly moving toward the point where we can expect to make pivotal clinical trial decisions about REOLYSIN®. It is an exciting time for Oncolytics and our shareholders.

On behalf of the Board of Directors and the staff at Oncolytics, thank you for your continued support and encouragement.

Brad Thompson, PhD
President and CEO
April 30, 2008

April 30, 2008

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

This discussion and analysis should be read in conjunction with the unaudited consolidated financial statements of Oncolytics Biotech Inc. as at and for the three months ended March 31, 2008 and 2007, and should also be read in conjunction with the audited 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, 2007. The financial statements have been prepared in accordance with Canadian generally accepted accounting principles (GAAP).

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. Forward-looking statements, including our belief as to the potential of REOLYSIN® as a cancer therapeutic and our expectations as to the success of our research and development and manufacturing programs in 2008 and beyond, future financial position, business strategy and plans for future operations, and statements that are not historical facts, involve known and unknown risks and uncertainties, which could cause our actual results to differ materially from those in the forward-looking statements. Such risks and uncertainties include, among others, the need for and availability of funds and resources to pursue research and development projects, the efficacy of REOLYSIN® as a cancer treatment, the success and timely completion of clinical studies and trials, our ability to successfully commercialize REOLYSIN®, uncertainties related to the research, development and manufacturing of pharmaceuticals, uncertainties related to competition, changes in technology, the regulatory process and general changes to the economic environment. Investors should consult our quarterly and annual filings with the Canadian and U.S. securities commissions for additional information on risks and uncertainties relating to the forward-looking statements. Forward-looking statements are based on assumptions, projections, estimates and expectations of management at the time such forward-looking statements are made, and such assumptions, projections, estimates and/or expectations could change or prove to be incorrect or inaccurate. Investors are cautioned against placing undue reliance on forward-looking statements. We do not undertake to update these forward-looking statements.

OVERVIEW

Oncolytics Biotech Inc. is a Development Stage Company

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

General Risk Factors

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

If a product is approved for sale, product manufacturing at a commercial scale and significant sales to end users at a commercially reasonable price may not be successful. There can be no assurance that we will generate adequate funds to continue development, or will ever achieve significant revenues or profitable

operations. Many factors (e.g. competition, patent protection, appropriate regulatory approvals) can influence the revenue and product profitability potential.

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

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

REOLYSIN® Development Update for the First Quarter of 2008

We continue to develop our lead product REOLYSIN® as a potential cancer therapy. Our goal each year is to advance REOLYSIN® through the various steps and stages of development required for pharmaceutical products. In order to achieve this goal, we actively manage the development of our clinical trial program, our pre-clinical and collaborative programs, our manufacturing process and supply, and our intellectual property.

Clinical Trial Program

During the first quarter of 2008 our clinical trial program expanded to nine clinical trials of which seven are being conducted by us and two are being sponsored by the U.S. National Cancer Institute (NCI).

Clinical Trials Actively Enrolling

During the first quarter of 2008, we continued to enroll patients in our Phase II combination REOLYSIN®/radiation and our three Phase I/II chemotherapeutic co-therapy clinical trials in the U.K. In the U.S., we continued to enroll patients in our Phase II sarcoma and in our Phase I/II recurrent malignant glioma clinical trials.

Clinical Trials Expanded Enrollment

During the first quarter of 2008, we announced that we had met the initial criteria to proceed to full enrolment in our U.S. Phase II trial to evaluate the intravenous administration of REOLYSIN® in patients with various sarcomas that have metastasized to the lung.

According to the trial protocol, to proceed to full enrolment of 52 patients, we had to demonstrate that at least one patient in the first 38 patients treated experienced a complete or partial response, or stable disease for greater than six months. The third patient treated in the study was demonstrated to have stable disease by RECIST criteria for more than six months as measured by CT scan. A PET scan taken at the same time showed that any residual mass was metabolically inert.

This trial is a Phase II, open-label, single agent study whose primary objective is to measure tumour responses and duration of response, and to describe any evidence of antitumour activity of intravenous, multiple dose REOLYSIN® in patients with bone and soft tissue sarcomas metastatic to the lung. REOLYSIN® is delivered intravenously to patients at a dose of $3x10^{10}$ $TCID_{50}$ for five consecutive days. Patients may receive additional five-day cycles of therapy every four weeks for a maximum of eight cycles. Up to 52 patients will be enrolled in the study.

Eligible patients must have a bone or soft tissue sarcoma metastatic to the lung deemed by their physician to be unresponsive to or untreatable by standard therapies. These include patients with osteosarcoma, Ewing sarcoma family tumours, malignant fibrous histiocytoma, synovial sarcoma, fibrosarcoma and leiomyosarcoma.

