UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Fiscal Year Ended December 31, 2016

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Transition Period from to

Commission File Number: [001-34949]

Arbutus Biopharma Corporation

(Exact Name of Registrant as Specified in Its Charter)

British Columbia, Canada	**980,597,776**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

100-8900 Glenlyon Parkway, Burnaby, BC V5J 5J8
(Address of Principal Executive Offices)

604-419-3200
(Registrant's Telephone Number, Including Area Code):

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	**Name of Each Exchange on Which Registered**
Common shares, without par value	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer x	Non-accelerated filer o	Smaller reporting company o
		(Do not check if a smaller reporting company)	

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

As of June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter, the approximate aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant was $190,692,659 (based on the closing price of $3.48 per share as reported on the NASDAQ Global Market as of that date).

As of March 14, 2017, the registrant had 55,023,207 Common Shares, no par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s definitive proxy statement for its 2017 Annual Meeting of Stockholders, which the registrant intends to file pursuant to Regulation 14A with the Securities and Exchange Commission not later than 120 days after the registrant’s fiscal year end of December 31, 2016, are incorporated by reference into Part III of this Form 10-K.

ARBUTUS BIOPHARMA CORPORATION

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Cautionary Note Regarding Forward-looking Statements

This annual report on Form 10-K contains forward-looking statements within the meaning of the Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and forward looking information within the meaning of Canadian securities laws (collectively, "forward-looking statements").

Forward-looking statements in this annual report include statements about Arbutus' strategy, future operations, clinical trials, prospects and the plans of management; the composition and roles of the management team; Arbutus' continued listing on NASDAQ; the effects of Arbutus' products on the treatment of cancer, chronic Hepatitis B infection and other diseases; using a combination of HBV drug candidates to effect patient benefit and develop a potential cure; intervening at different points in the viral life cycle; evaluating combinations of two or more drug candidates in cohorts of patients with chronic HBV infection; conducting Phase III clinical trials intended to ultimately support regulatory filings for marketing approval; continuing to expand our HBV pipeline through internal development, acquisitions and in-licenses; the format and timing of the ARB-1467 Phase II multi-dosing study, including the expectation of additional phase II clinical data and the results of Cohort 4 in the first half of 2017; incorporating technological and product design advancements that may result in an improvement in safety and/or efficacy; the potential of ARB-1740 to be effective at lower clinical doses than ARB-1467; initiating a healthy volunteer study for AB-423 in 2017; continuing to explore opportunities to generate value from our LNP platform technology; TKM-ALDH inducing prolonged ethanol sensitivity that will enable it to overcome the compliance limitations associated with daily dosing; expecting top-line data from Alnylam's patisiran APOLLO clinical trial in mid-2017, and an NDA filing for the program and MAA by the end of 2017; receiving up to $75 million from Alexion in the form of milestone payments, as well as single digit royalties; conducting technology development and providing manufacturing and regulatory support for the rapid advancement of Alexion's mRNA product candidate; receiving low to mid-single digit royalties as Alnylam's LNP-enabled products are commercialized; arbitration proceedings with the University of British Columbia in connection with alleged unpaid royalties; the expected return from strategic alliances, licensing agreements, and research collaborations; the expectation to see future changes in the fair value of our warrant liability; the plan to use March 2015 public offering proceeds to develop and advance product candidates through clinical trials, as well as for working capital and general corporate purposes; using the newly leased Warminster facility to expand our U.S. research and development activities; receiving payments for the Alnylam license agreement; royalty and milestone payments to Blumberg and Drexel under the license agreement; royalty and milestone payments to Enantigen's stockholders; a potential exclusive, royalty bearing, worldwide license with Blumberg; having sufficient cash resources for at least the next 12 months; milestone payments and royalties to Arcturus under the license agreement; when we will adopt recent accounting updates, and the expected impact; Arbutus' intent to retain earnings, if any, to finance the growth and development of their business and not to pay dividends or to make any other distributions in the near future; statements with respect to revenue and expense fluctuation and guidance; predicted tax treatment; remediating the identified material weakness in internal control over financial reporting in a timely manner, including establishing a more comprehensive schedule for management review and control over critical inputs to the intangible asset impairment valuation model; and the quantum and timing of potential funding.

With respect to the forward-looking statements contained in this annual report, Arbutus has made numerous assumptions. While Arbutus considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties and contingencies.

Our actual results could differ materially from those discussed in the forward-looking statements as a result of a number of important factors, including the factors discussed in this annual report on Form 10-K, including those discussed in Item 1A of this report under the heading "Risk Factors," and the risks discussed in our other filings with the Securities and Exchange Commission and Canadian Securities Regulators. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's analysis, judgment, belief or expectation only as of the date hereof. We explicitly disclaim any obligation to update these forward-looking statements to reflect events or circumstances that arise after the date hereof, except as required by law.

PART I

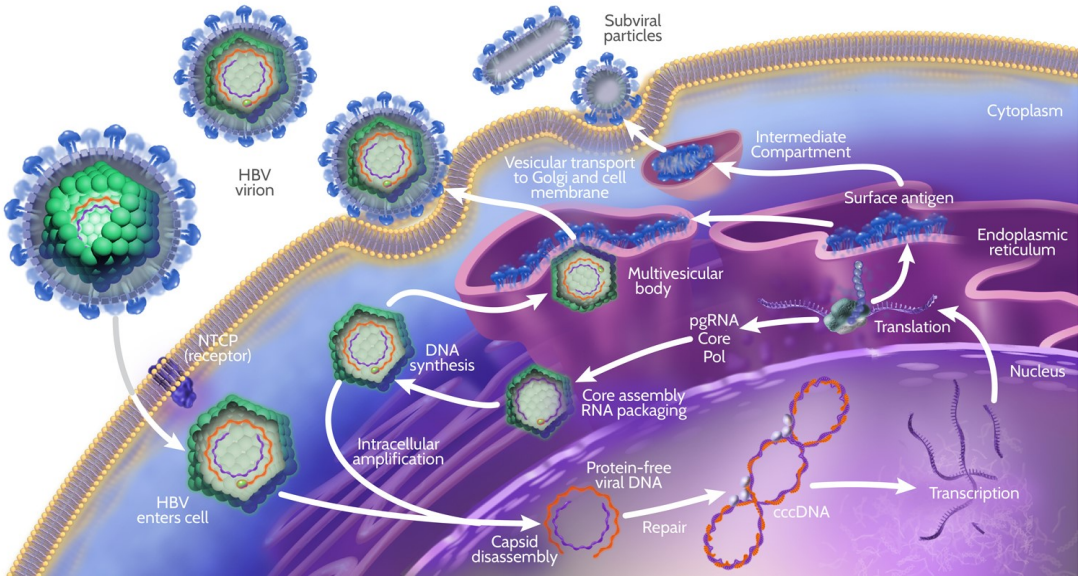
1. Business

Overview

We are a publicly traded (Nasdaq: ABUS) therapeutic solutions company dedicated to discovering, developing and commercializing a cure for patients suffering from chronic Hepatitis B virus (HBV) infection. To pursue our strategy of developing a curative combination regimen, we have assembled an HBV pipeline consisting of multiple drug candidates with differing and complementary mechanisms of action.

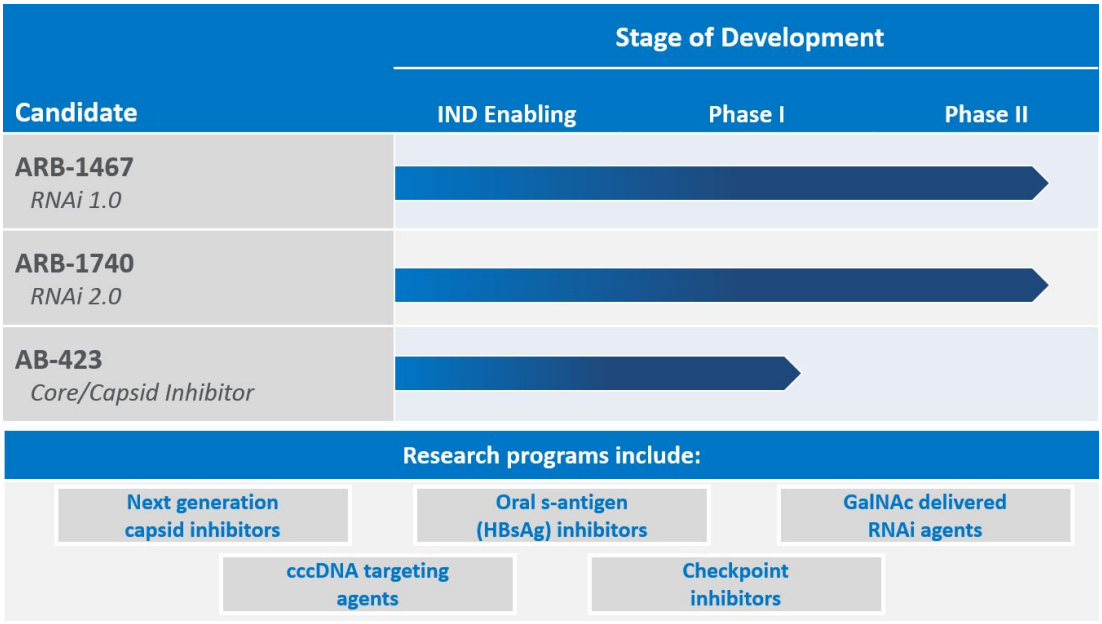
HBV represents a significant unmet medical need and is the cause of the most common serious liver infection in the world. The World Health Organization estimates that 350 million people worldwide are chronically infected, and other estimates suggest this could include approximately 2 million people in the United States (Kowdley *et al.*, 2012). Individuals chronically infected with HBV are at an increased risk of developing significant liver disease, including cirrhosis, or permanent scarring of the liver, as well as liver failure and hepatocellular carcinoma (HCC) or liver cancer. According to the Hepatitis B Foundation, HBV is the cause of up to 80% of liver cancers. Individuals with liver cancer typically have a five-year survival rate of only 15%. The WHO estimates that more than 780,000 people die every year due to the consequences of hepatitis B virus disease.

Given the biology of HBV (as shown in the graphic below), we believe combination therapies are the key to HBV treatment and a potential cure, and development can be accelerated when multiple components of a combination therapy regimen are controlled by the same company.



HBV Focused Product Pipeline

Our product pipeline, like our business, is focused on finding a cure for chronic HBV infection, with the objective of developing a suite of products that intervene at different points in the viral life cycle, and have the potential to reactivate the host immune system. Given our strong scientific and research capabilities in-house, we are able to conduct preclinical combination studies to evaluate combinations of our proprietary pipeline candidates. Once compounds within the portfolio with sufficient activity have been identified, we intend, subject to discussions with regulatory authorities, to evaluate combinations of two or more drug candidates in cohorts of patients with chronic HBV infection. We expect to use these results to adaptively design additional treatment regimens for the next cohorts. We also plan to evaluate different treatment durations to determine the optimal finite duration of therapy. We plan to continue this iterative process until we select combination therapy regimens and treatment durations to conduct Phase III clinical trials intended to ultimately support regulatory filings for marketing approval. Our pipeline of HBV product candidates includes:

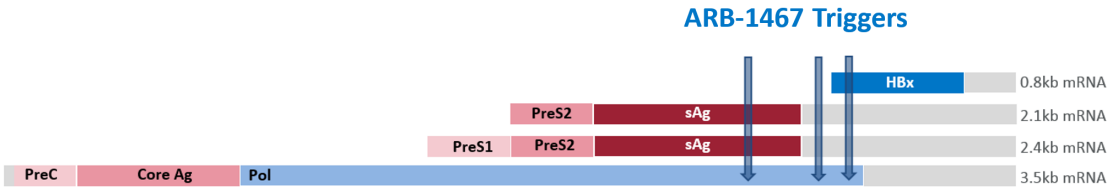


We intend to continue to expand our HBV pipeline through internal development, and possibly acquisitions and in-licenses. We also have a research collaboration agreement with the Baruch S. Blumberg Institute that provides exclusive rights to in-license any intellectual property generated through the collaboration. For more information about this agreement please refer to the "Strategic Alliances, Licensing Agreements, and Research Collaborations" section of this annual report on Form 10-K below.

RNAi 1.0 (ARB-1467)

The development of RNA Interference (RNAi) drugs allows for a completely novel approach to treating disease, which is why RNAi is considered one of the most promising and rapidly advancing frontiers in drug discovery. While there are no RNAi therapeutics currently approved for commercial use, there are a number of RNAi products currently in human clinical trials. RNAi products are broadly applicable as they can eliminate the production of disease-causing proteins from cells, creating opportunities for therapeutic intervention that have not been achievable with conventional drugs. Our extensive experience in antiviral drug development has been applied to our RNAi program to develop therapeutics for chronic hepatitis B infection. Small molecule nucleotide therapy has been the standard of care for chronic HBV infected patients. However, many of these patients continue to express a viral protein called HBV surface antigen (HBsAg). This protein causes inflammation in the liver leading to cirrhosis and, in some cases, HCC and death.

