ONCOLYTICS BIOTECH INC
Form F-10
April 25, 2018

As filed with the Securities and Exchange Commission on April 25, 2018

Registration Statement No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM F-10

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ONCOLYTICS BIOTECH INC.

(Exact name of Registrant as specified in its charter)

Alberta	**2834**	**Not Applicable**
(Province or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

Suite #210, 1167 Kensington Crescent N.W.

Calgary, Alberta

Canada T2N 1X7

(403) 670-7377

(Address and Telephone number of Registrant's Principal Executive Offices)

DL Services Inc.

Columbia Center, 701 Fifth Avenue, Suite 1600

Seattle, Washington 98104

(206) 903-5448

(Name, Address (including zip code) and Telephone Number (including Area Code) of Agent for Service in the United States)

Copies to:

	Kirk Look
	Suite #210, 1167 Kensington Crescent N.W.
Kenneth G. Sam, Esq.	
	Calgary, Alberta
Jason K. Brenkert, Esq.	
Dorsey & Whitney LLP	*Canada T2N 1X7*
1400 Wewatta Street, Suite 400	
Denver, CO 80202-5549	*(403) 670-7377*

Approximate date of proposed sale to the public:

From time to time after the effective date of this registration statement.

Province of Alberta, Canada

(Principal jurisdiction regulating this offering)

It is proposed that this filing shall become effective (check appropriate box):

A. .. Upon filing with the Commission, pursuant to Rule 467(a) (if in connection with an offering being made contemporaneously in the United States and Canada).

B. x At some future date (check the appropriate box below):

1. ¨ pursuant to Rule 467(b) on __(date) at___(time) (designate a time not sooner than 7 calendar days after filing).

2. ¨ pursuant to Rule 467(b) on __(date) at ___(time) (designate a time 7 calendar days or sooner after filing) because the securities regulatory authority in the review jurisdiction has issued a receipt or notification of clearance on ___(date).

3. ¨ pursuant to Rule 467(b) as soon as practicable after notification of the Commission by the Registrant or the Canadian securities regulatory authority of the review jurisdiction that a receipt or notification of clearance has been issued with respect hereto.

4. x after the filing of the next amendment to this Form (if preliminary material is being filed).

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to the home jurisdiction's shelf prospectus offering procedures, check the following box. x

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	**Proposed maximum aggregate offering price (1) (2)**	**Amount of registration fee**
Common Shares, Subscription Receipts, Warrants, and Units[3]	U.S.$116,886,153	U.S.$14,552.33
TOTAL	U.S.$116,886,153	U.S.$14,552.33[4]

(1) Rule 457(o) permits the registration fee to be calculated on the basis of the maximum offering price of all of the securities listed and, therefore, the table does not specify by each class information as to the amount to be registered or the proposed maximum offer price per security. The proposed maximum initial offering price per security will be determined, from time to time, by the Registrant. In no event will the aggregate initial offering price of all securities issued from time to time pursuant to this Registration Statement exceed U.S.$116,886,153.

(2) Determined based on the proposed maximum aggregate offering price in Canadian dollars of Cdn$150,000,000 converted into U.S. dollars based on the average rate of exchange on April 23, 2018, as reported by the Bank of Canada, for the conversion of Canadian dollars into U.S. dollars of Cdn$1.00 equals U.S.$0.7792.

(3) Subject to footnote (1), there are being registered hereunder an indeterminate number of Common Shares, Warrants to Purchase Common Shares or Subscription Receipts, Subscription Receipts which entitle the holder to receive upon satisfaction of certain release conditions, for no additional consideration, Common Shares, Warrants or any combination thereof, or Units consisting of two or more of the foregoing or any combination thereof, as may be sold from time to time by the Registrant. There are also being registered hereunder an indeterminate number of Common Shares as may be issuable upon exercise of Warrants to Purchase Common Shares or as part of Subscription Receipts or Units and such indeterminate number of Common Shares as may be issuable pursuant to anti-dilution or other similar adjustment provisions in the Warrants or Subscription Receipts.

(4) The Registrant previously paid a registration fee of $17,987 in connection with its registration of $139,650,000 in maximum aggregate offering price of securities on its registration statement on Form F-10 (File No. 333-197633) initially filed on July 25, 2014 and declared effective on August 4, 2014 ("Prior Registration Statement") of which the Registrant offered and sold securities in the amount of $48,300,000, leaving $91,350,000 in maximum aggregate offering amount of securities and a remaining registration fee of $11,765. Pursuant to Rule 457(p) under the Securities Act, the Registrant is offsetting the $14,552.33 filing fee in connection with this Registration Statement with the available $11,765 remaining from Prior Registration Statement, leaving $2,787.33 to be paid in connection with this filing, which is being paid concurrently with this filing.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registration statement shall become effective as provided in Rule 467 under the Securities Act, or on such date as the Commission, acting pursuant to Section 8(a) of the Securities Act, may determine.

PART I

INFORMATION REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

Information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the United States Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This prospectus shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

SUBJECT TO COMPLETION, DATED APRIL 25, 2018

Prospectus Dated , 2018

Cdn.$150,000,000

Common Shares
Subscription Receipts
Warrants
Units

_____

Oncolytics Biotech Inc. (the "**Corporation**", "**Oncolytics**", "**we**", "**our**" or "**us**") may from time to time offer and issue the following securities: (i) common shares in the capital of the Corporation ("**Common Shares**"); (ii) subscription receipts of the Corporation exchangeable for Common Shares and/or other securities of the Corporation ("**Subscription Receipts**"); (iii) warrants exercisable to acquire Common Shares and/or other securities of the Corporation ("**Warrants**"); and (iv) securities comprised of more than one of Common Shares, Subscription Receipts and/or Warrants offered together as a unit ("**Units**"), or any combination thereof, up to an aggregate offering price of $150,000,000 (or the equivalent thereof, at the date of issue, in any other currency or currencies, as the case may be) at any time during the 25-month period that this short form base shelf prospectus (including any amendments hereto, the "**Prospectus**") remains valid. The Common Shares, Subscription Receipts, Warrants and Units (collectively, the "**Securities**") offered hereby may be offered separately or together, in separate series, in amounts, at prices and on terms

to be set forth in one or more prospectus supplements (collectively or individually, as the case may be, "**Prospectus Supplements**").

The specific terms of any offering of Securities will be set forth in the applicable Prospectus Supplement and may include, without limitation, where applicable: (i) in the case of Common Shares, the number of Common Shares being offered, the offering price (in the event the offering is a fixed price distribution), the manner of determining the offering price(s) (in the event the offering is not a fixed price distribution) and any other specific terms; (ii) in the case of Subscription Receipts, the number of Subscription Receipts being offered, the offering price, the terms, conditions and procedures for the exchange of the Subscription Receipts into or for Common Shares and/or other securities of the Corporation and any other specific terms; (iii) in the case of Warrants, the number of such Warrants offered, the offering price, the terms, conditions and procedures for the exercise of such Warrants into or for Common Shares and/or other securities of the Corporation and any other specific terms; and (iv) in the case of Units, the number of Units being offered, the offering price, the terms of the Common Shares, Subscription Receipts and/or Warrants, as the case may be, underlying the Units, and any other specific terms.

This offering is made by a Canadian issuer that is permitted, under a multijurisdictional disclosure system adopted by the United States and Canada ("MJDS"), to prepare this Prospectus in accordance with Canadian disclosure requirements. Prospective investors in the United States should be aware that such requirements are different from those of the United States. Financial statements included or incorporated by reference herein have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and may not be comparable to financial statements of United States companies. Such financial statements are subject to Canadian generally accepted auditing standards and auditor independence standards, in addition to the standards of the Public Company Accounting Oversight Board (United States) and the United States Securities and Exchange Commission ("SEC") independence standards.

Prospective investors should be aware that the acquisition of the securities described herein may have tax consequences both in the United States and in Canada. Such consequences for investors who are resident in, or citizens of, the United States may not be described fully herein. Prospective investors should read the tax discussion contained in the applicable Prospectus Supplement with respect to a particular offering of Securities.