Clinical Trials Recently Filed Application

In the first quarter of 2008, the NCI filed a protocol with the U.S. Food and Drug Administration for a Phase I/II clinical trial for patients with metastatic ovarian, peritoneal or fallopian tube cancers using concurrent systemic and intraperitoneal administration of REOLYSIN®. The trial, which is being carried out at The Ohio State University Comprehensive Cancer Center, is expected to enroll up to 70 patients with metastatic ovarian, peritoneal or fallopian tube cancers. These cancer indications were selected after comprehensive preclinical studies carried out by the NCI indicated the reovirus can kill ovarian cancer cells.

Pre-Clinical Trial and Collaborative Program

In the first quarter of 2008, we reported that a research group led by Dr. Richard Vile of the Mayo Clinic College of Medicine in Rochester, Minnesota, published the results of its work testing the antitumor efficacy and safety of various combinations of reovirus and cyclophosphamide *in vivo*. The paper, entitled Cyclophosphamide Facilitates Antitumor Efficacy against Subcutaneous Tumors following Intravenous Delivery of Reovirus appeared online in the January 1, 2008 issue of *Clinical Cancer Research*.

The purpose of the research study was to investigate whether it was possible to use cyclophosphamide, an immune modulator, to enhance the delivery and replication of the reovirus when delivered intravenously. After testing various doses and dosing regimens of reovirus and cyclophosphamide in mice, a metronomic dosing regimen was developed that resulted in increased survival, high levels of reovirus recovered from regressing tumors, levels of neutralizing antibodies that were protective, and only very mild toxicities. The data support investigation in human clinical trials of the use of cyclophosphamide prior to systemic reovirus administration to modulate, but not ablate, the immune system.

We also reported that Dr. Kevin Harrington and his research group at The Institute of Cancer Research, London, U.K. published the results of their work testing combination treatment schedules of reovirus and radiation in human and murine tumour cells *in vitro* and *in vivo*. The paper, entitled Enhanced In vitro and In vivo Cytotoxicity of Combined Reovirus and Radiotherapy appeared online in the February 1, 2008 issue of *Clinical Cancer Research*.

The effect of different schedules of reovirus and radiotherapy on viral replication and cytotoxicity was tested *in vitro* and the combination was assessed in three tumour models *in vivo*. The results demonstrated that combining reovirus and radiotherapy significantly increased cancer cell killing both *in vitro* and *in vivo*, particularly in cell lines with moderate susceptibility to reovirus alone.

As well, in the first quarter of 2008, we reported that Dr. Kevin Harrington and his research group at The Institute of Cancer Research, London, U.K. published the results of their work characterizing immune system responses to administration of intravenous REOLYSIN® in a Phase I clinical trial. The paper, entitled Characterization of the Adaptive and Innate Immune Response to Intravenous Oncolytic Reovirus (Dearing Type 3) during a Phase I Clinical Trial appeared online in the March 6, 2008 issue of *Gene Therapy*.

The investigators conducted a detailed analysis of the immune effects of intravenous viral therapy by collecting and analyzing immune response to the presence of the virus. The results suggest that reovirus may stimulate the immune system to mount a dynamic immune response to the presence of virus, increasing the potential to significantly enhance the efficacy of oncolytic virotherapy. About a third of those patients also showed increases in NK (natural killer) cells following therapy. The data support the development of interventions aimed at blunting the patient s immune response, although preclinical data also suggest that maintaining a baseline level is necessary to restrict systemic spread and toxicity of the virus.

Manufacturing and Process Development

In the first quarter of 2008, after completing the technology transfer of our 40-litre production process to our manufacturer in the U.S., we commenced production at the 40-litre scale under cGMP conditions for use in our clinical trials. Our process development activity continued to focus on scale up from 40-litre to 100-litre production runs.

Intellectual Property

During the first quarter of 2008, one U.S. and two Canadian patents were issued. At the end of the first quarter of 2008, we had been issued over 170 patents including 26 U.S. and eight Canadian patents as well as issuances in other jurisdictions. We also have over 180 patent applications filed in the U.S., Canada and other jurisdictions.

Financial Impact

We estimated at the beginning of 2008 that our average monthly cash usage would be approximately $1,660,000 for 2008. Our cash usage for the first quarter of 2008 was $2,991,234 from operating activities and $259,969 for the purchases of intellectual property and capital assets which is lower than our expected monthly average but is in line with our expectations for 2008. Our net loss for the first quarter of 2007 was $3,324,241.

Cash Resources

We exited the first quarter of 2008 with cash resources totaling $21,962,626 (see *Liquidity and Capital Resources*).

Expected REOLYSIN® Development for the Remainder of 2008

We plan to continue to enroll patients in our clinical trials throughout 2008 and still expect to complete enrollment in our co-therapy trials in the U.K. and our sarcoma study in the U.S. We believe that the results from these trials will allow us to broaden our Phase II clinical trial program and choose a pivotal trial path. As well, we believe that the NCI will commence enrollment in its two sponsored clinical trials.