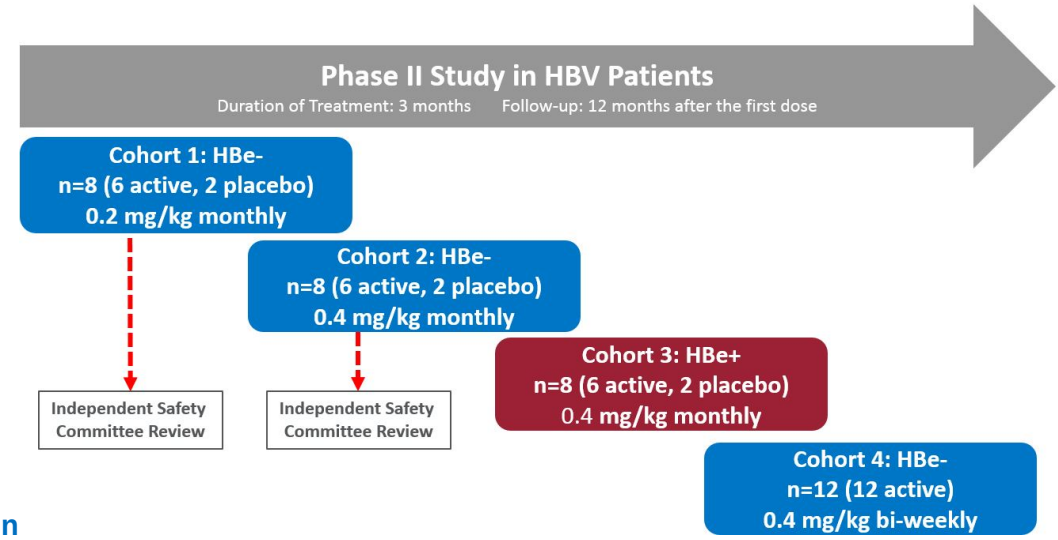
Our lead RNAi HBV candidate, ARB-1467, is designed to eliminate HBsAg expression in patients chronically infected with HBV. Reducing HBsAg is thought to be a key prerequisite to enable a patient's immune system to raise an adequate immune response against the virus. The ability of ARB-1467 to inhibit numerous viral elements in addition to HBsAg increases the likelihood of affecting the viral infection. ARB-1467 is being developed as a multi-component (3-trigger) RNAi therapeutic that simultaneously targets three sites on the HBV genome, including the HBsAg coding region. Targeting three distinct and highly conserved sites on the HBV genome is intended to facilitate potent knockdown of all viral mRNA transcripts and viral antigens across a broad range of HBV genotypes and reduce the risk of developing antiviral resistance.



ARB-1467 results in potent and rapid reduction in HBsAg in several preclinical models. In these models, ARB-1467 treatment resulted in reductions in both intrahepatic and serum HBsAg, as well as reductions in HBV DNA, cccDNA, Hepatitis B e antigen (HBeAg) and Hepatitis B c antigen (HBcAg). A rapid 1 log reduction in serum HBsAg was achieved with a single 1 mg/kg dose of ARB-1467 in the humanized mouse model. 1-2 log viral reductions from similar single-dose Lipid Nanoparticle (LNP) treatments in two other true-infection animal models were also demonstrated. Preclinical studies conducted on infected primary human hepatocytes showed that ARB-1467 had robust and consistent activity against different viral strains representing the major clinical genotypes A, B, C and D. Our data shows that inclusion of three RNAi triggers results in a more broadly effective knockdown of hepatitis B viral elements than a single trigger alone. The mode of action of ARB-1467 complements standard of care nucleoside/nucleotide (NUC) therapy, and lack of drug antagonism has been demonstrated with entecavir, lamivudine and tenofovir on infected primary human hepatocytes, making combination therapy a viable option.

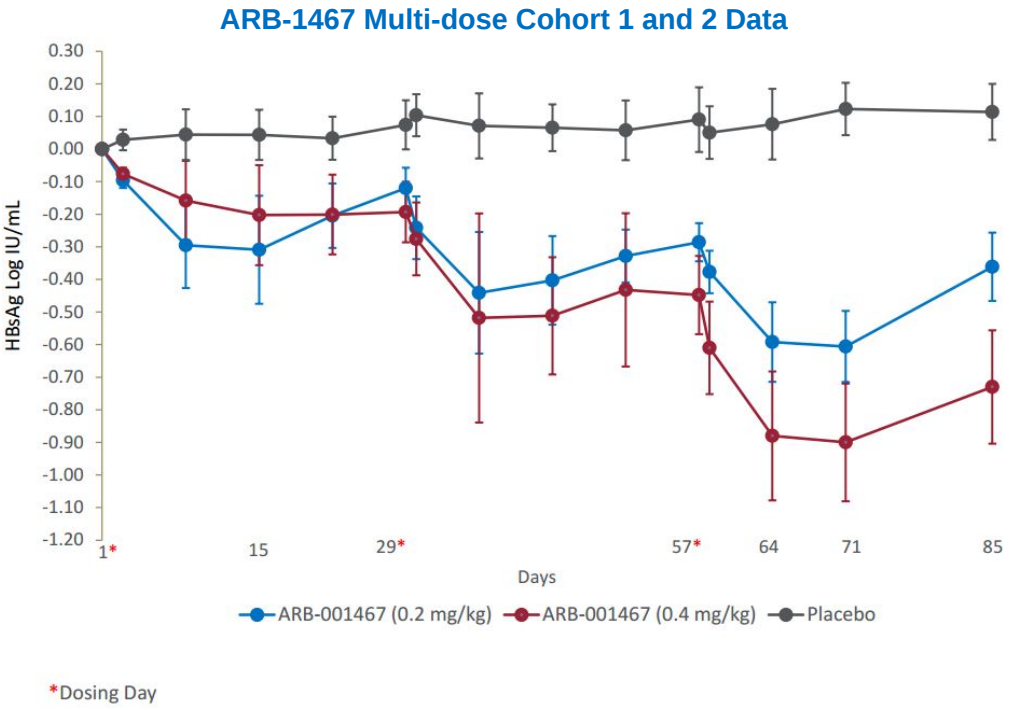
ARB-1467 was evaluated in a Phase I randomized, single-blind, placebo-controlled clinical study to assess the safety, tolerability and pharmacokinetics of intravenous administration of single ascending doses of the product in healthy adult subjects. Steroid premedication was added to the Phase I protocol and no dose limiting toxicities were seen through 0.4mg/kg, the highest dose tested in Phase I. Following the completion of the Phase I clinical trial, ARB-1467 was advanced to a Phase II clinical trial in chronically infected HBV patients.

The Phase II trial is a multi-dose study in chronic HBV patients who are also receiving nucleot(s)ide analog therapy. The trial initially consisted of three cohorts, with additional cohorts planned. Cohorts 1 to 3 enroll eight subjects; six receiving three monthly doses of ARB-1467, and two receiving placebo. The first two cohorts include HBeAg- patients, followed by a third cohort in HBeAg+ patients. ARB-1467 is administered at 0.2 mg/kg and 0.4 mg/kg in the HBeAg- cohorts (Cohorts 1 and 2), and at 0.4 mg/kg in the HBeAg+ cohort (Cohort 3). We have added a fourth cohort (Cohort 4) to evaluate bi-weekly multi-dosing of ARB-1467 in twelve HBeAg- patients.



ARB-1467 Phase II Clinical Design

We announced interim results from the Phase II trial based on single dose and multi-dose administration of ARB-1467 in Cohorts 1 and 2 in the second half of 2016, demonstrating significant, and step-wise, additive reductions in serum HBsAg levels. A large portion of the patients (3/5) treated with three monthly doses of 0.4 mg/kg ARB-1467 demonstrated HBsAg reductions of at least 1 log.



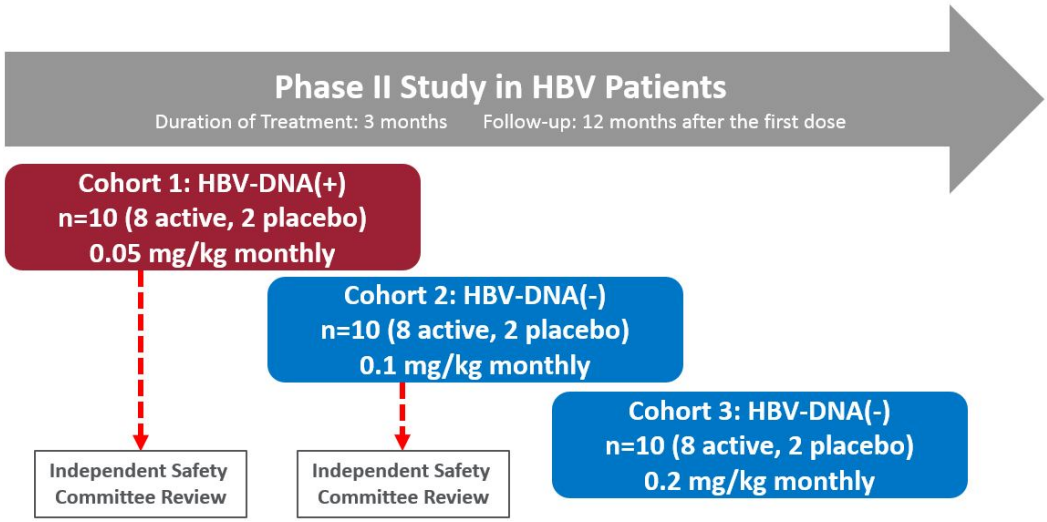
Treatment with ARB-1467 has been generally well tolerated in this study to date. The initiation of Cohorts 2 and 3, which both utilized the 0.4 mg/kg dose, occurred after an independent safety committee review of the previous cohort(s) safety data. Final data from Cohorts 1-3 is expected in the first half of 2017. In addition, we have added Cohort 4 to evaluate bi-weekly dosing or ARB-1467 and results are expected in the second half of 2017.

RNAi 2.0 (ARB-1740)

While we are focused on development of our lead HBV product candidates, we believe in continuous innovation and will incorporate technological and product design advancements that may result in an improvement in safety and/or efficacy. An example of this is our follow-on RNAi HBV candidate, ARB-1740. ARB-1740 is more potent than ARB-1467 in preclinical studies and has the potential to be effective at lower clinical doses than ARB-1467. ARB-1740 employs the same LNP formulation as ARB-1467 (with a different set of three RNAi triggers).

We presented ARB-1740 preclinical data at the 2016 American Association for the Study of Liver Diseases (AASLD) Liver meeting in November 2016. In our poster titled "Development of Second Generation RNA Interference Therapy for Hepatitis B Virus Infection", we showed that ARB-1740 (a pan-genotypic second-generation siRNA therapeutic) suppresses multiple elements of HBV including: HBsAg, HBeAg, DNA, core antigen, and all RNAs including the HBx transcript, as demonstrated in vivo. ARB-1740 also shows significant potency advantages compared to ARB-1467 as well as an extended duration of action. ARB-1740 complements standard-of-care NUC and inhibits NUC-resistant virus variants.

The Phase II trial is a multi-dose study in HBeAg- chronic HBV patients who are also receiving nucleot(s)ide analog therapy. The trial consists of three cohorts that enroll ten subjects; eight receiving three monthly doses of ARB-1740, and two receiving placebo. The first cohort includes HBV-DNA+ patients, followed by two cohorts in virally suppressed (HBV-DNA-) patients. ARB-1740 is administered at 0.05 mg/kg in Cohort 1, 0.1 mg/kg in Cohort 2, and 0.2 mg/kg in Cohort 3.



We have initiated a multi-dosing Phase II clinical study of ARB-1740 in chronically infected HBV patients, and plan to announce data from this study in the second half of 2017.

Core Protein/ Capsid Assembly Inhibitor (AB-423)

HBV core protein, or capsid, is required for viral replication and core protein may have additional roles in cccDNA function. Current nucleot(s)side analog therapy significantly reduces HBV DNA levels in the serum but HBV replication continues in the liver, thereby enabling HBV infection to persist. Effective therapy for patients requires new agents which will effectively block viral replication. We are developing core protein inhibitors (also known as capsid assembly inhibitors) as oral therapeutics for the treatment of chronic HBV infection. By inhibiting assembly of the viral capsid, the ability of the hepatitis B virus to replicate is impaired, resulting in reduced cccDNA levels.

We presented AB-423 preclinical data at the European Association of the Study of the Liver (EASL) in April 2016 and the AASLD meeting in November 2016 in an oral presentation titled "The HBV Capsid inhibitor AB-423 Exhibits a Dual Mode of Action and Displays Additive/Synergistic Effects in In Vitro Combination Studies". In our presentation we showed that AB-423 is a pan-genotypic, HBV selective agent with a dual mechanism of action. It inhibits pgRNA encapsidation resulting in potent and highly selective inhibition of HBV replication. AB-423 also inhibits cccDNA formation via inhibition of the capsid uncoating step. Combination of AB-423 with ARB-1467 results in additive or synergistic activity compared to each agent alone. Furthermore, in an oral presentation titled "Exploring Combination Therapy for Curing HBV: Preclinical Studies with Capsid Inhibitor AB-423 and a siRNA Agent, ARB-1740", we demonstrate that a combination of AB-423 with ARB-1740 shows synergistic activity against HBV rcDNA in vitro, as well as inhibition of HBV DNA and serum HBsAg in in vivo models. Triple combinations consisting of AB-423+ARB-1740 with ETV or PegIFN provide the greatest reduction in serum HBV DNA. ARB-1740 further increases host response when added to AB-423+PegIFN, and supports the hypothesis that HBV antigen removal may promote immune recognition and viral clearance.