The enforcement by investors of civil liabilities under the United States federal securities laws may be affected adversely by the fact that the Company is incorporated under the laws of Alberta, Canada, that the majority of its officers and directors are residents of Canada, that many of the experts named in the registration statement are not residents of the United States, and that a substantial portion of the assets of the Company and said persons are located outside the United States.

NEITHER THE SEC NOR ANY STATE OR CANADIAN SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THE SECURITIES OFFERED HEREBY OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENCE.

Any investment in Securities involves significant risks that should be carefully considered by prospective investors before purchasing Securities. The risks outlined in this Prospectus and in the documents incorporated by reference herein, including the applicable Prospectus Supplement, should be carefully reviewed and considered by prospective investors in connection with any investment in Securities. See "*Risk Factors*".

All shelf information permitted under applicable securities legislation to be omitted from this Prospectus including, without limitation, the information disclosed in the specific terms of any offering of Securities, as discussed above, will be contained in one or more Prospectus Supplements that will be delivered to purchasers together with this Prospectus, except in cases where an exemption from such delivery requirements has been obtained. Each Prospectus Supplement will be incorporated by reference into this Prospectus for the purposes of securities legislation as of the date of such Prospectus Supplement and only for the purposes of the distribution of the Securities to which that Prospectus Supplement pertains.

We may sell the Securities to or through one or more underwriters or dealers purchasing as principals and may also sell the Securities to one or more purchasers directly, through applicable statutory exemptions, or through one or more agents designated by us from time to time. The Securities may be sold from time to time in one or more transactions at fixed prices or not at fixed prices, such as market prices prevailing at the time of sale, prices related to such prevailing market prices or prices to be negotiated with purchasers, which prices may vary as between purchasers and during the period of distribution of the Securities. The Prospectus Supplement relating to a particular offering of Securities will identify each underwriter, dealer or agent engaged in connection with the offering and sale of such Securities, as well as the method of distribution and the terms of the offering of such Securities, including the initial offering price (in the event the offering is a fixed price distribution), the manner of determining the offering price(s) (in the event the offering is not a fixed price distribution), the net proceeds to us and, to the extent applicable, any fees, discounts or any other compensation payable to underwriters, dealers or agents and any other material terms. See "*Plan of Distribution*".

In connection with any offering of the Securities other than an "at-the-market distribution" (as defined under applicable Canadian legislation) (unless otherwise specified in the relevant Prospectus Supplement), the underwriters or agents may over-allot or effect transactions that stabilize or maintain the market price of the offered Securities at a level above that which might otherwise prevail on the open market. Such transactions, if commenced, may be interrupted or discontinued at any time. See "*Plan of Distribution*".

No underwriter or dealer involved in an "at-the-market distribution" under this Prospectus, no affiliate of such an underwriter or dealer and no person or company acting jointly or in concert with such underwriter or dealer will over-allot securities in connection with such distribution or effect any other transactions that are intended to stabilize or maintain the market price of the Securities.

Owning the Securities may subject you to tax consequences. This Prospectus and any applicable Prospectus Supplement may not describe the tax consequences fully. You should read the tax discussion in any applicable Prospectus Supplement and consult with your own tax advisor with respect to your own particular circumstances.

Unless otherwise specified in the applicable Prospectus Supplement, the Subscription Receipts, Warrants and Units will not be listed on any securities exchange. There is no market through which these securities may be sold and purchasers may not be able to resell such securities purchased under this Prospectus. This may affect the pricing of such securities in the secondary market, the transparency and availability of trading prices, the liquidity of such securities, and the extent of issuer regulation. See "*Forward-Looking Statements*" and "*Risk Factors*".

Our outstanding securities are listed for trading on the Toronto Stock Exchange ("**TSX**") under the trading symbol "**ONC**" and are quoted for trading on the OTCQX Best Market ("**OTCQX**") under the trading symbol "**ONCYF**". On April 24, 2018, the closing price of our Common Shares on the TSX was $0.66 per Common Share.

Messrs. Wayne Pisano, William G. Rice and Bernd R. Seizinger are directors of the Corporation who reside outside of Canada. Messrs. Pisano, Rice and Seizinger have appointed the Corporation, at its principal place of business, as agent for service of process. Purchasers are advised that it may not be possible for investors to enforce judgments obtained in Canada against any person that resides outside of Canada, even if the party has appointed an agent for service of process.

No underwriter, agent or dealer has been involved in the preparation of this Prospectus or performed any review of the contents of this Prospectus.

Our head office and principal place of business is located at 210, 1167 Kensington Crescent N.W., Calgary, Alberta, T2N 1X7. Our registered office is located at 4000, 421 - 7th Avenue S.W., Calgary, Alberta, T2P 4K9.

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ABOUT THIS PROSPECTUS AND OTHER MATTERS

In this Prospectus and any Prospectus Supplement, unless otherwise indicated, references to "**we**", "**us**", "**our**", "**issuer**" "**Oncolytics**" or the "**Corporation**" are to Oncolytics Biotech Inc., including, where the context requires, its subsidiaries and affiliates.

In this Prospectus and in any Prospectus Supplement, unless otherwise specified or the context otherwise requires, all references to "**dollars**" or "**$**" are to Canadian dollars and all references to "**US$**" are to United States dollars.

Unless otherwise indicated, all financial information included and incorporated by reference in this Prospectus and any Prospectus Supplement is determined using International Financial Reporting Standards as issued by the International Accounting Standards Board and adopted by the Accounting Standards Board of Canada ("**IFRS**").

This Prospectus provides you with a general description of the Securities that the Corporation may offer. Each time the Corporation sells Securities under this Prospectus, the Corporation will file and deliver, except in cases where an exemption from such delivery requirement has been obtained, a Prospectus Supplement that will contain specific information about the terms of that offering of Securities. The Prospectus Supplement also may add, update or change information contained in this Prospectus. Before investing, investors should read both this Prospectus and any applicable Prospectus Supplement together with additional information described under the heading "*Documents Incorporated by Reference*".

You should rely only on the information contained in or incorporated by reference in this Prospectus or any applicable Prospectus Supplement. The Corporation has not authorized anyone to provide you with different or additional information. The Corporation is not making an offer of these Securities in any jurisdiction where the offer is not permitted by law.

FORWARD-LOOKING STATEMENTS

This Prospectus and the documents incorporated by reference herein contain certain statements relating to future events or the Corporation's future performance which constitute forward-looking statements within the meaning of applicable Canadian securities laws and within the meaning of the United States Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Corporation, or industry results, to be

materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Forward-looking statements are statements that are not historical facts, and include, but are not limited to, estimates and their underlying assumptions; statements regarding plans, objectives and expectations with respect to the efficacy of our technologies; the timing and results of clinical studies related to our technologies; future operations, products and services; the impact of regulatory initiatives on our operations; the size of and opportunities related to the markets for our technologies; general industry and macroeconomic growth rates; expectations related to possible joint and/or strategic ventures and statements regarding future performance. Forward-looking statements generally, but not always, are identified by the words “expects,” “anticipates,” “believes,” “intends,” “estimates,” “projects”, “potential”, “possible” and similar expressions, or that events or conditions “will,” “may,” “
“should” occur.