We expect to produce REOLYSIN® for our clinical trial program throughout 2008. We believe we will complete our 100-litre scale up studies and will continue our examination of a lyophilization (freeze drying) process for REOLYSIN®.

We continue to estimate, based on our expected activity for 2008 that our average monthly cash usage will be $1,660,000 per month (see *Liquidity and Capital Resources*).

Recent 2008 Progress

Clinical Trials Positive Interim Results

In April, we announced positive interim results and completion of the dose escalation portion of our U.K. combination REOLYSIN® and carboplatin/paclitaxel trial. Four of the first eight patients treated in the study to date have a diagnosis of carcinoma of the head and neck. All three head and neck patients evaluated to date have had excellent clinical and radiological responses without appreciable toxicity. Preliminary assessment after recruitment of the first two cohorts has suggested that patients with head and neck carcinomas represent a group of patients for whom the combination of carboplatin/paclitaxel and REOLYSIN® may prove effective.

In the first cohort, the patient with head and neck cancer received 8 cycles of treatment (the maximum allowed) and achieved a clinical complete response. In the second cohort, the two patients with head and

neck cancers with widespread disseminated disease have each received seven cycles of treatment to date and both have achieved significant partial responses. Two of the three patients, including the patient with the clinical complete response, had previously received cisplatin/5-FU treatment and all three had previously received radiotherapy.

This clinical trial has two components. The first is an open-label, dose-escalating, non-randomized study of REOLYSIN® given intravenously with paclitaxel and carboplatin every three weeks. Standard dosages of paclitaxel and carboplatin were delivered to patients with escalating dosages of REOLYSIN® intravenously. The second component of the trial includes the enrolment of a further 12 patients at the maximum dosage of REOLYSIN® in combination with a standard dosage of paclitaxel and carboplatin.

Eligible patients include those who have been diagnosed with advanced or metastatic solid tumours such as head and neck, melanoma, lung and ovarian cancers that are refractory (have not responded) to standard therapy or for which no curative standard therapy exists. The primary objective of the trial is to determine the Maximum Tolerated Dose (MTD), Dose-Limiting Toxicity (DLT), recommended dose and dosing schedule and safety profile of REOLYSIN® when administered in combination with paclitaxel and carboplatin. Secondary objectives include the evaluation of immune response to the drug combination, the body s response to the drug combination compared to chemotherapy alone and any evidence of anti-tumour activity.

Collaborations Results

On April 15, 2008, we announced that a poster presentation by Dr. Anders Kolb of the Nemours Center for Childhood Cancer Research entitled Radiation in Combination with Reolysin for Pediatric Sarcomas was presented at the American Association for Cancer Research (AACR) Annual Meeting. The poster covers preclinical work using reovirus in combination with radiation in mice implanted with pediatric rhabdomyosarcoma and Ewing s sarcoma tumours. The results demonstrated that the combination of reovirus and radiation significantly enhanced efficacy compared to either treatment alone in terms of tumour regression and event-free survival.

On April 15, 2008, we announced that an oral presentation by Dr. Chandini Thirukkumaran of the Tom Baker Cancer Centre, Calgary, entitled Targeting Multiple Myeloma with Oncolytic Viral Therapy was presented at the AACR Annual Meeting. The presentation covered preclinical work using reovirus as a purging agent during autologous (harvested from the patient themselves) hematopoietic stem cell transplants for multiple myeloma. The results demonstrated that up to 70% of multiple myeloma cell lines tested showed reovirus sensitivity and reovirus induced cancer cell death mediated through apoptosis.

On April 16, 2008, we announced that Prof. Alan Melcher and his research group at St. James s University Hospital in Leeds, U.K. published the results of their work in the April 10 online issue of *Gene Therapy*. The paper is entitled Inflammatory Tumour Cell Killing by Oncolytic Reovirus for the Treatment of Melanoma. The investigators showed that reovirus effectively kills and replicates in both human melanoma cell lines and freshly resected tumour. They demonstrated that reovirus melanoma killing is more potent than, and distinct from, chemotherapy or radiotherapy-induced cell death. They concluded that reovirus is suitable for clinical testing in melanoma.

RESULTS OF OPERATIONS

Net loss for the three month period ending March 31, 2008 was $3,324,241 compared to $4,113,231 for the three month period ending March 31, 2007.