We are advancing the development of AB-423 starting with a Phase I clinical trial in healthy volunteers.

In addition to AB-423, our core protein/capsid assembly inhibitor discovery effort is active and ongoing and has already generated promising back-up compounds.

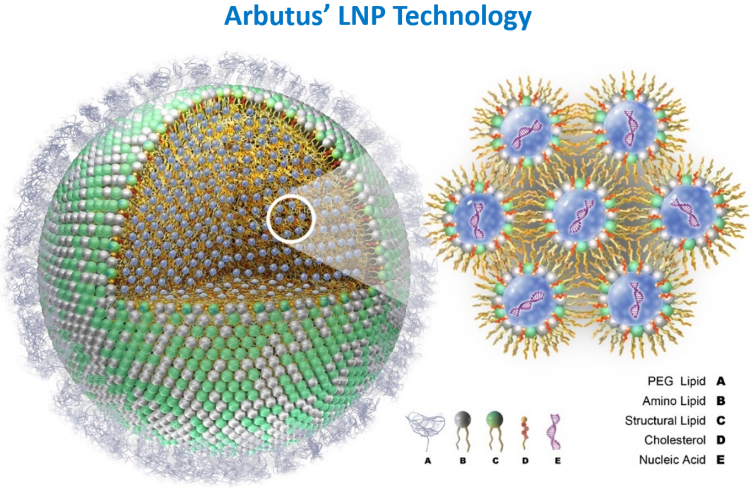
Research Programs

In addition to our clinical candidates, we have a number of research programs aimed at discovery and development of proprietary HBV candidates with different and complementary mechanisms of action. These programs include oral surface antigen (HBsAg) inhibitors, cccDNA targeting agents and immunomodulators.

Our Proprietary Delivery Technology

Development of RNAi therapeutic products is currently limited by the instability of the RNAi trigger molecules in the bloodstream and the inability of these molecules to access target cells or tissues following administration. Delivery technology is necessary to protect these drugs in the bloodstream to allow efficient delivery and cellular uptake by the target cells. Arbutus has developed a proprietary delivery platform called Lipid Nanoparticle (LNP). The broad applicability of this platform to RNAi development has established Arbutus as a leader in this new area of innovative medicine.

Our proprietary LNP delivery technology allows for the successful encapsulation of RNAi trigger molecules in LNP administered intravenously, which travel through the bloodstream to target tissues or disease sites. LNPs are designed to protect the triggers, and stay in the circulation long enough to accumulate at disease sites, such as the liver or cancerous tumors. LNPs are then taken up into the target cells by a process called endocytosis. Subsequent activation by the changing environment inside the cell causes the LNP to release the trigger molecules, which can then successfully mediate RNAi.



Ongoing Advancements in LNP Technology

Our LNP technology represents the most widely adopted delivery technology in RNAi, which has enabled several clinical trials and has been administered to hundreds of human subjects. We are the leaders in LNP delivery and hold a dominant intellectual property position in this field. We have applied our extensive technical expertise and clinical experience gained from our LNP-based programs to further advance our platform technology and its broad application to mRNA delivery. We presented *in vivo at* the 32nd Annual Meeting of the Japan Society of Drug Delivery System in June 2016, showing potent LNP-enabled delivery of mRNA with very high and persistent expression levels.

In March 2017, we signed a licensing agreement with Alexion (see Strategic Alliances, Licensing Agreements, and Research Collaborations) and continue to explore opportunities to generate further value from our LNP platform technology, which is well suited to delivery therapies based on RNAi, mRNA, and gene editing constructs. We have also made progress in developing a proprietary N-Acetylgalactosamine (GalNAc) conjugate technology to enable subcutaneous delivery of an RNAi therapeutic targeting hepatitis B surface antigen and/or other HBV targets.

Suspended Non-HBV RNAi Assets

Our intent is to focus our efforts on discovering, developing and commercializing a cure for patients suffering from chronic HBV infection. As such, we have suspended further development of our non-HBV assets and are exploring different strategic options to maximize the value of these assets. Our non-HBV assets include our LNP-based product candidates TKM-PLK for oncology, TKM-Ebola and TKM-Marburg for hemorrhagic fever viruses, TKM-HTG for metabolic disorders, and TKM-ADLH for severe alcohol use disorder.

Oncology (TKM-PLK1)

Our oncology product platform, TKM-PLK1, targets PLK1, a protein involved in tumor cell proliferation and a validated oncology target. Inhibition of PLK1 expression prevents the tumor cell from completing cell division, resulting in cell cycle arrest and death of the cancer cell. Evidence that patients with elevated levels of PLK1 in their tumors exhibit poorer prognosis and survival rates has been documented in the medical literature. TKM-PLK1 was being evaluated in the following oncology indications where there are limited or ineffective therapies available: Gastrointestinal Neuroendocrine Tumors (GI-NET), Adrenocortical Carcinoma (ACC) and Hepatocellular Carcinoma (HCC). This program is available for partnership to enable further development.

TKM-PLK1: GI-NET and ACC

GI-NET is the gastrointestinal subset of neuroendocrine tumors with an estimated U.S. prevalence of 55,000 individuals and the U.S. National Cancer Institute indicates there are approximately 500 patients in the U.S. with ACC. The Phase I/II clinical trial with TKM-PLK1 enrolled patients with advanced GI-NET or ACC. This multi-center, single arm, open label study was designed to measure efficacy using RECIST criteria for GI-NET patients and ACC patients as well as evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1 in a population of 63 subjects with advanced solid tumors, including 15 subjects with GI-NET. TKM-PLK1 was administered weekly with each four-week cycle consisting of three once-weekly doses followed by a rest week. In the GI-NET population, one subject, a "remarkable responder" had a maximal 61.1% decrease in target tumor at cycle 2. This subject remained on-study for 10 cycles and the partial tumor response (PR) was stable throughout this period. Twelve of 13 evaluable subjects had a best response of stable disease (SD) or PR. Duration of SD/PR ranged from two to 14 cycles. In the ACC population one subject, a "remarkable responder" had a maximal 48.7% decrease in target tumor at cycle 14. After 18 cycles, the residual tumor was resected and histopathology showed near-complete necrosis, at which time the subject discontinued the study. Five of eight evaluable subjects had a best response of SD or PR. Duration of SD/PR ranged from two to 18 cycles. Therapy with TKM-PLK1 was received for up to 18 months and was generally well tolerated by the majority of subjects. The TKM-PLK1 GI-NET/ACC trial has concluded.

TKM-PLK1: HCC

In June 2014, we initiated another Phase I/II clinical trial with TKM-PLK1, enrolling patients with advanced HCC. Patient dosing has commenced and we have completed the dose escalation portion of this trial. This Phase I/II clinical trial is a multi-center, single arm, open label dose escalation study designed to evaluate the safety, tolerability and pharmacokinetics of TKM-PLK1 as well as determine the maximum tolerated dose in patients with advanced inoperable HCC. It includes a preliminary assessment of the anti-tumor activity of TKM-PLK1 in this patient population. In August 2015 we announced initiation of patient dosing in the expansion cohort of the clinical trial at multiple sites in Canada, the United States and Asia, and have since completed this study. Topline results from this study show that TKM-PLK1 was well-tolerated at a dose of 0.6 mg/kg, 51% of subjects showed overall stable disease (SD) according to RECIST criteria, 22% of subjects showed an overall partial response (PR) according to Choi response criteria, and tumor density was reduced by up to 59%.

Other Infectious Diseases (TKM-Ebola and TKM-Marburg)

We have suspended further development of our RNAi product candidates targeting filoviruses Ebola and Marburg. In December 2014, the U.S. Congress amended the FDA Priority Review Voucher (PRV) Program Act to add filoviruses as a candidate for a PRV. These programs are available for partnership to enable further development.

TKM-Ebola-Kikwit has been developed under a $140 million contract with the U.S. Department of Defense (DoD) awarded in July 2010. Given the unclear development path for TKM-Ebola, development activities have been suspended and the contract with the DoD has been terminated. TKM-Ebola-Kikwit completed the single ascending dose portion of the Phase I clinical trial in healthy human volunteers. Results demonstrated that administration of the TKM-Ebola-Kikwit therapeutic, in the absence of any steroid containing pre-medication, was well-tolerated at a dose level of 0.3 mg/kg, the maximum tolerated dose. We have several publications related to our Ebola and Marburg RNAi therapeutic candidates. Efficacy results obtained with TKM-Ebola-Kikwit and TKM-Ebola-Makona demonstrated up to 100% protection from an otherwise lethal dose of the virus. We have also published data demonstrating complete protection of non-human primates against the lethal Marburg-Angola strain, (Thi EP., *et al.*; Science Translational Medicine, Aug 2014).

Metabolic Disorders (TKM-HTG)

TKM-HTG is a multi-component RNAi therapeutic that simultaneously targets a combination of genes expressed in the liver, which are known to play a significant role in triglyceride metabolism. High triglyceride levels are medically linked to increased risk of cardiovascular disease, fatty liver disease, insulin resistance and pancreatitis. Approximately one million adults in the US and 18 million worldwide suffer from severe HTG. (NHANES 2003-2004 data). Another patient group affected by HTG are those with Familial Chylomicronemia Syndrome (FCS), which is a very rare hereditary condition affecting an estimated 1:1,000,000 people (www.fcs.raredr.com). Additionally, 35% of patients with Type 2 Diabetes (T2D) suffer from mixed hyperlipidemia which is a combination of elevated cholesterol and high triglycerides. With underlying T2D, these patients are at considerable risk from cardiovascular disease. This program is available for partnership to enable further development.

Alcohol Use Disorder (TKM-ALDH)

TKM-ALDH is designed to knockdown or silence aldehyde dehydrogenase (ALDH) to induce long term acute sensitivity to ethanol, for use in severe alcohol use disorder. Aldehyde dehydrogenase is a key enzyme in ethanol metabolism. Inhibition of ALDH activity, through the silencing of ALDH, results in the build-up of acetaldehyde leading to adverse physiological effects. Human proof of concept for ALDH inhibition already exists in the form of the approved drug disulfiram. However, disulfiram's efficacy is compromised by poor compliance because it has to be taken daily. We believe TKM-ALDH will induce prolonged ethanol sensitivity that will enable it to overcome the compliance limitations associated with daily dosing. This program is available for partnership to enable further development.

Partner Programs

Patisiran (ALN-TTR02)

Alnylam Pharmaceuticals, Inc., or Alnylam, has a license to use our intellectual property to develop and commercialize products and may only grant access to our LNP technology to its partners if it is part of a product sublicense. Alnylam's license rights are limited to patents that we have filed, or that claim priority to a patent that was filed, before April 15, 2010. Alnylam's patisiran (ALN-TTR02) program represents the most clinically advanced application of our LNP delivery technology, and results demonstrate that multi-dosing with our LNP has been well-tolerated with treatments out to 25 months.

Patisiran is Alnylam`s most advanced investigational RNAi therapeutic in development and is undergoing evaluation in an ongoing APOLLO Phase III clinical trial, which initiated in November 2013. Patisiran is an RNAi therapeutic targeting transthyretin (TTR) for the treatment of TTR-mediated amyloidosis (ATTR) in patients with FAP. In September 2015, Alnylam reported evidence of reduced pathogenic, misfolded TTR monomers and oligomers in TTR-mediated amyloidosis patients with FAP, and in November 2015 it reported that patisiran demonstrates continued evidence for potential halting of neuropathy progression and improvement in nerve fiber density in patients with FAP.

Top-line data from the APOLLO clinical trial are expected in mid-2017. Assuming a positive outcome, new drug application (NDA) filing for this program and marketing authorization application (MAA) are expected by the end of 2017. We are entitled to low to mid-single-digit royalty payments escalating based on sales performance as Alnylam's LNP-enabled products are commercialized.

Marqibo®

Marqibo®, originally developed by Arbutus, is a novel, sphingomyelin/cholesterol liposome-encapsulated formulation of the FDA-approved anticancer drug vincristine. Marqibo's approved indication is for the treatment of adult patients with Philadelphia chromosome-negative acute lymphoblastic leukemia (Ph-ALL) in second or greater relapse or whose disease has progressed following two or more lines of anti-leukemia therapy. Our licensee, Spectrum Pharmaceuticals, Inc. (Spectrum), launched Marqibo through its existing hematology sales force in the United States. Spectrum has ongoing trials evaluating Marqibo in three additional indications, which are: first line use in patients with Philadelphia Negative Acute Lymphoblastic Leukemia (Ph-ALL), Pediatric ALL and Non-Hodgkin's lymphoma. We are receiving mid-single digit royalty payments based on Marqibo's commercial sales.

DCR-PH1

In November 2014, we signed a licensing and collaboration agreement with Dicerna Pharmaceuticals, Inc. to utilize our LNP delivery technology exclusively in Dicerna's primary hyperoxaluria type 1 (DCR-PH1) development program. Data from the DCR-PH1-102 clinical trial, in which 21 subjects were randomized to receive DCR-PH1 at doses of 0.005, 0.015 and 0.05 mg/kg or placebo, showed an increase in urine glycolate levels, a biomarker of DCR-PH1 treatment activity, in the top two DCR-PH1 dosing groups. In September 2016, Dicerna announced the discontinuation of its DCR-PH1 program. We terminated the agreement with Dicerna in November 2016. More information about our licensing agreement with Dicerna can be found under the “Strategic Alliances, Licensing Agreements, and Research Collaborations” section of this report.