The forward-looking statements in this Prospectus are subject to various risks and uncertainties, most of which are difficult to predict and generally beyond our control, including without limitation:

- risks related to all of our products, including REOLYSIN®, being in the research and development stage and requiring further development and testing before they can be marketed commercially;
- risks inherent in pharmaceutical research and development;
- risks related to timing and possible delays in our clinical trials;
- risks related to some of our clinical trials being conducted in, and subject to the laws of foreign countries;
- risks related to our pharmaceutical products being subject to intense regulatory approval processes in the United States and other foreign jurisdictions;
- risks related to being subject to government manufacturing and testing regulations;

- risks related to the extremely competitive biotechnology industry and our competition with larger companies with greater resources;
- risks related to our reliance on patents and proprietary rights to protect our technology;
- risks related to potential product liability claims;
- risks related to our limited manufacturing experience and reliance on third parties to commercially manufacture our products, if and when developed;
- risks related to our new products not being accepted by the medical community or consumers;
- risks related to our technologies becoming obsolete;
- risks related to our dependence on third party relationships for research and clinical trials;
- risks related to our license, development, supply and distribution agreement with Adlai Nortye Biopharma Co. Ltd.;
- risks related to our lack of operating revenues and history of losses;
- uncertainty regarding our ability to obtain third-party reimbursement for the costs of our product;
- risks related to other third-party arrangements;
- risks related to our ability to obtain additional financing to fund future research and development of our products and to meet ongoing capital requirements;
- risks related to potential increases in the cost of director and officer liability insurance;
- risks related to our dependence on key employees and collaborators;
- risks related to Barbados law, including those relating to the enforcement of judgments obtained in Canada or the United States;

- risks related to the effect of changes in the law on our corporate structure;
- risks related to expenses in foreign currencies and our exposure to foreign currency exchange rate fluctuations;
- risks related to fluctuations in interest rates;
- risks related to information technology systems; and
- risks related to our Common Shares.

This list is not exhaustive of the factors that may affect any of the Corporation's forward-looking statements. Some of the important risks and uncertainties that could affect forward-looking statements are described further under the heading "*Risk Factors*" in our Annual Report. If one or more of these risks or uncertainties materializes, or if underlying assumptions prove incorrect, our actual results may vary materially from those expected, estimated or projected. Forward-looking statements in this document are not a prediction of future events or circumstances, and those future events or circumstances may not occur. Given these uncertainties, users of the information included herein, including investors and prospective investors, are cautioned not to place undue reliance on such forward-looking statements. 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 forward-looking statements. The Corporation does not undertake any obligation to publicly update or revise any forward-looking statements other than as required under applicable securities laws.

Prospective investors should carefully consider the information contained under the heading "*Risk Factors*" in our Annual Report and all other information included in or incorporated by reference in this Prospectus before making investment decisions with regard to the Securities.

RISK FACTORS

An investment in the Securities involves a high degree of risk. Prospective investors should note that there is no market through which the Subscription Receipts, Warrants or Units may be sold and purchasers may not be able to resell the Subscription Receipts, Warrants or Units purchased under this Prospectus. This may affect the pricing of these securities in the secondary market, the transparency and availability of trading prices, the liquidity of the securities, and the extent of issuer regulation.

Prospective investors should consider carefully the risks described in the documents incorporated by reference in this Prospectus (including in subsequently filed documents incorporated by reference) and those described in any Prospectus Supplement before purchasing the Securities offered hereby. Discussions of certain risks affecting the Corporation in connection with its business are provided under the heading "*Risk Factors*" in our Annual Report filed with the various securities regulatory authorities, which is incorporated by reference in this Prospectus.

DOCUMENTS INCORPORATED BY REFERENCE

Information has been incorporated by reference in this Prospectus from documents filed with securities commissions or similar authorities in Canada. Copies of the documents incorporated herein by reference may be obtained on request without charge from our Corporate Secretary at 210, 1167 Kensington Crescent N.W., Calgary, Alberta, T2N 1X7 telephone (403) 670-7377, and are available electronically at www.sedar.com and on EDGAR (accessed at www.sec.gov).

We have filed the following documents with the securities commissions or similar regulatory authorities in certain of the provinces of Canada and such documents are specifically incorporated by reference in, and form an integral part of, this Prospectus:

(a) our annual report on Form 20-F ("**Annual Report**") dated March 19, 2018, for the year ended December 31, 2017 (filed in Canada with the Canadian securities regulatory authorities in lieu of an annual information form);

(b) our management information circular dated March 27, 2018 relating to the annual general meeting of shareholders to be held on May 3, 2018;

(c)

our audited consolidated financial statements, together with the notes thereto, as at December 31, 2017 and 2016, which comprise the consolidated statements of financial position as at December 31, 2017 and 2016, and the consolidated statements of loss and comprehensive loss, changes in equity, and cash flows for the years ended December 31, 2017 and 2016, together with the independent auditors' report thereon; and

(d) our management's discussion and analysis of financial condition and results of operations dated March 8, 2018, for the year ended December 31, 2017.

Any documents of the type required by National Instrument 44-101 - *Short Form Prospectus Distributions* to be incorporated by reference in a short form prospectus, including any annual information form, annual report on Form 20-F, comparative annual consolidated financial statements and the auditors' report thereon, comparative interim consolidated financial statements, management's discussion and analysis of financial condition and results of operations, material change report (except a confidential material change report), business acquisition report and information circular, if filed by us with the securities commissions or similar authorities in Canada after the date of this Prospectus and prior to the date which is 25 months from the date of this Prospectus, shall be deemed to be incorporated by reference in this Prospectus.

In addition, to the extent that any document or information incorporated by reference into this Prospectus is included in any report filed with or furnished to the SEC pursuant to the United States Securities Exchange Act of 1934, as amended (the "**U.S. Exchange Act**"), after the date of this Prospectus, such document or information shall be deemed to be incorporated by reference as an exhibit to the registration statement of which this Prospectus forms a part (in the case of documents or information deemed furnished on Form 6-K or Form 8-K, only to the extent specifically stated therein)

Any statement contained in this Prospectus or in a document incorporated or deemed to be incorporated by reference herein will be deemed to be modified or superseded for the purposes of this Prospectus to the extent that a statement contained in this Prospectus or in any other subsequently filed document which also is, or is deemed to be, incorporated by reference into this Prospectus modifies or supersedes that statement. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document that it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purposes that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute part of this Prospectus.

Upon a new annual information form and the related audited annual financial statements and management's discussion and analysis being filed by us with the applicable securities regulatory authorities during the term of this Prospectus, the previous annual information form, the previous audited annual financial statements and related management's discussion and analysis, all unaudited interim financial statements and related management's discussion and analysis, material change reports and business acquisition reports filed prior to the commencement of our financial year in which the new annual information form and the related audited annual financial statements and management's discussion and analysis are filed shall be deemed no longer to be incorporated into this Prospectus for purposes of future offers and sales of Securities hereunder. Upon new interim financial statements and related management's discussion and analysis being filed by us with the applicable securities regulatory authorities during the term of this Prospectus, all interim financial statements and related management's discussion and analysis filed prior to the new interim consolidated financial statements and related management's discussion and analysis shall be deemed no longer to be incorporated into this Prospectus for purposes of future offers and sales of Securities hereunder. Upon a new information circular relating to an annual general meeting of holders of Common Shares being filed by us with the applicable securities regulatory authorities during the term of this Prospectus, the information circular for the preceding annual general meeting of holders of Common Shares shall be deemed no longer to be incorporated into this Prospectus for purposes of future offers and sales of Securities hereunder.

Any "template version" of any "marketing materials" (as such terms are defined in National Instrument 41-101) pertaining to a distribution of Securities will be filed under the Corporation's corporate profile on www.sedar.com. In the event that such marketing materials are filed subsequent to the date of filing of the applicable prospectus supplement pertaining to the distribution of the Securities to which such marketing materials relates and prior to the termination of such distribution, such filed versions of the marketing materials will be deemed to be incorporated by reference into the Prospectus for purposes of future offers and sales of Securities hereunder.

One or more Prospectus Supplements containing the specific variable terms for an issue of the Securities and other information in relation to such Securities will be delivered to purchasers of such Securities together with this Prospectus, except in cases where an exemption from such delivery requirement has been obtained, and will be deemed to be incorporated by reference into this Prospectus as of the date of the Prospectus Supplement solely for the purposes of the offering of the Securities covered by any such Prospectus Supplement.