Research and Development Expenses (R&D)

	2008 $	**2007 $**
Manufacturing and related process development expenses	**503,094**	1,838,193
Clinical trial expenses	**1,042,791**	721,617
Pre-clinical trial expenses and collaborations		106,281
Other R&D expenses	**579,926**	552,146
Research and development expenses	**2,125,811**	3,218,237

For the first quarter of 2008, R&D decreased to $2,125,811 compared to $3,218,237 for the first quarter of 2007. The decrease in R&D was due to the following:

Manufacturing & Related Process Development (M&P)

	2008 $	**2007 $**
Product manufacturing expenses	**467,328**	1,748,417
Process development expenses	**35,766**	89,776
Manufacturing and related process development expenses	**503,094**	1,838,193

Our M&P expenses for the first quarter of 2008 decreased to $503,094 compared to $1,838,193 for the first quarter of 2007.

In the first quarter of 2008, our production activity decreased compared to the first quarter of 2007. During the first quarter of 2008, we entered into a contract to manufacture REOLYSIN® at the 40-litre scale. We commenced production under this contract towards the end of the first quarter of 2008. In the first quarter of 2007, along with a number of manufacturing runs at the 20-litre scale, we also incurred vial filling activity for the production runs that were completed at the end of 2006.

Our process development expenses for the first quarter of 2008 were $35,766 compared to $89,776 for the first quarter of 2007. In the first quarter of 2008, our process development focus continues to be on the scale up to 100-litre production runs. In the first quarter of 2007, our process development focus was on our earlier 40-litre scale up studies.

We still expect that our M&P expenses for 2008 will increase compared to 2007. We have initiated our 40-litre production runs which will continue throughout 2008. As well, we still expect to finalize our 100-litre scale up studies and continue the examination of a lyophilization process for REOLYSIN® in 2008. Once our 100-litre process development studies are complete, we expect to transfer our 100-litre manufacturing process to our cGMP manufacturers.

Clinical Trial Program

	2008 $	2007 $
Direct clinical trial expenses	**994,646**	683,107
Other clinical trial expenses	**48,145**	38,510
Clinical trial expenses	**1,042,791**	721,617

During the first quarter of 2008, our direct clinical trial expenses increased to $994,646 compared to $683,107 for the first quarter of 2007. In the first quarter of 2008, we incurred direct patient costs in our six enrolling clinical trials compared to only three actively enrolling clinical trials in the first quarter of 2007.

We still expect our clinical trial expenses to increase in 2008 compared to 2007. The increase in these expenses is expected to arise from continued enrollment and continued re-treatments in our existing clinical trials.

Pre-Clinical Trial Expenses and Research Collaborations

	2008 $	2007 $
Research collaboration expenses		106,281
Pre-clinical trial expenses		
Pre-clinical trial expenses and research collaborations		106,281

During the first quarter of 2008, our research collaboration activity focused on renewing specific collaborations, but no costs were incurred compared to $106,281 for the first quarter of 2007. Our research collaboration activity continues to focus on the interaction of the immune system and the reovirus and the use of the reovirus as a co-therapy with existing chemotherapeutics and radiation.

We still expect that our pre-clinical trial expenses and research collaborations in 2008 will remain consistent with 2007.

Other Research and Development Expenses

	2008 $	2007 $
R&D consulting fees	**27,408**	91,776
R&D salaries and benefits	**478,118**	372,389
Other R&D expenses	**74,400**	87,981
Other research and development expenses	**579,926**	552,146

During the first quarter of 2008, our R&D consulting fees were $27,408 compared to $91,776 for the first quarter of 2007. In the first quarter of 2007, we incurred consulting activity associated with our co-therapy clinical trial applications that was not incurred in the first quarter of 2008.

Our R&D salaries and benefits costs were $478,118 for the first quarter of 2008 compared to $372,389 for the first quarter of 2007. The increase is a result of increases in salary levels for 2008 compared to 2007.

We still expect that our Other R&D expenses will remain consistent with 2007.

Operating Expenses

	2008 **$**	**2007** **$**
Public company related expenses	**759,970**	581,876
Office expenses	**324,284**	324,839
Operating expenses	**1,084,254**	906,715

During the first quarter of 2008, our public company related expenses were $759,970 compared to $581,876 for the first quarter of 2007. In the first quarter of 2008, we incurred an increase in professional fees associated with the expansion of our corporate structure, an increase in our investor relations activity, and an increase in compensation costs paid to our board of directors compared to the first quarter of 2007.

During the first quarter of 2008, our office expenses were $324,284 compared to $324,839 for the first quarter of 2007. Our office expense activity has remained consistent in the first quarter of 2008 compared to the first quarter of 2007.

Commitments

As at March 31, 2008, we are committed to payments totaling $2,497,000 during the remainder of 2008 for activities related to clinical trial activity, manufacturing and collaborations. All of these committed payments are considered to be part of our normal course of business.