Strategic Alliances, Licensing Agreements, and Research Collaborations

Alexion Pharmaceuticals, Inc.

On March 16, 2017, we signed an agreement with Alexion Pharmaceuticals, Inc. (Nasdaq:ALXN) to license our LNP technology for exclusive use in one of Alexion’s rare disease programs. Alexion will use our LNP to deliver messenger RNA (mRNA). Under the terms of the license agreement, Alexion will pay Arbutus $7.5 million upfront, and payments of up to $75 million for achievement of development, regulatory, and commercial milestones, as well as single digit royalties. In addition, Arbutus will conduct technology development and provide manufacturing and regulatory support for the rapid advancement of Alexion’s mRNA product candidate.

Acuitas Therapeutics Inc.

Consistent with the terms of the settlement agreement signed in November 2012, we finalized and entered a cross-license agreement with Acuitas Therapeutics Inc., or Acuitas in December 2013. The terms of the cross-license agreement provide Acuitas with access to certain of our earlier IP generated prior to mid-April 2010 in the fields of gene replacement therapy and antisense. Acuitas may only grant access to our LNP technology to its partners if it is part of a product sublicense. At the same time, the terms provide us with certain access to Acuitas’ technology and licenses in the RNAi field, along with a percentage of each milestone and royalty payment with respect to certain products. Acuitas has agreed that it will not compete in the RNAi field for a period of five years, ending in November 2017. On August 29, 2016, Arbutus provided Acuitas with notice that Arbutus considered Acuitas to be in material breach of the cross-license agreement. On February 8, 2017, the Supreme Court of British Columbia granted our request for a pre-trial injunction against Acuitas, preventing Acuitas from entering into any new sublicensing agreements. Please refer to "Item 3. Legal Proceedings" for additional information.

Alnylam Pharmaceuticals, Inc.

Alnylam has a license to use our IP to develop and commercialize products and may only grant access to our LNP technology to its partners if it is part of a product sublicense. Alnylam’s license rights are limited to patents that we have filed, or that claim priority to a patent that was filed, before April 15, 2010. Alnylam does not have rights to our patents filed after April 15, 2010 unless they claim priority to a patent filed before that date. Alnylam will pay low single digit royalties as Alnylam’s LNP-enabled products are commercialized. Please refer to "Item 3. Legal Proceedings" for additional information.

Merck & Co., Inc. and Alnylam License Agreement

As a result of the settlement between Protiva Biotherapeutics, Inc. (Protiva), and Merck & Co., Inc. in 2008, we acquired a non-exclusive royalty-bearing world-wide license agreement with Merck. Under the license, Merck will pay up to $17 million in milestones for each product they develop covered by our IP, except for the first product for which Merck will pay up to $15 million in milestones, and will pay royalties on product sales. Merck’s license rights are limited to patents that Protiva filed, or that claim priority to one of Protiva’s patents that was filed, before October 9, 2008. Merck does not have rights to Protiva patents filed after October 9, 2008 unless they claim priority to a patent filed before that date. On March 6, 2014, Alnylam announced that they acquired all RNAi related assets and licenses from Merck, which included our license agreement.

Dicerna Pharmaceuticals, Inc.

In November 2014, we signed a licensing agreement and a development and supply agreement with Dicerna to license our third generation LNP delivery technology for exclusive use in Dicerna's PH1 development program (DCR-PH1). Dicerna's product incorporates its DsiRNA molecule, for the treatment of PH1, a rare, inherited liver disorder that often results in kidney failure and for which there are no approved therapies. Under the agreements, Dicerna paid Arbutus $2.5 million upfront with $22 million in aggregate in potential development milestones, plus a mid-single-digit royalty on future PH1 sales. This partnership also included a supply agreement under which we would provide clinical drug supply and regulatory support for the

rapid advancement of this product candidate. Dicerna announced the discontinuation of its DCR-PH1 program in September 2016, and we terminated the agreement with Dicerna in November 2016.

Monsanto Company

In January 2014, we signed an Option Agreement and a Service Agreement with Monsanto Company, or Monsanto, and granted Monsanto an option to obtain a license to use our proprietary LNP delivery technology. Following the completion of the Phase A extension period in October 2015, no further research activities were conducted under the arrangement, as Monsanto did not elect to proceed to Phase B of the research plan. On March 4, 2016, Monsanto exercised its option to acquire 100% of the outstanding shares of Protiva Agricultural Development Company Inc., or PADCo, and PADCo is no longer an indirect wholly owned subsidiary of us. In connection with Monsanto's exercise of its option, on March 4, 2016, we entered into an amended Option Agreement. We also entered into an amended Service Agreement on March 4, 2016 to give effect to the grant back to Protiva of new intellectual property created by Monsanto in connection with the exercise of its option. In addition, we entered into an amended License and Services Agreement to recognize Monsanto's early exercise of option before Protiva's completion of Phases B and C, and introduce a new Technology Transfer Completion Criteria through the amended Option Agreement.

Spectrum Pharmaceuticals, Inc.

In September 2013, we announced that our licensee, Spectrum, had launched Marqibo® through its existing hematology sales force in the United States. Since then commercial sales have occurred. Arbutus is receiving mid-single digit royalty payments based on Marqibo®'s commercial sales. Marqibo®, which is a novel sphingomyelin/cholesterol liposome-encapsulated formulation of the FDA-approved anticancer drug vincristine, was originally developed by Arbutus. We out-licensed the product to Talon Therapeutics in 2006, and in July 2013, Talon was acquired by Spectrum. Marqibo®'s approved indication is for the treatment of adult patients with Philadelphia chromosome-negative acute lymphoblastic leukemia (Ph-ALL) in second or greater relapse or whose disease has progressed following two or more lines of anti-leukemia therapy. Spectrum has ongoing trials evaluating Marqibo® in three additional indications, which are: first line use in patients with Ph-ALL, Pediatric ALL and Non-Hodgkin's lymphoma.

Marina Biotech, Inc. /Arcturus Therapeutics, Inc.

In November 2012, we disclosed that we had obtained a worldwide, non-exclusive license to a novel RNAi trigger technology called Unlocked Nucleobase Analog (UNA) from Marina Biotech Inc., or Marina, for the development of RNAi therapeutics. UNAs can be incorporated into RNAi drugs and have the potential to improve them by increasing their stability and reducing off-target effects. In August 2013, Marina assigned its UNA technology to Arcturus Therapeutics, Inc., or Arcturus, and the UNA license agreement between us and Marina was assigned to Arcturus. The terms of the license are otherwise unchanged.

U.S. National Institutes of Health

On October 13, 2010 we announced that together with collaborators at the University of Texas Medical Branch (UTMB), we were awarded a new NIH grant, worth $2.4 million, to support research to develop RNAi therapeutics to treat Ebola and Marburg hemorrhagic fever viral infections using our LNP delivery technology. In February 2014, we along with UTMB and other collaborators were awarded additional funding of $3.4 million over five years from the NIH in support of this research.

Bristol-Myers Squibb Company

In May 2010, we announced a research collaboration with Bristol-Myers Squibb Company, BMS. Under this agreement, BMS conducted preclinical work to validate the function of certain genes and shared the data with us to potentially develop RNAi therapeutic drugs against therapeutic targets of interest. We formulated the required RNAi trigger molecules enabled by our LNP technology to silence target genes of interest. BMS paid us $3.0 million concurrent with the signing of the agreement. We provided a predetermined number of LNP batches over the four-year agreement. In May 2011, we announced a further expansion of the collaboration to include broader applications of our LNP technology and additional target validation work. In May 2014, the collaboration expired and all parties' obligations ended.

Halo-Bio RNAi Therapeutics, Inc.

In August 2011, we entered into a license and collaboration agreement with Halo-Bio RNAi Therapeutics, Inc., or Halo-Bio. Under the agreement, Halo-Bio granted to us an exclusive license to its multivalent ribonucleic acid MV-RNA

technology. The agreement was amended on August 8, 2012, to adjust future license fees and other contingent payments. To date, we have recorded $0.5 million in fees under our license from Halo-Bio. We terminated the agreement with Halo-Bio on July 31, 2013. There are no further payments due or contingently payable to Halo-Bio.

Aradigm Corporation

In December 2004, we entered into a licensing agreement with Aradigm Corporation, or Aradigm, under which Aradigm exclusively licensed certain of our liposomal intellectual property for the pulmonary delivery of Ciprofloxacin. As amended, this agreement calls for milestone payments totalling $4.5 and $4.75 million, respectively, for the first two disease indications pursued by Aradigm using our technology, and for low- to mid-single-digit royalties on sales revenue from products using our technology. We terminated the Aradigm license agreement in May 2013.

University of British Columbia

Certain early work on lipid nanoparticle delivery systems and related inventions was undertaken at the University of British Columbia, or UBC. These inventions are licensed to us by UBC under a license agreement, initially entered in 1998 as amended in 2001, 2006 and 2007. We have granted sublicenses under the UBC license to Alnylam as well as to Spectrum (Talon Therapeutics Inc., acquisition). Alnylam has in turn sublicensed back to us under the licensed UBC patents. In mid-2009, we and our subsidiary Protiva entered into a supplemental agreement with UBC, Alnylam and Acuitas Technologies, Inc., in relation to a separate research collaboration to be conducted among UBC, Alnylam and Acuitas to which we have license rights. The settlement agreement signed in late 2012 to resolve the litigation among Alnylam, Acuitas, Arbutus and Protiva provided for the effective termination of all obligations under such supplemental agreement as between and among all litigants.

On November 10, 2014, the University of British Columbia filed a demand for arbitration against Arbutus Biopharma Corp., BCICAC File No.: DCA-1623. We received UBC’s Statement of Claims on January 16, 2015. In its Statement of Claims, UBC alleges that it is entitled to $3.5 million in allegedly unpaid royalties based on publicly available information, and an unspecified amount based on non-public information. UBC also seeks interest and costs, including legal fees. Arbutus filed its Statement of Defense to UBC’s Statement of Claims on April 27, 2015, denying that UBC is entitled to any unpaid royalties. Arbutus also filed a Counterclaim involving a patent application that Arbutus alleges UBC wrongly licensed to a third party rather than to Arbutus. Arbutus seeks any license payments for said application, and an exclusive worldwide license to said application. The proceeding has been bifurcated into phases, beginning with a liability phase, addressing UBC’s Claims and Arbutus’ Counterclaim, that is presently set for hearing from June 19-30, 2017. Please refer to "Item 3. Legal Proceedings" for additional information.

Cytos Biotechnology Ltd

On December 30, 2014, Arbutus Inc., our wholly owned subsidiary, entered into an exclusive, worldwide, sub-licensable (subject to certain restrictions with respect to licensed viral infections other than hepatitis) license to six different series of compounds from Cytos Biotechnology Ltd., or Cytos. The licensed compounds included Qbeta-derived virus-like particles that encapsulate TLR9, TLR7 or RIG-I agonists that may or may not be conjugated with antigens from the hepatitis virus or other licensed viruses. In partial consideration for this license, we would pay Cytos up to a total of $67 million for each of the six licensed compound series upon the achievement of specified development and regulatory milestones; for hepatitis and each additional licensed viral infection, up to a total of $110 million upon the achievement of specified sales performance milestones; and tiered royalty payments in the high-single to low-double digits, based upon the proportionate net sales of licensed products in any commercialized combination. In August 2016, we discontinued the TLR9 development program based on significant levels of research and analysis, and provided notice of termination of the license agreement with Cytos. This termination became effective in November 2016.

The Baruch S. Blumberg Institute and Drexel University

In February 2014, Arbutus Inc., our wholly owned subsidiary, entered into a license agreement with The Blumberg S. Blumberg Institute, or Blumberg, and Drexel University, or Drexel, that granted an exclusive (except as to certain know-how and subject to retained non-commercial research rights), worldwide, sub-licensable license to three different compound series: cccDNA inhibitors, capsid assembly inhibitors and HCC inhibitors.

In partial consideration for this license, Arbutus Inc. paid a license initiation fee of $150,000 and issued warrants to Blumberg and Drexel. No warrants were outstanding as at the date Arbutus merged with Arbutus Inc. Under this license agreement, Arbutus Inc. also agreed to pay up to $3.5 million in development and regulatory milestones per licensed compound series, up to $92.5 million in sales performance milestones per licensed product, and royalties in the mid-single digits based

upon the proportionate net sales of licensed products in any commercialized combination. We are obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from the sub-licensees, subject to customary exclusions.

In November 2014, Arbutus Inc. entered into an additional license agreement with Blumberg and Drexel pursuant to which it received an exclusive (subject to retained non-commercial research rights), worldwide, sub-licensable license under specified patents and know-how controlled by Blumberg and Drexel covering epigenetic modifiers of cccDNA and STING agonists. In consideration for these exclusive licenses, Arbutus Inc. made an upfront payment of $50,000. Under this agreement, we will be required to pay up to $1.0 million for each licensed product upon the achievement of a specified regulatory milestone and a low single digit royalty, based upon the proportionate net sales of compounds covered by this intellectual property in any commercialized combination. We are also obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from its sub-licensees, subject to exclusions.