DOCUMENTS FILED AS PART OF THE REGISTRATION STATEMENT

The following documents have been or will be filed with the SEC as part of the registration statement of which this Prospectus forms a part: (i) the documents set out under the heading "Documents Incorporated by Reference"; (ii) the consents of the Company's auditor and legal counsel; and (iii) the powers of attorney from the directors and certain officers of the Company. A copy of the form of warrant indenture, unit indenture or subscription receipt agreement, as applicable, will be filed by post-effective amendment or by incorporation by reference to documents filed or furnished with the SEC under the U.S. Exchange Act.

ADDITIONAL INFORMATION

The Company has filed with the SEC a registration statement on Form F-10 relating to the Securities. This Prospectus, which constitutes a part of the registration statement, does not contain all of the information contained in the registration statement, certain items of which are contained in the exhibits to the registration statement as permitted by the rules and regulations of the SEC. See "*Documents Filed as Part of the Registration Statement*". Statements included or incorporated by reference in this Prospectus about the contents of any contract, agreement or other documents referred to are not necessarily complete, and in each instance you should refer to the exhibits for a more complete description of the matter involved. Each such statement is qualified in its entirety by such reference. Each time we sell Securities under the registration statement, we will provide a Prospectus Supplement that will contain specific information about the terms of that offering. The Prospectus Supplement may also add to, update or change information contained in this Prospectus.

The Company is subject to the information requirements of the U.S. Exchange Act and applicable Canadian securities legislation and, in accordance therewith, files and furnishes annual and quarterly financial information and material change reports, business acquisition reports and other material with the securities commission or similar regulatory authority in each of the provinces of Canada and with the SEC. Under MJDS adopted by the United States and Canada, documents and other information that the Company files with the SEC may be prepared in accordance with the disclosure requirements of Canada, which are different from those of the United States. As a foreign private issuer within the meaning of rules made under the U.S. Exchange Act, the Company is exempt from the rules under the U.S. Exchange Act prescribing the furnishing and content of proxy statements, and the Company's officers, directors and principal shareholders are exempt from the reporting and shortswing profit recovery provisions contained in Section 16 of the U.S. Exchange Act. In addition, the Company is not required to publish financial statements as promptly as United States companies.

You may read any document that the Company has filed with the SEC on the SEC's website at www.sec.gov/edgar.shtml (EDGAR) and such information can also be inspected and copies ordered at the SEC's public reference room in Washington, D.C. You may also obtain copies of those documents from the public reference room of the SEC at 100 F Street, N.E., Washington, D.C. 20549 by paying a fee. You should call the SEC at 1-800-SEC-0330 or access its website at www.sec.gov for further information about the public reference rooms. You may read and download any public document that the Company has filed with the Canadian securities regulatory authorities under the Company's profile on the SEDAR website at www.sedar.com

THE CORPORATION

Oncolytics Biotech Inc. was incorporated pursuant to the ABCA on April 2, 1998 as 779738 Alberta Ltd. On April 8, 1998, we amended our articles of incorporation (the "**Articles**") and changed our name to Oncolytics Biotech Inc. On July 29, 1999, we further amended our Articles by removing the private company restrictions included therein and subdivided the 2,222,222 Common Shares issued and outstanding into 6,750,000 Common Shares. On February 9, 2007, we further amended our Articles to permit shareholder meetings to be held at any place in Alberta or at any other location as determined by our board of directors (the "**Board**").

We have two material operating subsidiaries: Oncolytics Biotech (Barbados) Inc. and Oncolytics Biotech (US) Inc., a Delaware corporation. Oncolytics Biotech (Barbados) Inc. is incorporated pursuant to the laws of Barbados and is a wholly-owned direct subsidiary of the Corporation. Oncolytics Biotech (U.S.) Inc. is incorporated pursuant to the laws of Delaware and is a wholly-owned direct subsidiary or Oncolytics Biotech (Barbados) Inc.

Our head office and principal place of business is located at 210, 1167 Kensington Crescent N.W., Calgary, Alberta, T2N 1X7. Our registered office is located at 4000, 421 - 7th Avenue S.W., Calgary, Alberta, T2P 4K9.

BUSINESS OF THE CORPORATION

General

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 (pelareorep), a systemically administered immuno-oncology ("**I-O**") viral agent 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, if and when, pelareorep becomes commercially viable.

Our potential product for human use, pelareorep, an unmodified reovirus, is a first in class systemically administered I-O viral agent for the treatment of solid tumors and hematological malignancies.

Scientific Background

Pelareorep's anti-tumor activity is based on three modes of action which are complementary but not interdependent (see Figure 1, below):

- Selective viral replication in permissive cancer cells which leads to tumor cell lysis.

- Activation of innate immunity in response to the infection which results in a cascade of chemokines/cytokines causing natural killer ("**NK**") cells to be activated and attack cancer cells.

- A specific adaptive immune response triggered by tumor- and viral-associated antigens displayed by antigen-presenting cells (including infected tumor cells and/or dendritic cells, "**APCs**") to T cells.

Summary of Research and Development highlights

Preclinical and Translational Research data to date indicate the following:

- Pelareorep has anticancer effects in models of metastatic cancers that can prolong survival in these models when using immuno-competent rodents.

    - The survival benefit in animal models can be enhanced when pelareorep is given in combination with chemotherapy, immunotherapy (e.g., checkpoint inhibitors, IMiDs, rituximab, etc.) or radiotherapy.

- A toxic dose of reovirus T3D has not been reached/established in animal models and infection presents with minimal side-effects.

Clinical data to date indicate the following:

- More than 1,400 patients have been enrolled in clinical studies conducted in the United States, Canada and the European Union. Of these, more than 1,000 patients received pelareorep, with over 930 via intravenous ("**IV**") administration and over 90 by intratumoral injections ("**ITu**"). The remaining patients were randomized to control arms.

- Pelareorep has been administered as single or multiple doses (intratumoral or intravenous), either as a mono-therapy or in combination with chemotherapy, immunotherapy (e.g., checkpoint inhibitors), and radiotherapy.

- No Maximum Tolerated Dose ("**MTD**") for intravenous pelareorep as mono-therapy was defined in the two Phase 1 trials (REO 004 and 005). Dose-limiting toxicities ("**DLTs**") were seen in some of the combination trials with pelareorep and chemotherapy, which generally enrolled heavily pre-treated patients.

- When combined with chemotherapeutic agents, pelareorep does not appear to enhance either the frequency or severity of the adverse effects of the chemotherapeutic agents.

- There is emerging evidence that pelareorep may impact overall survival ("**OS**") in metastatic breast cancer (MBC) and metastatic adenocarcinoma of the pancreas ("**MAP**"):

- In a randomized, controlled Phase 2 study of paclitaxel with pelareorep versus paclitaxel alone in MBC (CCTG IND. 213) median survival time was greater for subjects treated with paclitaxel and pelareorep (median 17.4 months) than subjects treated with paclitaxel alone (10.4 months, hazard ratio ("**HR**") 0.65).

- In a single arm study with gemcitabine plus pelareorep in first line MAP (REO 017) the median overall survival (mOS) was 10 months with a 1 year and 2-year survival of 46% and 24%, respectively.

- In a two-arm Phase 2 randomized study (NCI 8601), patients with MAP were randomized to receive either carboplatin, paclitaxel and pelareorep (test arm) or carboplatin and paclitaxel alone (control arm). The median OS was similar for both arms, but the probability of survival at Year 2 was 20% in the test arm vs 9% in the control arm.

Mechanism of Action

Figure 1. Proposed mechanism of action for pelareorep.

Direct cell lysis - Reovirus Replication in Permissive Cancer Cells

Selective viral replication and lysis in cancer cells and not normal cells is mediated by the host cellular protein PKR (dsRNA-activated protein kinase). In non-cancer cells that are infected with reovirus, PKR activates in the presence of the virus which in turn inhibits viral gene translation. However, in permissive cancer cells, PKR activation is inhibited, allowing for viral gene translation and eventual cell lysis.