SUMMARY OF QUARTERLY RESULTS

The following unaudited quarterly information is presented in thousands of dollars except for per share amounts:

	2008	**2007**					**2006**	
	March	**Dec.**	**Sept.**	**June**	**March**	**Dec.**	**Sept.**	**June**
Revenue								
Interest income	180	265	319	359	268	286	320	335
Net loss[3]	3,324	4,085	3,764	3,680	4,113	4,890	3,425	2,988
Basic and diluted loss per common share[3]	$ 0.08	$ 0.13	$ 0.09	$ 0.09	$ 0.11	$ 0.13	$ 0.09	$ 0.08
Total assets[1], [4]	27,408	30,782	33,897	37,670	41,775	33,566	37,980	40,828
Total cash[2], [4]	21,963	25,214	28,191	31,533	35,681	27,614	31,495	34,501
Total long-term debt[5]						150	150	150
Cash dividends declared[6]	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

(1) Subsequent to the acquisition of Oncolytics Biotech Inc. by SYNSORB in April 1999, we applied push down accounting. See note 2 to the audited financial

statements for 2007.

(2) Included in total cash are cash and cash equivalents plus short-term investments.

(3) Included in net loss and loss per common share between March 2008 and April 2006 are quarterly stock based compensation expenses of $19,593, $396,278, $38,909, $82,573, $21,396, $109,670, $34,671, and $222,376, respectively.

(4) We issued 4,600,000 units for net cash proceeds of $12,063,394 during 2007 with each unit consisting of one common share and one half of one common share purchase warrant. (2006 284,000 common shares for cash proceeds of $241,400)

(5)

The long-term debt recorded represents repayable loans from the Alberta Heritage Foundation. On January 1, 2007, in conjunction with the adoption of the CICA Handbook section 3855 Financial Instruments , this loan was recorded at fair value (see note 3 of the December 31, 2007 audited financial statements).

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

LIQUIDITY AND CAPITAL RESOURCES

Liquidity

As at March 31, 2008, we had cash and cash equivalents (including short-term investments) and working capital positions of $21,962,626 and $19,457,103, respectively compared to $25,213,829 and $22,732,987, respectively for December 31, 2007. The decrease in the first quarter of 2008 reflects the cash usage from our operating activities and purchase of intellectual property of $2,991,234 and $257,304, respectively.

We desire to maintain adequate cash and short-term investment reserves to support our planned activities which include our clinical trial program, product manufacturing, administrative costs, and our intellectual property expansion and protection. In 2008, we expect to continue to enroll patients in our various clinical trials and we also expect to continue with our collaborative studies pursuing support for our clinical trial program. We will therefore need to ensure that we have enough REOLYSIN® to supply our clinical trial and collaborative programs. We still expect our average monthly cash usage to be $1,660,000 in 2008 and we believe our existing capital resources are adequate to fund our current plans for research and development activities well into 2009. Factors that will affect our anticipated monthly burn rate include, but are not limited to, the number of manufacturing runs required to supply our clinical trial program and the cost of each run, the number of clinical trials ultimately approved, the timing of patient enrollment in the approved clinical trials, the actual costs incurred to support each clinical trial, the number of treatments each patient will receive, the timing of the NCI s R&D activity, and the level of pre-clinical activity undertaken.

In the event that we choose to seek additional capital, we will look to fund additional capital requirements primarily through the issue of additional equity. We recognize the challenges and uncertainty inherent in the capital markets and the potential difficulties we might face in raising additional capital. Market prices and market demand for securities in biotechnology companies are volatile and there are no assurances that we will have the ability to raise funds when required.

Capital Expenditures

We spent $257,304 on intellectual property in the first quarter of 2008 compared to $218,177 in the first quarter of 2007. The change in intellectual property expenditures reflects the timing of filing costs associated with our expanded patent base. As well, we have benefited from fluctuations in the Canadian dollar as our patent costs are typically incurred in U.S. currency. At the end of the first quarter of 2008, we had been issued over 170 patents including 26 U.S. and eight Canadian patents as well as issuances in other jurisdictions. We also have over 180 patent applications filed in the U.S., Canada and other jurisdictions.

Investing Activities

Under our Investment Policy, we are permitted to invest in short-term instruments with a rating no less than R-1 (DBRS) with terms less than two years. We have $14,635,920 invested under this policy and we are currently earning interest at an effective rate of 2.74% (2007 4.08%).

CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

Capital Disclosures

On January 1, 2008, the Company adopted the new recommendations of the Canadian Institute of Chartered Accountants (CICA) for disclosure of the Company s objectives, policies and processes for managing capital (CICA Handbook Section 1535), as discussed further in Note 5 of our interim consolidated financial statements.