License Agreements between Enantigen and Blumberg and Drexel

In October 2014, Arbutus Inc., our wholly owned subsidiary, acquired all of the outstanding shares of Enantigen Therapeutics, Inc., or Enantigen, pursuant to a stock purchase agreement. Through this transaction, Arbutus Inc. acquired a HBV surface antigen secretion inhibitor program and a capsid assembly inhibitor program, each of which are now assets of Arbutus, following our merger with Arbutus Inc.

Under the stock purchase agreement, we agreed to pay up to a total of $21.0 million to Enantigen's selling stockholders upon the achievement of specified development and regulatory milestones, for the first two products that contain either a capsid compound, or a HBV surface antigen compound that is covered by a patent acquired under this agreement; or a capsid compound from an agreed upon list of compounds. The amount paid could be up to a total of $102.5 million in sales performance milestones in connection with the sale of the first commercialized product by us for the treatment of HBV, regardless of whether such product is based upon assets acquired under this agreement; and low single digit royalty on net sales of such first commercialized HBV product, up to a maximum royalty payment of $1.0 million that, if paid, would be offset against our milestone payment obligations.

Under the stock purchase agreement, we also agreed that Enantigen would fulfill its obligations as they relate to the three patent license agreements with Blumberg and Drexel. Pursuant to each patent license agreement, Enantigen is obligated to pay Blumberg and Drexel up to approximately $500,000 in development and regulatory milestones per licensed product, royalties in the low single digits, and a percentage of revenue it receives from its sub-licensees.

Research Collaboration and Funding Agreement with Blumberg

In October 2014, Arbutus Inc. entered into a research collaboration and funding agreement with Blumberg under which the Company will provide $1,000,000 per year of research funding for three years, renewable at the Company's option for an additional three years, for Blumberg to conduct research projects in HBV and liver cancer pursuant to a research plan to be agreed upon by the parties. Blumberg has exclusivity obligations to Arbutus with respect to HBV research funded under the agreement. In addition, the Company has the right to match any third party offer to fund HBV research that falls outside the scope of the research being funded under the agreement. Blumberg has granted the Company the right to obtain an exclusive, royalty bearing, worldwide license to any intellectual property generated by any funded research project. If the Company elects to exercise its right to obtain such a license, the Company will have a specified period of time to negotiate and enter into a mutually agreeable license agreement with Blumberg. This license agreement will include the following pre-negotiated upfront, milestone and royalty payments: an upfront payment in the amount of $100,000; up to $8,100,000 upon the achievement of specified development and regulatory milestones; up to $92,500,000 upon the achievement of specified commercialization milestones; and royalties at a low single to mid-single digit rates based upon the proportionate net sales of licensed products from any commercialized combination.

On June 5, 2016, the Company and Blumberg entered into an amended and restated research collaboration and funding agreement, primarily to: (i) increase the annual funding amount to Blumberg from $1,000,000 to $1,100,000; (ii) extend the initial term through to October 29, 2018; (iii) provide an option for the Company to extend the term past October 29, 2018 for two additional one year terms; and (iv) expand our exclusive license under the Agreement to include the sole and exclusive right to obtain and exclusive, royalty-bearing, worldwide and all-fields license under Blumberg's rights in certain other inventions described in the agreement.

NeuroVive Pharmaceutical AB

In September 2014, Arbutus Inc., our wholly owned subsidiary, entered into a license agreement with NeuroVive that granted them an exclusive, worldwide, sub-licensable license to develop, manufacture and commercialize, for the treatment of HBV, oral dosage form sanglifehrin based cyclophilin inhibitors (including OCB-030).

In 2015, we discontinued the OCB-030 development program based on significant research and analysis. In July 2016, we provided NeuroVive with a notice of termination of the license agreement. The parties agreed to terminate the agreement in October 2016.

Patents and Proprietary Rights

Our commercial success depends in part on our ability to obtain and maintain proprietary protection for our drug candidates, novel discoveries, product development technologies and other know-how, to operate without infringing on the proprietary rights of others and to prevent others from infringing our proprietary rights. Our policy is to seek to protect our proprietary position by, among other methods, filing or in licensing U.S. and foreign patents and patent applications related to our proprietary technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trademarks, trade secrets, know how, continuing technological innovation and potential in licensing opportunities to develop and maintain our proprietary position.

In addition to our proprietary expertise, we own a portfolio of patents and patent applications directed to HBV cccDNA formation inhibitors, HBV core/capsid protein assembly inhibitors, HBV surface antigens secretion inhibitors, HBV cccDNA epigenetic modifiers, STING agonists, LNP inventions, LNP compositions for delivering nucleic acids such as mRNA and siRNA, the formulation and manufacture of LNP-based pharmaceuticals, chemical modification of RNAi molecules, and RNAi drugs and processes directed at particular disease indications. A large number of patent applications filed with the US and European Patent Offices have been granted. In the US our patents might be challenged by interference or opposition proceedings. In Europe, upon grant, a period of nine months is allowed for notification of opposition to such granted patents. If our patents are subjected to interference or opposition proceedings, we would incur significant costs to defend them. Further, our failure to prevail in any such proceedings could limit the patent protection available to our therapeutic HBV programs or RNAi platform, including our product candidates.

We have a portfolio of approximately 121 patent families, in the U.S. and abroad, that are directed to our therapeutic HBV product candidates and various aspects of LNPs and LNP formulations. The portfolio includes over 100 issued patents throughout the world, and an extensive portfolio of pending patent applications, including the following patents and applications in the United States and Europe (1):

Subject Matter	Status	Expiration Date*
LNP Compositions and Methods of Use (siRNA)	U.S. Pat. No. 7,982,027; applications pending in other jurisdictions	2024
LNP Compositions (interferingRNA)	U.S. Pat. No. 7,799,565; patents issued in other jurisdictions	2025
LNP Compositions (Nucleic Acid)	U.S. Pat. Nos. 8,058,069; 8,492,359 and 8,822,668; applications pending in other jurisdictions	2029
LNP Compositions and Methods of Use (PLK-1)	U.S. Pat. No.8,283,333; applications pending in other jurisdictions	2030
LNP Compositions (Nucleic Acid)	U.S. Pat. No. 9,006,417	2031
LNP Manufacturing Process	U.S. Pat. Nos. 7,901,708 and 8,329,070; European Pat. Nos. 1519714 and 2338478; application pending in the U.S.	2023
LNP Manufacturing Process	U.S. Pat. No. 9,005,654; application pending in Europe	2026
Lipid Compositions	U.S. Pat. No. 7,745,651; European Pat. No. 1781593; application pending in the U.S.	2025
Lipid Compositions	U.S. Pat. Nos. 7,803,397 and 8,936,942; European Pat. No. 1664316	2024
Modified siRNA Compositions	U.S. Pat. Nos. 8,101,741, 8,188,263 and 9,074,208; applications pending in other jurisdictions	2026
Modified siRNA Compositions	U.S. Pat. No. 7,915,399	2027
siRNA and LNP Compositions (Ebola Virus)	U.S. Pat. No. 7,838,658	2026
siRNA and LNP Compositions and Methods of Treatment (Ebola Virus)	U.S. Pat. No. 8,716,464	2030
siRNA and LNP Compositions (PLK1)	U.S. Pat. No. 9,006,191; European Pat. No. 2238251	2028
Immunostimulatory Compositions, Methods of Use and Production	U.S. Pat. No. 8,691,209; European Pat. No. 1450856	2022
siRNA and LNP Compositions (HBV)	Patent applications pending in U.S. and other jurisdictions	2035
HBV Capsid Assembly Inhibitor Compositions and Methods of Treatment	Patent applications pending in U.S. and other jurisdictions	2032
Non-Liposomal Systems For Nucleic Acid Delivery	U.S. Pat. No. 9,518,272	2031
Lipid Compositions For Nucleic Acid Delivery	U.S. Pat. No. 9,504,651	2023

(1) Patent information current as of February 7, 2017.

* Once issued, the term of a US patent first filed after mid-1995 generally extends until the 20th anniversary of the filing date of the first non-provisional application to which such patent claims priority. It is important to note, however, that the United States Patent & Trademark Office, or USPTO, sometimes requires the filing of a Terminal Disclaimer during prosecution, which may shorten the term of the patent. On the other hand, certain patent term adjustments may be available based on USPTO delays during prosecution. Similarly, in the pharmaceutical area, certain patent term extensions may be available based on the history of the drug in clinical trials. We cannot predict whether or not any such adjustments or extensions will be available or the length of any such adjustments or extensions.

Scientific Advisers

We seek advice from our scientific advisory board, which consists of a number of leading scientists and physicians, on scientific and medical matters. The current members of our scientific advisory board are:

Name	Position(s)/Institutional Affiliation(S)
Adrian Di Bisceglie, MD	Professor of Internal Medicine and Chairman of the Department of Medicine at St Louis University , St Louis University School of Medicine, Chief of Hepatology
Charlie Rice, Ph.D.	Maurice and Corinne Greenberg Professor in Virology, Rockefeller University
Scott Biller, Ph.D.	Chief Scientific Officer at Agios Pharmaceuticals
Ulrike Protzer, Ph.D.	Director, Institute of Virology, Technische Universität München / Helmholtz Zentrum München - German Center for Environmental Health
Fabien Zoulim, MD, Ph.D.	Professor of Medicine, Lyon University, Head of Hepatology Department, Hospices Civils de Lyon
Kyong-Mi Chang	Associate Professor of Medicine, Division of Gastroenterology, University of Pennsylvania Perelman School of Medicine

Employees

At December 31, 2016, Arbutus had 122 employees, 90 of whom were engaged in research and development. None of our employees are represented by a labor union or covered by a collective bargaining agreement, nor have we experienced any work stoppages. We believe that relations with our employees are good.

Corporate information

Arbutus Biopharma Corporation (“Arbutus”, “we”, “us”, and “our”) is a publicly traded industry-leading therapeutic solutions company focused on discovering, developing and commercializing a cure for patients suffering from chronic hepatitis HBV infection. Effective July 31, 2015, our corporate name changed from Tekmira Pharmaceuticals Corporation to Arbutus Biopharma Corporation. Also effective July 31, 2015, the corporate name of our wholly owned subsidiary, OnCore Biopharma, Inc. changed to Arbutus Biopharma, Inc. (“Arbutus Inc.”). We have two wholly owned subsidiaries: Arbutus Inc. and Protiva Biotherapeutics Inc. (“Protiva”). Unless stated otherwise or the context otherwise requires, references herein to “Arbutus”, “we”, “us” and “our” refer to Arbutus Biopharma Corporation, and, unless the context requires otherwise, one or more subsidiaries through which we conduct business.

Arbutus was incorporated pursuant to the British Columbia Business Corporations Act, or BCBCA, on October 6, 2005, and commenced active business on April 30, 2007, when Arbutus and its parent company, Inex Pharmaceuticals Corporation, or Inex, Inex, were reorganized under a statutory plan of arrangement (the Reorganization) completed under the provisions of the BCBCA. The Reorganization saw Inex’s entire business transferred to and continued by Arbutus.

On March 4, 2015, we completed a business combination pursuant to which Arbutus Inc. (formerly known as OnCore Biopharma, Inc., or OnCore), became our wholly-owned subsidiary. This combined company intends to focus on developing a curative regimen for HBV patients by combining multiple therapeutic approaches.

Arbutus’ head office and principal place of business is located at 100-8900 Glenlyon Parkway, Burnaby, British Columbia, Canada, V5J 5J8 (telephone: (604) 419-3200). The Company’s registered and records office is located at 700 West Georgia St, 25th Floor, Vancouver, British Columbia, Canada, V7Y 1B3. Arbutus also has US operations located at 701 Veterans Circle, Warminster, Pennsylvania.

Investor information

We are a reporting issuer in Canada under the securities laws of each of the Provinces of Canada. Arbutus' common shares trade on the NASDAQ Global Market under the symbol "ABUS". We maintain a website at http://www.arbutusbio.com. The information on our website is not incorporated by reference into this annual report on Form 10-K and should not be considered to be a part of this annual report on Form 10-K. Our website address is included in this annual report on Form 10-K as an inactive technical reference only. Our reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, including our annual reports on Form 10-K (annual reports on Form 20-F up to year ended December 31, 2012), our quarterly reports on Form 10-Q (quarterly reports on Form 6-K up to quarter-ended September 30, 2013) and our current reports on Form 8-K, and amendments to those reports, are accessible through our website, free of charge, as soon as reasonably practicable after these reports are filed electronically with, or otherwise furnished to, the SEC. We also make available on our website the charters of our audit committee, executive compensation and human resources committee and corporate governance and nominating committee, whistleblower policy, insider trading policy, corporate disclosure policy, related persons transactions policy and majority voting policy, as well as our code of business conduct and ethics for directors, officers and employees. In addition, we intend to disclose on our web site any amendments to, or waivers from, our code of business conduct and ethics that are required to be disclosed pursuant to the SEC rules.

You may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website that contains reports, proxy and information statements, and other information regarding Arbutus and other issuers that file electronically with the SEC. The SEC's website address is http://www.sec.gov.

Executive Officers of the Registrant

Set forth below is information about our executive officers, as of March 21, 2017.