It was originally established that selective lysis with reovirus was mediated by tumor cells with an activated RAS-pathway, since active RAS inhibits PKR activation. However, more recent investigations have revealed that reovirus replication is not just restricted to cells with an active RAS pathway, oncogenic mutations and amplifications in upstream ("**EGFR**") and downstream ("**BRAF**") mediators of the RAS-pathway also allow for viral replication and oncolysis. Moreover, active RAS is known to stimulate over 18 downstream effector proteins, many of which have been shown to facilitate viral replication, such as activation of Raf/MEK/ ERK, RalGEF/p38, and JNK signalling pathways. Cells bearing dysfunctional or deleted tumor suppressor genes (p53, ATM and Rb) and or chemo- or radiation-induced cell stress also show increased sensitivity to reovirus replication and lysis.

Induction of Innate Immunity

Preclinical and clinical studies provide compelling lines of evidence that pelareorep functions as an immunogenic agent. Indeed, preclinical studies by Steele and colleagues demonstrated that melanoma cells infected with pelareorep can produce an innate immune response triggering the release of inflammatory cytokines. This inflammatory milieu promotes a chemotactic response in NK cells, dendritic cells, and cytotoxic T-cells, altering the tumour microenvironment to support bystander immune-mediated cancer cell death. Intriguingly, preclinical studies have also demonstrated that the beneficial immunogenic functions of pelareorep can occur independent of viral replication. Pelareorep performs this immunogenic function, in part, by activating dendritic cells, key regulators of both adaptive and innate immunity. Dendritic cells activated by reovirus in turn stimulate the innate antitumor activity of NK (natural killer) cells through the release of proinflammatory cytokines, demonstrating that dendritic cells' recognition of reovirus may trigger a beneficial innate immune response.

A clinical trial with pelareorep (REO 013) provided an opportunity to study human NK cell activation, in humans, in a controlled manner. Ten colorectal cancer patients with liver metastases received between one and five doses of pelareorep prior to surgical resection of their tumor. NK cell activation peaked 24 to 48 hours post-infection, coincident with a peak of pro-inflammatory cytokines. NK cells within reovirus-treated blood mononuclear cells were stimulated to kill tumor targets, but not normal hepatocytes. Moreover, NK cells were able to hand-off virus to tumors for direct oncolytic killing. Similarly, NK cells within liver mononuclear cells became selectively cytotoxic towards tumor cells when activated by reovirus. These results showed that reovirus modulates human NK cell activity in vivo and suggest that this may contribute to the therapeutic effect of pelareorep.

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Induction of Adaptive Immunity

Adaptive anti-tumor immunity allows for elimination of existing cancer cells and performs constant surveillance, preventing relapse, and increasing patient overall survival. An adaptive immune response requires two signals: a signal from an APC, as well as a co-stimulation signal in the form of cytokines. In the absence of both signals, the adaptive immune response fails. Therapy with pelareorep has the potential to activate both signals. Following its therapeutic administration, pelareorep enhances the expression of 'foreign' antigens/markers on tumor cells. Oncolysis of tumor cells exposes tumor-associated antigens ("**TAAs**") and viral-associated antigens ("**VAAs**") for processing and presentation by APCs, such as dendritic cells. Through the combined actions of these immunological events, pelareorep facilitates the display of novel 'foreign' antigens on the surface of infected tumor cells and APCs. Simultaneously, pelareorep induces an inflammatory response promoting the expression of co-stimulatory molecules and inflammatory cytokines. Together, pelareorep mediated immunological events over-rule tumor antigen presentation impairments and initiate adaptive anti-tumor immunity.

By promoting the expression of novel antigens and the release of inflammatory cytokines, pelareorep, promotes an inflamed tumor phenotype. An inflamed tumor phenotype is characterized by NK and T-cell infiltration, increased expression of chemokines/ cytokines, and increased expression of checkpoint ligands. This phenotype correlates with an increase in overall survival and has a positive prognostic value for early stage cancers. In patients with metastatic cancer, an inflamed tumor phenotype is associated with better clinical outcomes when treated with immunotherapies, including immune checkpoint blockade inhibitors, cancer vaccines, and adoptive T-cell therapies. By promoting an inflamed tumor phenotype, pelareorep primes an anti-cancer immune response (see Figure 2, below).

Figure 2. Pelareorep (REOLYSIN) primes an anti-cancer immune response

Clinical Development Plan

We are directing a three-part clinical development program with the objective of developing pelareorep as a human cancer therapeutic. Our clinical development program focuses on the three components of pelareorep's mechanism of action and includes the following:

Chemo combinations

Our primary focus has been on the investigation of chemotherapy combination clinical trials investigating the use of different chemotherapy agents in various cancer indications. In 2017, we reported additional clinical data from our randomized clinical program which includes the clinical trial collaborations with the Canadian Cancer Trials Group ("**CCTG**", formerly known as the National Cancer Institute of Canada). Specifically, subgroup analysis in the IND.213 trial in MBC revealed a significant improvement in overall survival of patients that are hormone receptor positive ("**HR+**") / human epidermal growth factor receptor 2 negative ("**HER2-**"). In HR+/HER2- patients, REOLYSIN therapy in combination with paclitaxel doubled the overall survival from 10.8 month with paclitaxel therapy alone to 21.8 months with REOLYSIN plus paclitaxel. This increase in overall survival is consistent with previous survival data reported from our NCI pancreatic trial which suggests a long term survival benefit when comparing test and control arms at 24 months.

Combination with IMiDs/targeted therapy

Our second program focuses on the potential of pelareorep to stimulate a patient's innate immunity and the potential for an infection to cause a cascade of chemokines/cytokines activating NK cells to attack cancer cells. In 2017, patient enrollment commenced on a clinical collaboration with Myeloma UK and Celgene that combines pelareorep with immune modulator therapies ("**IMiDs**") which enhance NK cell activation.

Immunotherapy combinations

Our third program focuses on the potential for pelareorep to cause a specific adaptive immune response triggered by tumor- and viral-associated antigens displayed by APCs to T cells. In 2017 we announced our first data set combining a checkpoint inhibitor with pelareorep and pembrolizumab (Keytruda®) in pancreatic cancer, which demonstrated safety and tolerability and in five efficacy evaluable patients, one had a partial response (six-month duration) and two had stable disease (lasting 126 and 221 days). Additional basket study concepts are now being planned.

Business Strategy

Our business strategy is to develop and market pelareorep in an effective and timely manner, and access additional technologies at a time and in a manner that we believe is best for our development. We intend to achieve our business strategy by focusing on these key areas:

- Develop pelareorep through our clinical development plan assessing the safety and efficacy in human subjects;
- Establish collaborations with experts to assist us with scientific and clinical developments of this new potential pharmaceutical product;
- Implement strategic alliances with selected pharmaceutical and biotechnology companies and selected laboratories, at a time and in a manner where such alliances may complement and expand our research and development efforts on the product and provide sales and marketing capabilities;
- Utilize our broadening patent base and collaborator network as a mechanism to meet our strategic objectives; and

- Develop relationships with companies that could be instrumental in assisting us to access other innovative therapeutics.

Our business strategy is based on attaining a number of commercial objectives, which, in turn, are supported by a number of product development goals. Our new product development presently being conducted is primarily of a research and development nature. In this Prospectus, statements of our "belief" are based primarily upon our results derived to date from our research and development program with animals, early stage human trials and our most recent data in HR+/HER2- mBC patients, and upon which we believe that we have a reasonable scientific basis to expect the particular results to occur. It is not possible to predict, based upon studies in animals, or early stage human trials, whether a new therapeutic will ultimately prove to be safe and effective in humans. There are no assurances that the particular result expected by us will occur.

As of the date hereof, we do not intend to become a fully integrated pharmaceutical company with substantial in-house research and development, marketing and distribution or manufacturing capabilities. We are pursuing a strategy of establishing relationships with larger companies as strategic partners. We intend to partner or joint venture with larger pharmaceutical companies that have existing and relevant marketing capability for our products. It is anticipated that future clinical development into large international or pivotal trials would generally occur in conjunction with a strategic partner or partners, who would contribute expertise and financial assistance. In exchange for certain product rights and commitments to market our products, the strategic partners would be expected to share in gross proceeds from the sale of our product or products and potentially share in various market or manufacturing opportunities. The proceeds generated from partnering or joint venturing projects are expected to be distributed on the basis of relative risk taken and resources contributed by each party to the partnership or joint venture.