Financial Instruments Disclosures

On January 1, 2008, the Company adopted the new recommendations of the CICA for disclosures about financial instruments, including disclosures about fair value and the credit, liquidity and market risks associated with financial instruments (CICA Handbook Section 3862), as discussed further in Notes 6 and 7 of our interim consolidated financial statements.

Financial Instruments Presentation

On January 1, 2008, the Company adopted the new recommendations of the CICA for presentation of financial instruments (CICA Handbook Section 3863). Adoption of this standard had no impact on the Company s financial instrument related presentation disclosures.

OTHER MD&A REQUIREMENTS

We have 41,180,748 common shares outstanding at April 30, 2008. If all of our warrants (4,220,000) and options (3,870,493) were exercised we would have 49,271,241 common shares outstanding.

Additional information relating to Oncolytics Biotech Inc. is available on SEDAR at www.sedar.com.

Controls and Procedures

There were no changes in our internal controls over financial reporting during the quarter ended March 31, 2008 that materially affected or are reasonably likely to materially affect, internal controls over financial reporting.

Oncolytics Biotech Inc.
CONSOLIDATED BALANCE SHEETS
(unaudited)

As at,

	March 31, 2008 $	**December 31, 2007 $**
ASSETS		
Current		
Cash and cash equivalents	**7,326,706**	6,715,096
Short-term investments *[note 7]*	**14,635,920**	18,498,733
Accounts receivable	**85,099**	80,085
Prepaid expenses	**161,478**	260,300
	22,209,203	25,554,214
Property and equipment	**192,582**	201,103
Intellectual property	**5,006,297**	5,026,540
	27,408,082	30,781,857
LIABILITIES AND SHAREHOLDERS EQUITY		
Current		
Accounts payable and accrued liabilities	**2,752,100**	2,821,227
Shareholders equity		
Share capital		
Authorized: unlimited number of common shares		
Issued: 41,180,748 (December 31, 2007 41,180,748)	**92,759,665**	92,759,665
Warrants	**5,346,260**	5,346,260
Contributed surplus *[note 3]*	**10,396,555**	10,376,962
Deficit *[note 4]*	**(83,846,498)**	(80,522,257)
	24,655,982	27,960,630
	27,408,082	30,781,857

See accompanying notes

Oncolytics Biotech Inc.
CONSOLIDATED STATEMENTS OF LOSS AND COMPREHENSIVE LOSS
(unaudited)

	Three Month Period Ending March 31, 2008 $	Three Month Period Ending March 31, 2007 $	Cumulative from inception on April 2, 1998 to March 31, 2008 $
Revenue			
Rights revenue			310,000
Expenses			
Research and development	**2,125,811**	3,218,237	56,662,093
Operating	**1,084,254**	906,715	21,842,523
Stock-based compensation	**19,593**	21,396	4,724,398
Foreign exchange loss (gain)	**9,262**	(5,233)	666,972
Amortization intellectual property	**254,469**	230,992	5,253,730
Amortization property and equipment	**11,186**	9,856	459,583
	3,504,575	4,381,963	89,609,299
Loss before the following:	**3,504,575**	4,381,963	89,299,299
Interest income	**(180,334)**	(268,732)	(6,195,083)
Gain on sale of BCY LifeSciences Inc.			(299,403)
Loss on sale of Transition Therapeutics Inc.			2,156,685
Loss before taxes	**3,324,241**	4,113,231	84,961,498
Future income tax recovery			(1,115,000)
Net loss and comprehensive loss for the period	**3,324,241**	4,113,231	83,846,498
Basic and diluted loss per share	**(0.08)**	(0.11)	

Weighted average number of shares (basic and diluted)	**41,180,748**	38,231,859

See accompanying notes

Oncolytics Biotech Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

	Three Month Period Ending March 31, 2008 $	Three Month Period Ending March 31, 2007 $	Cumulative from inception on April 2, 1998 to March 31, 2008 $
OPERATING ACTIVITIES			
Net loss for the period	**(3,324,241)**	(4,113,231)	(83,846,498)
Deduct non-cash items			
Amortization intellectual property	**254,469**	230,992	5,253,730
Amortization property and equipment	**11,186**	9,856	459,583
Stock-based compensation	**19,593**	21,396	4,724,398
Other non-cash items *[note 5]*			1,383,537
Net change in non-cash working capital *[note 5]*	**47,759**	103,278	2,482,980
Cash used in operating activities	**(2,991,234)**	(3,747,709)	(69,542,270)
INVESTING ACTIVITIES			
Intellectual property	**(257,304)**	(218,177)	(6,609,082)
Property and equipment	**(2,665)**	(34,748)	(718,234)
Purchase of short-term investments	**(137,187)**	(233,770)	(49,206,150)
Redemption of short-term investments	**4,000,000**		34,151,746
Investment in BCY LifeSciences Inc.			464,602
Investment in Transition Therapeutics Inc.			2,532,343
Cash provided by (used) in investing activities	**3,602,844**	(486,695)	(19,384,775)
FINANCING ACTIVITIES			
Proceeds from exercise of warrants and stock options			15,259,468
Proceeds from private placements			38,137,385
Proceeds from public offerings		12,068,172	42,856,898
Cash provided by financing activities		12,068,172	96,253,751
Net increase in cash and cash equivalents during the period	**611,610**	7,833,768	7,326,706
Cash and cash equivalents, beginning of the period	**6,715,096**	3,491,511	