Name	Age	Position(s)
Mark Murray	68	President and Chief Executive Officer, and Director
Bruce Cousins	56	Executive Vice President and Chief Financial Officer
Michael Sofia	59	Chief Scientific Officer
William Symonds	49	Chief Development Officer and Director
Peter Lutwyche	51	Chief Technology Officer
Elizabeth Howard	63	Executive Vice President and General Counsel

Dr. Mark Murray has served as our President, Chief Executive Officer and Director since May 2008, when Dr. Murray joined Arbutus in connection with the closing of the business combination between Arbutus and Protiva. He previously was the President and CEO and founder of Protiva since its inception in the summer of 2000. Dr. Murray has over 20 years of experience in both the R&D and business development and management facets of the biotechnology industry. Dr. Murray held senior management positions at ZymoGenetics and Xcyte Therapies prior to joining Protiva. Since entering the biotechnology industry Dr. Murray has successfully completed numerous and varied partnering deals, directed successful product development programs, been responsible for strategic planning programs, raised over $30 million in venture capital and executed extensive business development initiatives in the U.S., Europe and Asia. During his R&D career, Dr. Murray worked extensively on three programs that resulted in FDA approved drugs, including the first growth factor protein approved for human use, a program he led for several years following its discovery. Dr. Murray obtained his Ph.D. in Biochemistry from the University of Oregon Health Sciences University and was a Damon Runyon-Walter Winchell post-doctoral research fellow for three years at the Massachusetts Institute of Technology.

Mr. Bruce Cousins has served as our Executive Vice President and Chief Financial Officer since October 2013. Mr. Cousins brings to Arbutus extensive global financial and pharmaceutical industry experience both working for multi-million dollar companies and leading start-ups through to successful completion of their strategic growth plans. In 2004, Mr. Cousins joined Aspreva Pharmaceuticals and led its highly successful IPO. In 2008, he played a key leadership role in the eventual sale of Aspreva in a $915 million all-cash transaction. Prior to joining Aspreva, Mr. Cousins spent 14 years with Johnson & Johnson (J&J) working in operations and finance, both domestically and internationally. Prior to the pharmaceutical industry, Mr. Cousins was a chartered accountant with Deloitte & Touche. More recently, Mr. Cousins spent several years in the renewable energy sector, and from 2011 to 2013 he was Chief Executive Officer of Carmanah Technologies Corporation, a TSX-listed company. Prior to Carmanah, he held Chief Financial Officer positions at Xantrex Technology Inc. and Ballard Power Systems. Mr. Cousins completed a Bachelor of Commerce degree from McMaster University in 1987 and received a Chartered Accountant designation in 1989.

Dr. Michael Sofia has served as our Chief Scientific Officer since our acquisition of OnCore Biopharma, Inc. Dr. Sofia was one of OnCore Biopharma's co-founders and served as its Chief Scientific Officer and Head of Research and Development since July 2014. He previously served as President and a member of its board of directors from May 2012 to August 2014. Since April 2012, Dr. Sofia has been a professor at the Baruch S. Blumberg Institute and since March 2013, Dr. Sofia has been an adjunct professor at the Drexel University School of Medicine. Previously, Dr. Sofia was the Senior Vice-President, Chemistry, Site Head and then Senior Advisor at Gilead Sciences, Inc. from January 2012 to December 2012. Prior to that, Dr. Sofia was the Senior Vice-President, Chemistry at Pharmasset, Inc. from August 2005 to January 2012. From 1999 to 2005, Dr. Sofia served as a Group Director, New Leads Chemistry at Bristol-Myers Squibb. From 1993 to 1999, Dr. Sofia established and directed the research programs at Transcell Technologies, first as Director of Chemistry and then as Vice-President of Research. Dr. Sofia received his B.A. degree from Cornell University, his Ph.D. degree from the University of Illinois at Urbana-Champaign and was an NIH postdoctoral fellow at Columbia University. Dr. Sofia has won the Economist's 2015 Innovation Award in the Bioscience category and the Lasker-Debakey Clinical Medical Research Award, for developing a rapid cure for hepatitis C virus infection (HCV).

Dr. William Symonds has served as our Chief Development Officer since March 2015. Dr. Symonds has served as a director of Arbutus and previously OnCore since August 2014 and as its Chief Development Officer since March 2015. Dr. Symonds is also currently Chief Development Officer at Roivant Sciences, Inc.. Prior to that, Dr. Symonds served as Vice-President, Liver Disease Therapeutic Area at Gilead Sciences, Inc. from February 2012 until April 2014, and was the Senior Vice-President, Clinical Pharmacology and Translational Medicine at Pharmasset, Inc. from 2007 to January 2012. From 1993 to 2007, Dr. Symonds held various positions of increasing responsibility at GlaxoSmithKline, most recently as Director, Antiviral Clinical Pharmacology and Discovery Medicine. Dr. Symonds received his Doctor of Pharmacy degree from Campbell University and completed a fellowship in clinical pharmacokinetics at the Clinical Pharmacokinetics Laboratory in Buffalo, New York.

Dr. Peter Lutwyche has served as our Chief Technology Officer since 2015. Dr. Lutwyche's responsibilities at Arbutus include manufacturing, process development and quality control for all Arbutus product candidates, as well as supporting Arbutus' collaborative partners as they advance products that utilize Arbutus's technology. Previously Dr. Lutwyche held various positions up to Director, Pharmaceutical Development at QLT Inc. from 1998 to 2008. During his tenure at QLT, Dr. Lutwyche contributed to the development and commercialization of Visudyne as well as leading manufacturing and chemistry efforts for numerous pre-clinical and clinical stage products. Prior to QLT, he was a research scientist at Inex Pharmaceuticals Corporation working with lipid-based formulations of nucleic acids and antibiotics. Dr. Lutwyche holds a Ph.D. in Chemistry from the University of British Columbia.

Dr. Elizabeth Howard serves as our Executive Vice President and General Counsel. Dr. Howard has been practicing law for more than 20 years. Prior to joining Arbutus in March 2016, she was an intellectual property partner at Orrick, where she co-chaired Orrick's life sciences practice focusing on patent infringement litigation. Her practice also included trade secrets disputes and handling anti-counterfeiting matters in the pharmaceutical industry. In addition to litigating in numerous federal district courts and California state courts, Dr. Howard has appeared before the U.S. Patent and Trademark Office in interference proceedings, arbitrated before numerous tribunals, and litigated before the U.S. International Trade Commission (ITC). Dr. Howard also served as a deputy district attorney in the county of Santa Clara. Additionally, Dr. Howard counseled clients in negotiation and drafting of agreements in licensing or other technology transactions. She also speaks and publishes regularly on intellectual property matters affecting the life sciences industry. Dr. Howard has been listed as a "leading lawyer" in “PLC Which Lawyer" for her litigation successes in life sciences, and named to the Daily Journal's list of "Top 75 IP Litigators in California" in 2013. Before law school, Dr. Howard was an NSF Plant Molecular Biology Postdoctoral Fellow at the CSIRO Division of Plant Industry in Canberra, Australia, and a Research Geneticist at the University of California, Berkeley. Dr. Howard obtained her doctorate with Dr. Elizabeth Blackburn (2009 Nobel Laureate, Physiology or Medicine). Dr. Howard holds a B.A. with honors from the University of California, Santa Barbara, a Ph.D. in Molecular Biology from the University of California, Berkeley, a J.D. from the University of California, Hastings College of the Law, and is a member of the United States Patent Bar.

Item 1A. Risk Factors

Our business is subject to numerous risks. We caution you that the following important factors, among others, could cause our actual results to differ materially from those expressed in forward-looking statements made by us or on our behalf in filings with the SEC and Canadian securities regulators, press releases, communications with investors and oral statements. All statements other than statements relating to historical matters should be considered forward-looking statements. When used in this report, the words “believe,” “expect,” “plan,” “anticipate,” “estimate,” “predict,” “may” “could” “should,” “intend,” “will,” “target,” “goal” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these words. Any or all of our forward-looking statements in this annual report on Form 10-K and in any other public statements we make may turn out to be wrong. They can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in the discussion below will be important in determining future results. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially from those anticipated in forward-looking statements. We explicitly disclaim any obligation to update any forward-looking statements to reflect events or circumstances that arise after the date hereof, unless required by law. You are advised, however, to consult any further disclosure we make in our reports filed with the SEC and Canadian securities regulators.

Risks Related to Our Business

We are in the early stages of our development, there is a limited amount of information about us upon which you can evaluate our RNAi business, and our HBV candidates and prospects.

We have not begun to market or generate revenues from the commercialization of any RNAi products or our HBV products. We have only a limited history upon which one can evaluate our business and prospects as our therapeutic products are still at an early stage of development and thus we have limited experience and have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical area. For example, to execute our business plan, we will need to successfully:

- execute research and development activities using RNAi technology; and technologies involved in the development of HBV therapeutics;
- build, maintain and protect a strong intellectual property portfolio;
- gain acceptance for the development and commercialization of any product we develop;
- develop and maintain successful strategic relationships; and
- manage our spending and cash requirements as our expenses are expected to increase due to research and preclinical work, clinical trials, regulatory approvals, and commercialization and maintaining our intellectual property portfolio

If we are unsuccessful in accomplishing these objectives, we may not be able to develop products, raise capital, expand our business or continue our operations. The approach we are taking to discover and develop novel drug products is unproven and may never lead to marketable drug products.

We intend to concentrate our internal research and development efforts in the future primarily on the discovery and development of therapeutics targeting chronic hepatitis B in order to ultimately develop a cure for the disease. Our future

success depends in part on the successful development of these therapeutics. Our approach to the treatment of HBV is unproven, and we do not know whether we will be able to develop any drugs of commercial value.

There is no known cure for HBV. Any compounds that we develop may not effectively address HBV persistence. Even if we are able to develop compounds that address one or more of these key factors, targeting these key factors has not been proven to cure HBV. If we cannot develop compounds to achieve our goal of curing HBV internally, we may be unable to acquire additional drug candidates on terms acceptable to us, or at all. Even if we are able to acquire or develop drug candidates that address one of these mechanisms of action in preclinical studies, we may not succeed in demonstrating safety and efficacy of the drug candidate in human clinical trials. If we are unable to identify suitable compounds for preclinical and clinical development, we will not succeed in realizing our goal of a cure for HBV.

We also intend to continue research and development efforts on RNAi technology and products based on RNAi technology. While RNAi technology is based on a naturally occurring process that takes place inside cells, which can suppress the production of specific proteins, and has the potential to generate therapeutic drugs that take advantage of that process, neither we nor any other company has received regulatory approval to market a therapeutic product based on RNAi technology. The scientific discoveries that form the basis for our efforts to discover and develop new products are relatively new. While there are a number of RNAi therapeutics in development, very few product candidates based on these discoveries have ever been tested in humans and there can be no assurance that any RNAi therapeutic product will be approved for commercial use.

If we are not successful in developing a product with our research and development efforts, we may be required to change the scope and direction of our product development activities. In that case, we may not be able to identify and implement successfully an alternative product development strategy.

We expect to depend in part on our existing collaborators for a significant portion of our revenues and to develop, conduct clinical trials with, obtain regulatory approvals for, and manufacture, market and sell some of our product candidates. If these collaborations are unsuccessful, or anticipated milestone payments are not received, our business could be adversely affected.

We expect that we will depend in part on Alnylam and Spectrum to provide revenue to fund our operations, especially in the near term. Furthermore, our strategy is to enter into various additional arrangements with corporate and academic collaborators, licensors, licensees and others for the research, development, clinical testing, manufacturing, marketing and commercialization of our products. We may be unable to continue to establish such collaborations, and any collaborative arrangements we do establish may be unsuccessful, or we may not receive milestone payments as anticipated.

Should any collaborative partner fail to develop or ultimately successfully commercialize any of the products to which it has obtained rights, our business may be adversely affected. In addition, once initiated, there can be no assurance that any of these collaborations will be continued or result in successfully commercialized products. Failure of a collaborative partner to continue funding any particular program could delay or halt the development or commercialization of any products arising out of such program. In addition, there can be no assurance that the collaborative partners will not pursue alternative technologies or develop alternative products either on their own or in collaboration with others, including our competitors, as a means for developing treatments for the diseases targeted by our programs.

We expect to spend substantial amounts to acquire additional drug candidates, to conduct further research and development and preclinical testing and clinical trials of our drug candidates, to seek regulatory approvals for our drug candidates and to launch and commercialize any drug candidates for which we receive regulatory approval. These expenditures will include costs associated with our and our subsidiary's licensing agreements with Blumberg or Drexel. Under the terms of these agreements, we are obligated to make significant cash payments upon the achievement of specified development, regulatory and sales performance milestones, as well as royalty payments in connection with the sale of licensed products, to our licensors.

We rely on third parties to conduct our clinical trials, and if they fail to fulfill their obligations, our development plans may be adversely affected.

We rely on independent clinical investigators, contract research organizations and other third-party service providers to assist us in managing, monitoring and otherwise carrying out our clinical trials. We have contracted with, and we plan to continue to contract with, certain third parties to provide certain services, including site selection, enrollment, monitoring and data management services. Although we depend heavily on these parties, we do not control them and therefore, we cannot be assured that these third parties will adequately perform all of their contractual obligations to us. If our third-party service providers cannot adequately fulfill their obligations to us on a timely and satisfactory basis or if the quality or accuracy of our

clinical trial data is compromised due to failure to adhere to our protocols or regulatory requirements, or if such third parties otherwise fail to meet deadlines, our development plans may be delayed or terminated.