Recent Developments

On February 23, 2018, the Corporation received approval from the holders of Common Shares to amend the Articles to effect the consolidation of the issued and outstanding Common Shares on the basis of a consolidation ratio to be selected by the Board, in its sole discretion, provided that the ratio may be not less than two (2), and not more than fifteen (15), pre-consolidation Common Shares for each one post-consolidation Common Share, such amendment to become effective at a date in the future to be determined by the Board when the Board considers it to be in the best interests of the Corporation, but in any event no later than February 22, 2019, subject to approval of the Toronto Stock Exchange.

CONSOLIDATED CAPITALIZATION

There has been no material change in the share and loan capital of the Corporation on a consolidated basis since December 31, 2017.

USE OF PROCEEDS

The use of proceeds from the issue and sale of specific Securities pursuant to this Prospectus will be described in the Prospectus Supplement relating to the issuance and sale of such Securities.

DESCRIPTION OF SHARE CAPITAL

Authorized Capital

Our authorized capital consists of an unlimited number of Common Shares. The following is a summary of the provisions attached to our Common Shares.

Common Shares

The holders of our Common Shares are entitled to one vote per share at meetings of shareholders, to receive such dividends as declared by the Board and to receive our remaining property and assets upon dissolution or wind up. Our Common Shares are not subject to any future call or assessment and there are no pre-emptive, conversion or redemption rights attached to such shares.

As at the date hereof, we have 142,325,222 Common Shares issued and outstanding. After giving effect to the exercise of all outstanding options to acquire Common Shares and all outstanding share awards granted under the Corporation's Incentive Share Award Plan, we would have 154,164,330 Common Shares issued and outstanding.

Common Share Purchase Warrants

As of the date hereof, we have 16,445,000 Common Share purchase warrants (the "**2017 Warrants**") issued and outstanding. Each 2017 Warrant entitles the holder to purchase one Common Share until June 1, 2022, at an exercise price of $0.95. The 2017 Warrants are subject to acceleration if the volume weighted average price of the Common Shares equals or exceeds $2.50 for a period of 15 consecutive trading dates.

In addition, as of the date hereof, the Corporation has outstanding Common Share purchase warrants as follows:

- a Common Share purchase warrant (the "**First Adlai Warrant**") exercisable by the holder thereof until May 14, 2018 to purchase such number of Common Shares as is calculated by dividing US$2,000,000 by the Exercise Price (as defined below); and

- a Common Share purchase warrant (the "**Second Adlai Warrant**") exercisable by the holder thereof until November 14, 2020 to purchase such number of Common Shares as is calculated by dividing US$6,000,000 by the Exercise Price.

For purposes of the First Adlai Warrant and the Second Adlai Warrant, the term "**Exercise Price**" means an amount equal to 120% of the volume weighted average trading price of the Common Shares on the TSX (or, if the Common Shares begin trading on The NASDAQ Capital Market, on The NASDAQ Capital Market as of the date such trading commences) for the five trading days immediately preceding the exercise date.

The First Adlai Warrant is subject to a right to call by the Corporation upon the later of: (i) May 14, 2018; and (ii) the date of the enrollment of the first patient in a Phase III Study related to pelareorep. The Second Adlai Warrant is subject to a right to call by the Corporation upon the date of the enrollment of the fiftieth (50^{th}) patient in a Phase III Study related to pelareorep.

DESCRIPTION OF SUBSCRIPTION RECEIPTS

The following description of the terms of Subscription Receipts sets forth certain general terms and provisions of Subscription Receipts in respect of which a Prospectus Supplement may be filed. The particular terms and provisions of Subscription Receipts offered by any Prospectus Supplement, and the extent to which the general terms and provisions described below may apply thereto, will be described in the Prospectus Supplement filed in respect of such Subscription Receipts.

Subscription Receipts may be offered separately or in combination with one or more other Securities. The Subscription Receipts will be issued under a subscription receipt agreement (the "**Subscription Receipt Agreement**"). A copy of the Subscription Receipt Agreement will be filed by us with the applicable securities regulatory authorities after it has been entered into by us and will be available electronically at www.sedar.com and, if applicable, we will file with the SEC as exhibits to the registration statement of which this Prospectus is a part, or will incorporate by reference from a Report of Foreign Private Issuer on Form 6-K that we file with the SEC, any Subscription Agreement describing the terms and conditions of such Subscription Receipts that we are offering before the issuance of such Subscription Receipts.

Pursuant to the Subscription Receipt Agreement, original purchasers of Subscription Receipts will have a contractual right of rescission against the Corporation, following the issuance of the underlying Common Share or other securities to such purchasers upon the surrender or deemed surrender of the Subscription Receipts, to receive the amount paid for the Subscription Receipts in the event that this Prospectus or a Prospectus Supplement, and any amendment thereto, contains a misrepresentation or is not delivered to such purchaser, provided such remedy for rescission is exercised within 180 days from the closing date of the offering of Subscription Receipts.

The description of general terms and provisions of Subscription Receipts described in any Prospectus Supplement will include, where applicable:

- the number of Subscription Receipts offered;

- the price at which the Subscription Receipts will be offered;
- if other than Canadian dollars, the currency or currency unit in which the Subscription Receipts are denominated;
- the procedures for the exchange of the Subscription Receipts into Common Shares or other securities;
- the number of Common Shares or other securities that may be obtained upon exercise of each Subscription Receipt;
- the designation and terms of any other Securities with which the Subscription Receipts will be offered, if any, and the number of Subscription Receipts that will be offered with each Security;
- the terms applicable to the gross proceeds from the sale of the Subscription Receipts plus any interest earned thereon;
- the material Canadian tax consequences of owning such Subscription Receipts; and
- any other material terms, conditions and rights (or limitations on such rights) of the Subscription Receipts.

We reserve the right to set forth in a Prospectus Supplement specific terms of the Subscription Receipts that are not within the options and parameters set forth in this Prospectus. In addition, to the extent that any particular terms of the Subscription Receipts described in a Prospectus Supplement differ from any of the terms described in this Prospectus, the description of such terms set forth in this Prospectus shall be deemed to have been superseded by the description of such differing terms set forth in such Prospectus Supplement.

DESCRIPTION OF WARRANTS

The following description of the terms of Warrants sets forth certain general terms and provisions of Warrants in respect of which a Prospectus Supplement may be filed. The particular terms and provisions of Warrants offered by any Prospectus Supplement, and the extent to which the general terms and provisions described below may apply thereto, will be described in the Prospectus Supplement filed in respect of such Warrants. Warrants may be offered separately or in combination with one or more other Securities. If applicable, we will file with the SEC as exhibits to the registration statement of which this Prospectus is a part, or will incorporate by reference from a current report on Form 6-K that we file with the SEC, any warrant indenture or form of warrant describing the terms and conditions of such Warrants that we are offering before the issuance of such Warrants.

The description of general terms and provisions of Warrants described in any Prospectus Supplement will include, where applicable:

- the designation and aggregate number of Warrants offered;
- the price at which the Warrants will be offered;
- if other than Canadian dollars, the currency or currency unit in which the Warrants are denominated;
- the designation and terms of the Common Shares that may be acquired upon exercise of the Warrants;
- the date on which the right to exercise the Warrants will commence and the date on which the right will expire;
- the number of Common Shares that may be purchased upon exercise of each Warrant and the price at which and currency or currencies in which that amount of securities may be purchased upon exercise of each Warrant;
- the designation and terms of any Securities with which the Warrants will be offered, if any, and the number of the Warrants that will be offered with each Security;
- the date or dates, if any, on or after which the Warrants and the related Securities will be transferable separately;
- the minimum or maximum amount, if any, of Warrants that may be exercised at any one time;

- whether the Warrants will be subject to redemption or call, and, if so, the terms of such redemption or call provisions; and

- any other material terms, conditions and rights (or limitations on such rights) of the Warrants.