Cash and cash equivalents, end of the period	**7,326,706**	11,325,279	7,326,706

See accompanying notes

Oncolytics Biotech Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

March 31, 2008 (unaudited)

1. INCORPORATION AND NATURE OF OPERATIONS

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

The Company is 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. The product being developed by the Company may represent a novel treatment for Ras mediated cancers which can be used as an alternative to existing cytotoxic or cytostatic therapies, as an adjuvant therapy to conventional chemotherapy, radiation therapy, or surgical resections, or to treat certain cellular proliferative disorders for which no current therapy exists.

2. ACCOUNTING POLICIES

These unaudited interim consolidated financial statements have been prepared in accordance with Canadian generally accepted accounting principles. The notes presented in these unaudited interim consolidated financial statements include only significant events and transactions occurring since the Company s last fiscal year end and are not fully inclusive of all matters required to be disclosed in the Company s annual audited financial statements. Accordingly, these unaudited interim consolidated financial statements should be read in conjunction with the Company s most recent annual audited financial statements. The information as at and for the year ended December 31, 2007 has been derived from the Company s annual audited financial statements.

The accounting policies used in the preparation of these unaudited interim consolidated financial statements conform to those used in the Company s most recent annual financial statements except for the following:

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its subsidiary, Oncolytics Biotech (Barbados) Inc. All intercompany transactions and balances have been eliminated.

Adoption of New Accounting Policies

Capital Disclosures

On January 1, 2008, the Company adopted the new recommendations of the Canadian Institute of Chartered Accountants (CICA) for disclosure of the Company s objectives, policies and processes for managing capital (CICA Handbook Section 1535), as discussed further in Note 6.

Financial Instruments Disclosures

On January 1, 2008, the Company adopted the new recommendations of the CICA for disclosures about financial instruments, including disclosures about fair value and the credit, liquidity and market risks associated with financial instruments (CICA Handbook Section 3862), as discussed further in Notes 7 and 8.

Oncolytics Biotech Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

March 31, 2008 (unaudited)

Financial Instruments Presentation

On January 1, 2008, the Company adopted the new recommendations of the CICA for presentation of financial instruments (CICA Handbook Section 3863). Adoption of this standard had no impact on the Company s financial instrument related presentation disclosures.

3. CONTRIBUTED SURPLUS

	Amount $
Balance, December 31, 2006	8,529,326
Stock-based compensation	539,156
Expired warrants	1,308,480
Balance, December 31, 2007	10,376,962
Stock-based compensation	19,593
Balance, March 31, 2008	**10,396,555**

4. DEFICIT

	Amount $
Balance, December 31, 2006	65,030,066
Adjustment Alberta Heritage Foundation loan	(150,000)
Net loss for the year	15,642,191
Balance, December 31, 2007	80,522,257
Net loss, March 31, 2008	3,324,241
Balance, March 31, 2008	**83,846,498**

1. On January 1, 2007, the Company adopted, without restatement, CICA Handbook Section 3855 *Financial Instruments Recognition and Measurement* and Section 1530 *Other Comprehensive Income* . Pursuant to the transitional provisions of Section 3855, the Company classified its short-term investments as held-to-maturity fixed income securities and recorded its Alberta Heritage Foundation interest free loan at fair value. As a result, there were no adjustments made to short-term investments or other comprehensive income and there was a decrease in the Alberta Heritage Foundation loan of $150,000 with a corresponding decrease of $150,000 in the Company s deficit.

Oncolytics Biotech Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

March 31, 2008 (unaudited)

5. ADDITIONAL CASH FLOW DISCLOSURE

Net Change in Non-Cash Working Capital

	Three Month Period Ended March 31, 2008 $	Three Month Period Ended March 31, 2007 $	Cumulative from inception on April 2, 1998 to March 31, 2008 $
Changes in:			
Accounts receivable	**(5,014)**	33,055	(85,099)
Prepaid expenses	**98,822**	(143,417)	(161,478)
Accounts payable and accrued liabilities	**(69,127)**	232,940	2,752,100
Net change in non-cash working capital	**24,681**	122,578	2,505,523
Portion related to investing activities	**23,078**	(19,300)	(22,543)
Net change associated with operating activities	**47,759**	103,278	2,482,980