We have no sales, marketing or distribution experience and would have to invest significant financial and management resources to establish these capabilities.

We have no sales, marketing or distribution experience. We currently expect to rely heavily on third parties to launch and market certain of our products, if approved. However, if we elect to develop internal sales, distribution and marketing capabilities, we will need to invest significant financial and management resources. For products where we decide to perform sales, marketing and distribution functions ourselves, we could face a number of additional risks, including:

- we may not be able to attract and build a significant marketing or sales force;
- the cost of establishing a marketing or sales force may not be justifiable in light of the revenues generated by any particular product; and
- our direct sales and marketing efforts may not be successful.

If we are unable to develop our own sales, marketing and distribution capabilities, we will not be able to successfully commercialize our products, if approved, without reliance on third parties.

We will rely on third-party manufacturers to manufacture our products (if approved) in commercial quantities, which could delay, prevent or increase the costs associated with the future commercialization of our products.

Our product candidates have not yet been manufactured for commercial use. If any of our product candidates become approved for commercial sale, in order to supply our or our collaborators' commercial requirements for such an approved product, we will need to establish third-party manufacturing capacity. Any third-party manufacturing partner may be required to fund capital improvements to support the scale-up of manufacturing and related activities. The third-party manufacturer may not be able to establish scaled manufacturing capacity for an approved product in a timely or economic manner, if at all. If a manufacturer is unable to provide commercial quantities of such an approved product, we will have to successfully transfer manufacturing technology to a new manufacturer. Engaging a new manufacturer for such an approved product could require us to conduct comparative studies or utilize other means to determine bioequivalence of the new and prior manufacturers' products, which could delay or prevent our ability to commercialize such an approved product. If any of these manufacturers is unable or unwilling to increase its manufacturing capacity or if we are unable to establish alternative arrangements on a timely basis or on acceptable terms, the development and commercialization of such an approved product may be delayed or there may be a shortage in supply. Any inability to manufacture our products in sufficient quantities when needed would seriously harm our business.

Manufacturers of our approved products, if any, must comply with current good manufacturing practices (cGMP) requirements enforced by the FDA and Health Canada through facilities inspection programs. These requirements include quality control, quality assurance, and the maintenance of records and documentation. Manufacturers of our approved products, if any, may be unable to comply with these cGMP requirements and with other FDA, Health Canada, state, and foreign regulatory requirements. We have little control over our manufacturers' compliance with these regulations and standards. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval. If the safety of any quantities supplied is compromised due to our manufacturer's failure to adhere to applicable laws or for other reasons, we may not be able to obtain regulatory approval for or successfully commercialize our products, which would seriously harm our business.

Risks Related to Our Financial Results and Need for Financing

We will require substantial additional capital to fund our operations. If additional capital is not available, we may need to delay, limit or eliminate our research, development and commercialization processes and may need to undertake a restructuring.

Within the next several years, substantial additional funds will be required to continue with the active development of our pipeline products and technologies. In particular, our funding needs may vary depending on a number of factors including:

- revenues earned from our partners, including Alnylam and Spectrum;
- the extent to which we continue the development of our product candidates or form collaborative relationships to advance our products;
- our decisions to in-license or acquire additional products or technology for development,

- our ability to attract and retain corporate partners, and their effectiveness in carrying out the development and ultimate commercialization of our product candidates;
- whether batches of drugs that we manufacture fail to meet specifications resulting in delays and investigational and remanufacturing costs;
- the decisions, and the timing of decisions, made by health regulatory agencies regarding our technology and products;
- competing technological and market developments; and
- prosecuting and enforcing our patent claims and other intellectual property rights.

We will seek to obtain funding to maintain and advance our business from a variety of sources including public or private equity or debt financing, collaborative arrangements with pharmaceutical and biotechnology companies, licensing our LNP technology, and government grants and contracts. There can be no assurance that funding will be available at all or on acceptable terms to permit further development of our products especially in light of the current difficult climate for investment in biotechnology companies.

If adequate funding is not available, we may be required to delay, reduce or eliminate one or more of our research or development programs or reduce expenses associated with non-core activities. We may need to obtain funds through arrangements with collaborators or others that may require us to relinquish most or all of our rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise seek if we were better funded. Insufficient financing may also mean failing to prosecute our patents or relinquishing rights to some of our technologies that we would otherwise develop or commercialize.

We have incurred losses in nearly every year since our inception and we anticipate that we will not achieve sustained profits for the foreseeable future. To date, we have had no product revenues.

With the exception of the years ended December 31, 2006 and December 31, 2012, we have incurred losses each fiscal year since inception until December 31, 2016 and have not received any revenues other than from research and development collaborations, royalties, license fees and milestone payments. From inception to December 31, 2016, we have an accumulated net deficit of $651.1 million. As we continue our research and development and clinical trials and seek regulatory approval for the sale of our product candidates, we do not expect to attain sustained profitability for the foreseeable future. We do not expect to achieve sustained profits until such time as strategic alliance payments, product sales and royalty payments, if any, generate sufficient revenues to fund our continuing operations. We cannot predict if we will ever achieve profitability and, if we do, we may not be able to remain consistently profitable or increase our profitability.

We are subject to risks associated with currency fluctuations, and changes in foreign currency exchange rates could impact our results of operations.

Prior to January 1, 2016, our functional currency was the Canadian dollar. On January 1, 2016, our functional currency changed from the Canadian dollar to the U.S. dollar based on our analysis of the changes in the primary economic environment in which we operate. As a result, changes in the exchange rate between the Canadian dollar and the U.S. dollar could materially impact our reported results of operations and distort period to period comparisons. In particular, to the extent that foreign currency-denominated (i.e., non-U.S. dollar) monetary assets do not equal the amount of our foreign currency denominated monetary liabilities, foreign currency gains or losses could arise and materially impact our financial statements. As a result of such foreign currency fluctuations, it could be more difficult to detect underlying trends in our business and results of operations. In addition, to the extent that fluctuations in currency exchange rates cause our results of operations to differ from our expectations or the expectations of our investors, the trading price of our common shares could be adversely affected.

From time to time, we may engage in exchange rate hedging activities in an effort to mitigate the impact of exchange rate fluctuations. Any hedging technique we implement may fail to be effective. If our hedging activities are not effective, changes in currency exchange rates may have a more significant impact on the trading price of our common shares.

Risks Related to Managing Our Operations

If we are unable to attract and retain qualified key management, scientific staff, consultants and advisors, our ability to implement our business plan may be adversely affected.

We depend upon our senior executive officers as well as key scientific, management and other personnel. The competition for qualified personnel in the biotechnology field is intense. We rely heavily on our ability to attract and retain qualified managerial, scientific and technical staff. The loss of the service of any of the members of our senior management,

including Dr. Mark Murray, our President and Chief Executive Officer, may adversely affect our ability to develop our technology, add to our pipeline, advance our product candidates and manage our operations.

We may have difficulty managing our growth and expanding our operations successfully as we seek to evolve from a company primarily involved in discovery and preclinical testing into one that develops products through clinical development and commercialization.

As product candidates we develop enter and advance through clinical trials, we will need to expand our development, regulatory, manufacturing, clinical and medical capabilities or contract with other organizations to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various collaborators, suppliers and other organizations. Our ability to manage our operations and growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. We may not be able to implement improvements to our management information and control systems in an efficient or timely manner and may discover deficiencies in existing systems or controls.

We could face liability from our controlled use of hazardous and radioactive materials in our research and development processes.

We use certain radioactive materials, biological materials and chemicals, including organic solvents, acids and gases stored under pressure, in our research and development activities. Our use of radioactive materials is regulated by the Canadian Nuclear Safety Commission and the US Nuclear Regulatory Commission for the possession, transfer, import, export, use, storage, handling and disposal of radioactive materials. Our use of biological materials and chemicals, including the use, manufacture, storage, handling and disposal of such materials and certain waste products is regulated by a number of federal, state and local laws and regulations. Although we believe that our safety procedures for handling such materials comply with the standards prescribed by such laws and regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources. We are not specifically insured with respect to this liability.

Our business, reputation, and operations could suffer in the event of information technology system failures.

We are increasingly dependent on sophisticated software applications and computing infrastructure to conduct critical operations. Disruption, degradation, or manipulation of these applications and systems through intentional or accidental means could impact key business processes. Despite the implementation of security measures, our internal computer systems and those of our contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war, and telecommunication and electrical failures. Such events could result in exposure of confidential information, the modification of critical data, and/or the failure or interruption of critical operations. For example, the loss of pre-clinical trial data or data from completed or ongoing clinical trials for our product candidates could result in delays in our regulatory filings and development efforts and significantly increase our costs. To the extent that any disruption or security breach will result in a loss of or damage to our data, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the development of our product candidates could be delayed. While we have implemented security measures, including controls over unauthorized access, our internal computer systems and those of our contractors and consultants are vulnerable to damage from these events. There can be no assurance that our efforts to protect data and systems will prevent service interruption or the loss of critical or sensitive information from our or third party providers' databases or systems that could result in financial, legal, business or reputational harm to us or that our insurance would provide any or adequate coverage of any such loss.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial reports, which could have a material adverse effect on our stock price and our ability to raise capital.

A failure to maintain effective internal control over financial reporting or disclosure controls and procedures could adversely affect our ability to report our financial results accurately and on a timely basis, which could result in material misstatement in our financial statements, a loss of investor confidence in our financial reporting or adversely affect our access to sources of liquidity. Furthermore, because of the inherent limitations of any system of internal control over financial reporting, including the possibility of human error, the circumvention or overriding of controls and fraud, even effective internal controls may not prevent or detect all misstatements. Frequent or rapid changes in procedures, methodologies, systems and technology exacerbate the challenge of developing and maintaining a system of internal controls and can increase the cost and level of effort to develop and maintain such systems.

As of December 31, 2016, our independent registered public accounting firm conducted an assessment of the effectiveness of our internal control over financial reporting. Based on this assessment, our independent registered public accounting firm identified a material weakness in our internal controls over the timeliness of judgments made in our annual impairment evaluation of intangible assets and goodwill and the mathematical accuracy of the goodwill impairment calculation, which resulted in a material adjustment to the December 31, 2016 financial statements that we did not identify in a timely manner. See Item 9A, "Controls and Procedures" in this Form 10-K for additional information and management's assessment of internal controls. Although we have already planned efforts to remediate the material weakness, and our independent registered public accounting firm issued an unqualified opinion with regards to our financial condition and results of operations for the fiscal year ended December 31, 2016, there can be no assurance that we will be able to remediate the material weakness in a timely manner.

We rely on and will incur additional expense in connection with our research collaboration with Blumberg.

In June 2016, Arbutus Inc. entered into an amended agreement with Blumberg under which Arbutus Inc. will provide annual funding in the amount of $1.1 million per year through October 29, 2018, and which is renewable for two additional one year terms at our option, for Blumberg to conduct research projects in HBV and liver cancer pursuant to a research plan to be agreed upon by the parties. In exchange, Arbutus Inc. has the right to obtain an exclusive, royalty bearing, worldwide license to intellectual property generated by Blumberg in the course of the funded research and we believe that Blumberg's HBV research platform will continue to be a source of potentially novel hepatitis B targets, drug candidates, assays and other HBV specific technologies. As a result, we are dependent, in part, upon the success of Blumberg in performing its responsibilities under this research collaboration. Blumberg may not cooperate with us or perform its obligations under the agreement. We cannot control the amount and timing of Blumberg's resources that will be devoted to research and development activities related to our research collaboration. Further, development costs associated with our research projects may be difficult to anticipate and exceed our expectations. If funding is unable to continue to financially support the collaboration, if we do not obtain exclusive licenses from Blumberg to the resulting intellectual property, or if we fail to comply with our obligations under those license agreements, its development efforts may be materially harmed.

Risks Related to Development, Clinical Testing and Regulatory Approval of Our Product Candidates

The manufacture and sale of human therapeutic products are governed by a variety of statutes and regulations. There can be no assurance that our product candidates will obtain regulatory approval.

To obtain marketing approval, U.S. and Canadian laws require:

- controlled research and human clinical testing;
- establishment of the safety and efficacy of the product for each use sought;
- government review and approval of a submission containing manufacturing, pre-clinical and clinical data;
- adherence to Good Manufacturing Practice Regulations during production and storage; and
- control of marketing activities, including advertising and labeling

The product candidates we currently have under development will require significant development, preclinical and clinical testing and investment of significant funds before their commercialization. Some of our product candidates, if approved, will require the completion of post-market studies. There can be no assurance that such products will be developed. The process of completing clinical testing and obtaining required approvals is likely to take a number of years and require the use of substantial resources. If we fail to obtain regulatory approvals, our operations will be adversely affected. Further, there can be no assurance that product candidates employing a new technology will be shown to be safe and effective in clinical trials or receive applicable regulatory approvals.

Other markets have regulations and restrictions similar to those in the U.S. and Canada. Investors should be aware of the risks, problems, delays, expenses and difficulties which we may encounter in view of the extensive regulatory environment which affects our business in any jurisdiction where we develop product candidates.