We reserve the right to set forth in a Prospectus Supplement specific terms of the Warrants that are not within the options and parameters set forth in this Prospectus. In addition, to the extent that any particular terms of the Warrants described in a Prospectus Supplement differ from any of the terms described in this Prospectus, the description of such terms set forth in this Prospectus shall be deemed to have been superseded by the description of such differing terms set forth in such Prospectus Supplement.

DESCRIPTION OF UNITS

We may issue Units comprised of one or more of the other Securities described in this Prospectus in any combination. Each Unit will be issued so that the holder of the Unit is also the holder of each Security included in the Unit. Thus, the holder of a Unit will have the rights and obligations of a holder of each included Security. The unit agreement, if any, under which a Unit is issued may provide that the Securities comprising the Unit may not be held or transferred separately, at any time or at any time before a specified date. If applicable, we will file with the SEC as exhibits to the registration statement of which this Prospectus is a part, or will incorporate by reference from a current report on Form 6-K that we file with the SEC, any unit agreement describing the terms and conditions of such Units that we are offering before the issuance of such Units.

The particular terms and provisions of Units offered by any Prospectus Supplement, and the extent to which the general terms and provisions described below may apply to them, will be described in the Prospectus Supplement filed in respect of such Units.

The particular terms of each issue of Units will be described in the related Prospectus Supplement. This description will include, where applicable:

- the designation and aggregate number of Units offered;
- the price at which the Units will be offered;
- if other than Canadian dollars, the currency or currency unit in which the Units are denominated;
- the terms of the Units and of the Securities comprising the Units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions for the issuance, payment, settlement, transfer or exchange of the Units or of the Securities comprising the Units; and
- any other material terms, conditions and rights (or limitations on such rights) of the Units.

We reserve the right to set forth in a Prospectus Supplement specific terms of the Units that are not within the options and parameters set forth in this Prospectus. In addition, to the extent that any particular terms of the Units described in a Prospectus Supplement differ from any of the terms described in this Prospectus, the description of such terms set forth in this Prospectus shall be deemed to have been superseded by the description of such differing terms set forth in such Prospectus Supplement with respect to such Units.

PLAN OF DISTRIBUTION

We may sell the Securities to or through one or more underwriters or dealers purchasing as principals and we may also sell the Securities to one or more purchasers directly, through applicable statutory exemptions, or through one or more agents designated from time to time. The Securities may be sold from time to time in one or more transactions at fixed prices or not at fixed prices, such as market prices prevailing at the time of sale, prices related to such prevailing market prices or prices to be negotiated with purchasers, which prices may vary as between purchasers and during the period of distribution of the Securities. The Prospectus Supplement relating to a particular offering and sale of Securities will identify each underwriter, dealer or agent engaged in connection with the offering and sale of such Securities, as well as the method of distribution and the terms of the offering and sale of such Securities, including the initial offering price (in the event the offering is a fixed price distribution), the manner of determining the offering price(s) (in the event the offering is not a fixed price distribution), the net proceeds to us and, to the extent applicable, any fees, discounts or any other compensation payable to underwriters, dealers or agents and any other material terms. Only underwriters so named in the Prospectus Supplement are deemed to be underwriters in connection with the Securities offered and sold thereby.

If the underwriters purchase Securities from us as principal, the Securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale, at market prices prevailing at the time of sale or at prices related to such prevailing market prices. The obligations of the underwriters to purchase such Securities as principal will be subject to certain conditions precedent, and the underwriters will be obligated to purchase all the Securities offered and sold by the Prospectus Supplement if any of such Securities are purchased. Any public offering price and any discounts or concessions allowed or re-allowed or paid to underwriters, dealers or agents may be changed from time to time.

The Securities may be sold from time to time in one or more transactions at a fixed price or prices which may be changed or at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices, including sales in transactions that are deemed to be “at-the-market distributions” as defined in National Instrument 44-102 – *Shelf Distributions*, including sales made directly on the TSX or other existing trading markets for the Common Shares. In the event that we elect to pursue an “at-the-market distribution” in Canada, we will apply for the required exemptive relief from the applicable securities commissions or similar regulatory authorities in Canada. The prices at which the Securities may be offered may vary as between purchasers and during the period of distribution. If, in connection with the offering of Securities at a fixed price or prices, the underwriters have made a bona fide effort to sell all of the Securities at the initial offering price fixed in the applicable Prospectus Supplement, the public offering price may be decreased and thereafter further changed, from time to time, to an amount not greater than the initial public offering price fixed in such Prospectus Supplement, in which case the compensation realized by the underwriters will be decreased by the amount that the aggregate price paid by purchasers for the Securities is less

than the gross proceeds paid to us by the underwriters. Any such reduction to the public offering price will not affect the net proceeds received by the Corporation.

The Securities may also be sold directly by us, pursuant to applicable statutory exemptions, at such prices and upon such terms as agreed to by us and the purchaser or through one or more agents designated by us from time to time. Any agent involved in the offering and sale of the Securities in respect of which this Prospectus is delivered will be named, and any commissions payable by us to such agent will be set forth, in the Prospectus Supplement. Unless otherwise indicated in the Prospectus Supplement, any agent would be acting on a best efforts basis for the period of its appointment.

We may agree to pay the underwriters a commission for various services relating to the issue and sale of any Securities offered hereby. Any such commission will be paid out of our general funds. Underwriters, dealers and agents who participate in the distribution of the Securities may be entitled under agreements to be entered into with us to indemnification by us against certain liabilities under securities legislation, or to contribution with respect to payments which such underwriters, dealers or agents may be required to make in respect thereof.

Any offering of Subscription Receipts, Warrants or Units will be a new issue of securities with no established trading market. Unless otherwise specified in the applicable Prospectus Supplement, the Subscription Receipts, Warrants or Units will not be listed on any securities exchange. Certain dealers may make a market in these Securities, but will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given that any dealer will make a market in these Securities or as to the liquidity of the trading market, if any, for these Securities. See "*Risk Factors*".

Unless otherwise specified in a Prospectus Supplement, in connection with any offering of the Securities, the underwriters or agents may over-allot or effect transactions which stabilize or maintain the market price of the Securities offered at a higher level than that which might exist in the open market. Such transactions, if commenced, may be interrupted or discontinued at any time.

PRIOR SALES

Information regarding prior sales of Securities will be provided as required in a Prospectus Supplement with respect to the issuance of Securities pursuant to such Prospectus Supplement.

TRADING PRICE AND VOLUME

Information regarding trading price and volume of the Securities will be provided as required for all of the Corporation's issued and outstanding Securities that are listed on any securities exchange, as applicable, in each Prospectus Supplement.

CERTAIN INCOME TAX CONSIDERATIONS

The applicable Prospectus Supplement may describe certain Canadian federal income tax consequences which may be applicable to a purchaser of Securities offered thereunder, and may also include a discussion of certain United States federal income tax consequences to the extent applicable.

LEGAL MATTERS AND INTEREST OF EXPERTS

Unless otherwise specified in the Prospectus Supplement relating to an offering and sale of Securities, certain legal matters relating to such offering and sale of Securities will be passed upon on behalf of the Corporation by McCarthy Tétrault LLP with respect to matters of Canadian law and Dorsey & Whitney LLP, with respect to matters of U.S. law. In addition, certain legal matters in connection with an offering and sale of Securities will be passed upon for any underwriters, dealers or agents by counsel to be designated at the time of such offering and sale by such underwriters, dealers or agents with respect to matters of Canadian and, if applicable, United States or other foreign law. As at the date hereof, the partners and associates of McCarthy Tétrault LLP, as a group, own less than 1% of the outstanding securities of the Corporation.

AUDITORS, TRANSFER AGENT AND REGISTRAR

The auditor of the Corporation is Ernst & Young LLP, Chartered Professional Accountants, Calgary, Alberta. Ernst & Young LLP has confirmed that it is independent of the Corporation within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and applicable legislation or regulations.