Other Non-Cash Items

	Three Month Period Ended March 31, 2008 $	Three Month Period Ended March 31, 2007 $	Cumulative from inception on April 2, 1998 to March 31, 2008 $
Foreign exchange loss			425,186
Donation of medical equipment			66,069
Loss on sale of Transition Therapeutics Inc.			2,156,685
Gain on sale of BCY LifeSciences Inc.			(299,403)
Cancellation of contingent payment obligation settled in common shares			150,000
Future income tax recovery			(1,115,000)
			1,383,537

6. CAPITAL DISCLOSURES

The Company s objective when managing capital is to maintain adequate cash resources to support planned activities which include the clinical trial program, product manufacturing, administrative costs and intellectual property

expansion and protection. The Company includes shareholders equity, cash and short-term investments in the definition of capital. The Company does not have any debt other than trade accounts payable and has potential contingent obligations relating to the completion of its research and development of REOLYSIN®.

In managing capital, the Company estimates its future cash requirements by preparing a budget and a multiyear plan annually for review and approval by the Company s board of directors (the Board). The budget establishes the approved activities for the upcoming year and estimates the costs associated with

Oncolytics Biotech Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
March 31, 2008 (unaudited)

these activities. The multiyear plan estimates future activity along with the potential cash requirements and is based on the Company s assessment of its current clinical trial progress along with the expected results from the coming year s activity. Budget to actual variances are prepared monthly and reviewed by the Company s management and are presented quarterly to the Board.

Historically, funding for the Company s 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 the Company s progress through its clinical trial program, general market conditions, and the availability of capital. There are no assurances that funds will be made available to the Company when required.

The Company is not subject to externally imposed capital requirements.

7. SHORT-TERM INVESTMENTS

Short-term investments, consisting of bankers acceptances, are liquid investments that are readily convertible to known amounts of cash and are subject to an insignificant risk of changes in value. The objectives for holding short-term investments are to invest the Company s excess cash resources in investment vehicles that provide a better rate of return compared to the Company s interest bearing bank account with limited risk to the principal invested. The Company also intends to match the maturities of these short-term investments with the cash requirements of the Company s activities. The Company does not hold any asset backed commercial paper.

	Original Cost $	Accrued Interest $	Carrying Value $	Fair Value $	Effective Interest Rate
March 31, 2008					
Short-term investments	**14,576,744**	**59,176**	**14,635,920**	**14,539,205**	**2.74%**
December 31, 2007					
Short-term investments	**18,230,340**	**268,393**	**18,498,733**	**18,499,173**	**4.26%**

Fair value is determined by using published market prices provided by the Company s investment advisor.

8. FINANCIAL INSTRUMENTS

Financial instruments of the Company consist of cash and cash equivalents, short-term investments, accounts receivable, and accounts payable. As at March 31, 2008, there are no significant differences between the carrying values of these amounts and their estimated market values.

Credit risk

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

Oncolytics Biotech Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

March 31, 2008 (unaudited)

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

The Company also mitigates its exposure to credit risk by restricting its portfolio to investment grade securities with short term maturities and by monitoring the credit risk and credit standing of counterparties.

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. The Company is exposed to interest rate risk through its cash and cash equivalents and its portfolio of short-term investments. The Company mitigates this risk through its investment policy that only allows investment of its excess cash resources in investment grade vehicles while matching maturities with the Company s operational requirements.

Fluctuations in market rates of interest do not have a significant impact on the Company s 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. The Company is exposed to currency risk from the purchase of goods and services primarily in the U.S. and the U.K. The Company mitigates its foreign exchange risk through the purchase of foreign currencies in sufficient amounts to settle its foreign accounts payable.

Balances in foreign currencies at March 31, 2008 are as follows:

	U.S. dollars $	**British pounds £**
Cash and cash equivalents	441,078	181,214
Accounts payable	(440,988)	(35,985)
	90	145,229

Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities. The Company manages liquidity risk through the management of its capital structure as outlined in note 6 to the unaudited financial statements.

Accounts payable are all due within the current operating period.

Shareholder Information
For public company filings please go to www.sedar.com or contact us at:
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Chairman, President and CEO
Doug Ball, CA
Chief Financial Officer
Matt Coffey, PhD
Chief Scientific Officer
Karl Mettinger, MD, PhD
Chief Medical Officer
George Gill, MD
Senior Vice President, Clinical and Regulatory Affairs
Mary Ann Dillahunty, JD, MBA
Vice President, Intellectual Property

Directors

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Chairman, President and CEO, Oncolytics Biotech Inc.
Doug Ball, CA
CFO, Oncolytics Biotech Inc.
Ger van Amersfoort
Biotech Consultant
William A. Cochrane, OC, MD
Biotech Consultant
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Ed Levy, PhD
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