The transfer agent and registrar for the Common Shares is Computershare Trust Company of Canada at its principal offices located in Calgary, Alberta and Toronto, Ontario.

AGENT FOR SERVICE OF PROCESS

Messrs. Wayne Pisano, William G. Rice and Bernd R. Seizinger are directors of the Corporation who reside outside of Canada. Messrs. Pisano, Rice and Seizinger have appointed the Corporation, at its principal place of business, as agent

for service of process. Purchasers are advised that it may not be possible for investors to enforce judgments obtained in Canada against any person that resides outside of Canada, even if the party has appointed an agent for service of process.

ENFORCEABILITY OF CIVIL LIABILITIES AGAINST NON-U.S. PERSONS

The Company is a corporation existing under the *Business Corporations Act* (Alberta). Most of the Company's directors and officers, and some or all of the experts named in this Prospectus, are residents of Canada or otherwise reside outside the United States, and all or a substantial portion of their assets, and substantially all of the Company's assets, are located outside the United States. The Company has appointed an agent for service of process in the United States, but it may be difficult for holders of Securities who reside in the United States to effect service within the United States upon those directors, officers and experts who are not residents of the United States. It may also be difficult for holders of Securities who reside in the United States to realize in the United States upon judgments of courts of the United States predicated upon the Company's civil liability and the civil liability of its directors, officers and experts under the United States federal securities laws.

The Company filed with the SEC, concurrently with its registration statement on Form F-10 of which this Prospectus is a part, an appointment of agent for service of process on Form F-X. Under the Form F-X, the Company appointed DL Services Inc. as its agent for service of process in the United States in connection with any investigation or administrative proceeding conducted by the SEC, and any civil suit or action brought against or involving the Company in a United States court arising out of or related to or concerning the offering of the Securities under this Prospectus.

PART II

INFORMATION NOT REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

Under the *Business Corporations Act* (Alberta), Oncolytics Biotech Inc. (the "Corporation") may indemnify a director or officer, a former director or officer, or a person who acts or acted at the Corporation's request as a director or officer or a body corporate of which the Corporation is or was a shareholder or creditor, and the director's or officer's heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal or administrative action or proceeding to which the individual is involved because of that association with the Corporation or other entity, and the Corporation may advance moneys to such an individual for the costs, charges and expenses of such a proceeding. The Corporation may not indemnify such an individual unless the individual acted honestly and in good faith with a view to the best interests of the Corporation, or, as the case may be, to the best interests of the other entity for which the individual acted as a director or officer or in a similar capacity at the Corporation's request, and, in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, the individual had reasonable grounds for believing that the individual's conduct was lawful. In addition, the individual must repay any moneys advanced by the Corporation if the individual has not fulfilled the conditions set out in the preceding sentence. Such indemnification or advance of moneys may be made in connection with a derivative action only with court approval. Such an individual is entitled to indemnification from the Corporation as a matter of right if the individual was not judged by the court or other competent authority to have committed any fault or omitted to do anything that the individual ought to have done, and the individual fulfilled the conditions set forth above.

In accordance with and subject to the *Business Corporations Act* (Alberta), the by-laws of the Corporation provide that the Corporation shall indemnify a director or officer, a former director or officer, or a person who acts or acted at the Corporation's request as a director or officer, or a body corporate of which the Corporation is or was a shareholder or creditor, and the director's or officer's heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by him in respect of any civil, criminal or administrative action or proceeding to which he is made a party by reason of being or having been a director or officer of the Corporation or other entity if he acted honestly and in good faith with a view to the best interests of the Corporation or, as the case may be, to the best interests of the other entity for which he acted as a director or officer at the Corporation's request, and, in the case of a criminal or administrative action or proceeding that is enforced by monetary penalty, he had reasonable grounds for believing that his conduct was lawful. The Corporation shall also indemnify such person in such other circumstances as the *Business Corporations Act* (Alberta) permits or requires.

The Corporation maintains a directors' & officers' insurance policy for the benefit of the directors and officers of the Corporation and its subsidiaries against liability incurred by them in their official capacities for which they become obligated to pay to the extent permitted by applicable law.

Insofar as indemnification for liabilities arising under the U.S. Securities Act of 1933, as amended, may be permitted to directors, officers or persons controlling the Corporation pursuant to the foregoing provisions, the Corporation has been informed that, in the opinion of the U.S. Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

EXHIBITS

See the Exhibit Index attached hereto

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PART III

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

Item 1. Undertaking

The Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to the securities registered pursuant to this Form F-10 or to transactions in said securities.

Item 2. Consent to Service of Process

Concurrently with the filing of this Registration Statement on Form F-10, the Registrant is filing with the Commission a written irrevocable consent and power of attorney on Form F-X.

Any change to the name and address of the agent for service of the Registrant will be communicated promptly to the Commission by amendment to Form F-X referencing the file number of this Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-10 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Calgary, Province of Alberta, Canada, on April 25, 2018.

ONCOLYTICS BIOTECH INC.

By: /s/ Matthew C. Coffey
Matthew C. Coffey
Chief Executive Officer

Each person whose signature appears below constitutes and appoints Matthew C. Coffey and Kirk J. Look, and each of them, either of whom may act without the joinder of the other, as his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement and registration statements filed pursuant to Rule 429 under the Securities Act, and to file the same, with all exhibits thereto and other documents in connection therewith, with the U.S. Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, each acting alone, or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by or on behalf of the following persons in the capacities indicated on April 25, 2018:

Signature	**Title**
/s/ Matthew C. Coffey Matthew C. Coffey	President, Chief Executive Officer and Chairman of the Board (Principal Executive Officer)
/s/ Kirk J. Look Kirk J. Look	Chief Financial Officer (Principal Financial and Accounting Officer)

/s/ Wayne Pisano

Wayne Pisano — Director

/s/ Deborah M. Brown

Deborah M. Brown — Director

/s/ Angela Holtham

Angela Holtham — Director

/s/ J. Mark Lievonen

J. Mark Lievonen — Director

/s/ William G. Rice

William G. Rice — Director

/s/ Bernd R. Seizinger

Bernd R. Seizinger — Director

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AUTHORIZED REPRESENTATIVE

Pursuant to the requirements of Section 6(a) of the Securities Act of 1933, the Authorized Representative has signed this Registration Statement, solely in his capacity as the duly authorized representative of Oncolytics Biotech Inc. in the United States, executed in Alberta, Canada, on April 25, 2018.

Oncolytics Biotech (US) Inc.

By: /s/ Kirk J. Look
Name: Kirk J. Look
Title: Chief Financial Officer

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EXHIBIT INDEX

Exhibit Number	**Description**
4.1*	The Registrant's annual report on Form 20-F, dated March 19, 2018, for the year ended December 31, 2017, filed with the Commission on March 19, 2018 and incorporated herein by reference.
4.2*	The Registrant's Management Information Circular, dated March 27, 2018, relating to the annual general meeting of the shareholders to be held on May 3, 2018, incorporated by reference to the Registrant's Report on Form 6-K, furnished to the Commission on April 25, 2018.
4.3*	The Registrant's audited consolidated financial statements, together with the notes thereto, as at December 31, 2017 and 2016, which comprise the consolidated statements of financial position as at December 31, 2017 and 2016, and the consolidated statements of loss and comprehensive loss, changes in equity, and cash flows for the years ended December 31, 2017 and 2016, together with the independent auditors' report thereon, included as Item 18 to the Registrant's annual report on Form 20-F, filed with the Commission on March 19, 2018 and incorporated herein by reference.
4.4*	The Registrant's management's discussion and analysis of financial condition and results of operations of the Registrant, dated March 8, 2018, for the year ended December 31, 2017, incorporated by reference to Exhibit 15.1 to the Registrant's annual report on Form 20-F, filed with the Commission on March 19, 2018.
5.1	Consent of Ernst & Young LLP dated April 25, 2018
6.1	Powers of Attorney (included on the signature pages of this Registration Statement)

* - Previously filed or furnished to the Commission.

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