If testing of a particular product candidate does not yield successful results, then we will be unable to commercialize that product candidate.

We must demonstrate our product candidates' safety and efficacy in humans through extensive clinical testing. Our research and development programs are at an early stage of development. We may experience numerous unforeseen events during, or as a result of, the testing process that could delay or prevent commercialization of any products, including the following:

- decreased demand for our product candidates;
- impairment of our business reputation;
- withdrawal of clinical trial participants;
- costs of related litigation;
- substantial monetary awards to patients or other claimants;
- loss of revenues; and
- inability to commercialize our product candidates.

Although we currently have product liability insurance coverage for our clinical trials for expenses or losses, our insurance coverage is limited to $10 million per occurrence, and $10 million in the aggregate, and may not reimburse us or may not be sufficient to reimburse us for any or all expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. On occasion, large judgments have been awarded in class action lawsuits based on products that had unanticipated side effects. A successful product liability claim or series of claims brought against us could cause our stock price to fall and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our drug candidates and affect the prices we may obtain.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or delay marketing approval of our drug candidates, restrict or regulate post approval activities and affect our ability to profitably sell any products for which we obtain marketing approval.

For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care Education Reconciliation Act, or collectively the Affordable Care Act, was enacted to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. Additionally, the Drug Supply Chain Security Act, enacted in 2013, imposed new obligations on manufacturers of pharmaceutical products related to product and tracking and tracing.

In January 2017, Congress voted in favor of a budget resolution that will produce legislation that would repeal certain aspects of the Affordable Care Act if enacted into law. Congress is also considering subsequent legislation to replace or repeal elements or all of the Affordable Care Act. In addition, there have been recent public announcements by members of Congress and the new presidential administration regarding their plans to repeal and replace the Affordable Care Act. Further, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Affordable Care Act to waive, defer, grant exemptions from, or delay the implementation of any provision of the Affordable Care Act that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. At this time, it is not clear whether the Affordable Care Act will be repealed in whole or in part, and, if it is repealed, whether it will be replaced in whole or in part by another plan. and what impact those changes will have on coverage and reimbursement for healthcare items and services covered by plans that were authorized by the Affordable Care Act. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, including pharmaceuticals, and also indirectly affect the amounts that private payers are willing to pay.

Legislative and regulatory proposals have been made to expand post approval requirements and restrict sales and promotional activities for pharmaceutical products. Any healthcare reforms enacted in the future may, like the Affordable Care Act, be phased in over a number of years but, if enacted, could reduce our revenue, increase our costs, or require us to revise the ways in which we conduct business or put us at risk for loss of business. We are not sure whether additional legislative changes will be enacted, or whether the current regulations, guidance or interpretations will be changed, or what the impact of such changes on our business, if any, may be.

Coverage and adequate reimbursement may not be available for our drug candidates, which could make it difficult for us to sell our products profitably.

Market acceptance and sales of any drug candidates that we develop, will depend in part on the extent to which reimbursement for these products and related treatments will be available from third party payors, including government health administration authorities and private health insurers. Third party payors decide which drugs they will pay for and establish reimbursement levels. Third party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. However, decisions regarding the extent of coverage and amount of reimbursement to be provided for each of our drug candidates will be made on a plan by plan basis. One payors determination to provide coverage for a product does not assure that other payors will also provide coverage, and adequate reimbursement, for the product. Additionally, a third party payors decision to provide coverage for a drug does not imply that an adequate reimbursement rate will be approved. Each plan determines whether or not it will provide coverage for a drug, what amount it will pay the manufacturer for the drug, and on what tier of its formulary the drug will be placed. The position of a drug on a formulary generally determines the copayment that a patient will need to make to obtain the drug and can strongly influence the adoption of a drug by patients and physicians. Patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products.

A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Third party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. We cannot be sure that coverage and reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Inadequate coverage and reimbursement may impact the demand for, or the price of, any product for which we obtain marketing approval. If coverage and adequate reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize any drug candidates that we develop.

Additionally, there have been a number of legislative and regulatory proposals to change the healthcare system in the United States and in some foreign jurisdictions that could affect our ability to sell any future drugs profitably. These legislative and regulatory changes may negatively impact the reimbursement for any future drugs, following approval.

Risks Related to Patents, Licenses and Trade Secrets

Other companies or organizations may assert patent rights that prevent us from developing or commercializing our products.

RNA interference is a relatively new scientific field that has generated many different patent applications from organizations and individuals seeking to obtain patents in the field. These applications claim many different methods, compositions and processes relating to the discovery, development and commercialization of RNAi therapeutic products. Because the field is so new, very few of these patent applications have been fully processed by government patent offices around the world, and there is a great deal of uncertainty about which patents will be issued, when, to whom, and with what claims. It is likely that there could be litigation and other proceedings, such as interference and opposition proceedings in various patent offices, relating to patent rights in RNAi.

In addition, there are many issued and pending patents that claim aspects of RNAi trigger chemistry technology that we may need to apply to our product candidates. There are also many issued patents that claim genes or portions of genes that may be relevant for RNAi trigger drug products we wish to develop. Thus, it is possible that one or more organizations will hold patent rights to which we will need a license. If those organizations refuse to grant us a license to such patent rights on reasonable terms, we will not be able to market products or perform research and development or other activities covered by these patents.

Our patents and patent applications may be challenged and may be found to be invalid, which could adversely affect our business.

Certain Canadian, U.S. and international patents and patent applications we own involve complex legal and factual questions for which important legal principles are largely unresolved. For example, no consistent policy has emerged for the breadth of biotechnology patent claims that are granted by the U.S. Patent and Trademark Office or enforced by the U.S. federal courts. In addition, the coverage claimed in a patent application can be significantly reduced before a patent is issued. Also, we face the following intellectual property risks:

- some or all patent applications may not result in the issuance of a patent;
- patents issued may not provide the holder with any competitive advantages;

- patents could be challenged by third parties;
- the patents of others, including Alnylam, could impede our ability to do business;
- competitors may find ways to design around our patents; and
- competitors could independently develop products which duplicate our products.

A number of industry competitors and institutions have developed technologies, filed patent applications or received patents on various technologies that may be related to or affect our business. Some of these technologies, applications or patents may conflict with our technologies or patent applications. Such conflict could limit the scope of the patents, if any, that we may be able to obtain or result in the denial of our patent applications. In addition, if patents that cover our activities are issued to other companies, there can be no assurance that we would be able to obtain licenses to these patents at a reasonable cost or be able to develop or obtain alternative technology. If we do not obtain such licenses, we could encounter delays in the introduction of products, or could find that the development, manufacture or sale of products requiring such licenses is prohibited. In addition, we could incur substantial costs in defending patent infringement suits brought against us or in filing suits against others to have such patents declared invalid. As publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain we or any licensor was the first creator of inventions covered by pending patent applications or that we or such licensor was the first to file patent applications for such inventions. Any future proceedings could result in substantial costs, even if the eventual outcomes are favorable. There can be no assurance that our patents, if issued, will be held valid or enforceable by a court or that a competitor's technology or product would be found to infringe such patents.

Our business depends, in part, on our ability to use RNAi technology that we have licensed or will in the future license from third parties, including Alnylam, and, if these licenses were terminated or if we were unable to license additional technology we may need in the future, our business will be adversely affected.

We currently hold licenses for certain technologies that are or may be applicable to our current and subsequent product candidates. These include a license to patents held or applied for by Alnylam and a license to UNA technology from Arcturus Therapeutics. The licenses are subject to termination in the event of a breach by us of the license, if we fail to cure the breach following notice and the passage of a cure period. The UBC license, which is sublicensed to Alnylam, is subject to termination with respect to one or more particular patents if we and Alnylam were to cease patent prosecution or maintenance activities with respect to such patent(s), or in the event of a breach by us of the license, if we fail to cure the breach following notice and the passage of a cure period. There can be no assurance that these licenses will not be terminated. We may need to acquire additional licenses in the future to technologies developed by others, including Alnylam. For example, Alnylam has granted us a worldwide license for the discovery, development and commercialization of RNAi products directed to thirteen gene targets (three exclusive and ten non-exclusive licenses). Licenses for the five non-exclusive targets and one exclusive target have already been granted. We have rights to select the gene targets for up to two more exclusive licenses and five more nonexclusive licenses from Alnylam, which would be made available to us only if they have not been previously selected by Alnylam or one of its other partners. This will limit the targets available for selection by us, and we may never be able to select gene targets or may be required to make our selection from gene targets that have minimal commercial potential. Furthermore, future license agreements may require us to make substantial milestone payments. We will also be obligated to make royalty payments on the sales, if any, of products resulting from licensed RNAi technology. For some of our licensed RNAi technology, we are responsible for the costs of filing and prosecuting patent applications. The termination of a license or the inability to license future technologies on acceptable terms may adversely affect our ability to develop or sell our products.

Our business depends, in part, on our ability to use the technology that we have licensed or will in the future license from third parties, including Blumberg, and, if these licenses were terminated or if we were unable to license additional technology we may need in the future, our business will be adversely affected.

We have licensed certain of our intellectual property from Blumberg. Our current technology licenses are important to our business and we expect to enter into additional licenses in the future. If we fail to comply with our obligations under these agreements or any future license agreements, we may be subject to a bankruptcy, or if we grant a sublicense in the future and our sublicense does not comply with our obligations under these agreements or becomes subject to a bankruptcy, the licensor may have the right to terminate the license, in which event we would not be able to develop or market products covered by the license or may face other penalties under the agreements, which could have a materially adverse effect on our business. In addition, applicable laws involving bankruptcy or similar proceeding by licensors in some jurisdictions outside the United States may provide the trustee or receiver in such proceeding with the right to set aside or otherwise terminate or seek to modify the license. Any termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or amended agreements with less favorable terms, or cause us to lose our rights under these agreements, including our rights to important intellectual property and technologies that form the basis of our technology, which may then be in licensed by one or more of our competitors.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights which could have a material adverse effect on our business, financial condition and results of operations and could cause the market value of our Common Shares to decline.

There has been significant litigation in the biotechnology industry over contractual obligations, patents and other proprietary rights, and we may become involved in various types of litigation that arise from time to time. Involvement in litigation could consume a substantial portion of our resources, regardless of the outcome of the litigation. Counterparties in litigation may be better able to sustain the costs of litigation because they have substantially greater resources. If claims against us are successful, in addition to any potential liability for damages, we could be required to obtain a license, grant cross-licenses, and pay substantial milestones or royalties in order to continue to develop, manufacture or market the affected products. Involvement and continuation of involvement in litigation may result in significant and unsustainable expense, and divert management's attention from ongoing business concerns and interfere with our normal operations. Litigation is also inherently uncertain with respect to the time and expenses associated therewith, and involves risks and uncertainties in the litigation process itself, such as discovery of new evidence or acceptance of unanticipated or novel legal theories, changes in interpretation of the law due to decisions in other cases, the inherent difficulty in predicting the decisions of judges and juries and the possibility of appeals. Ultimately we could be prevented from commercializing a product or be forced to cease some aspect of our business operations as a result of claims of patent infringement or violation of other intellectual property rights and the costs associated with litigation, which could have a material adverse effect on our business, financial condition, and operating results and could cause the market value of our Common Shares to decline.

Confidentiality agreements with employees and others, including collaborators, may not adequately prevent disclosure of trade secrets and other proprietary information.

Much of our know-how and technology may constitute trade secrets. There can be no assurance, however, that we will be able to meaningfully protect our trade secrets. In order to protect our proprietary technology and processes, we rely in part on confidentiality agreements with our collaborators, employees, vendors, consultants, outside scientific collaborators and sponsored researchers, and other advisors. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover trade secrets and proprietary information, and in such cases we could not assert any trade secret rights against such party. Costly and time consuming litigation could continue to be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We have licensed important portions of our intellectual property from Blumberg and Drexel, and are subject to significant obligations under those license agreements.

The rights we hold under our license agreements with Blumberg and Drexel are important to our business. Our discovery and development platform is built, in part, around patents exclusively in licensed from these parties.

We have licenses with Blumberg and Drexel, both directly and through its acquisition of Enantigen, that grant us the exclusive (except in some cases as to know how that is not unique or specific to the licensed products or compound series, which are non-exclusive and subject to retained rights for non-commercial research use), worldwide license to make, have made, use, import, offer for sale and sell products incorporating one or more licensed compounds, which include capsid assembly inhibitors, inhibitors of secretion of HBV antigens, cccDNA inhibitors and hepatocellular carcinoma inhibitors, either for general use in humans or for use in the field of HBV research, diagnosis and treatment.

Under our agreements with Blumberg and Drexel, we are subject to significant obligations, including diligence obligations with respect to development and commercialization activities, payment obligations upon achievement of certain milestones and royalties on product sales, as well as other material obligations. Under our direct agreement with Blumberg and Drexel, we agreed to pay up to $3.5 million in development and regulatory milestones per licensed compound series, up to $92.5 million in sales performance milestones per licensed product, and royalties in the mid-single digits in connection with the sale of licensed products. Under each of the three license agreements that our subsidiary, Enantigen, has with Blumberg and Drexel, we are obligated to pay up to $0.5 million in development and regulatory milestones per licensed product and royalties in the low single digits in connection with the sale of licensed products. Under our agreement with Cytos, we agreed to pay up to $67 million upon the achievement of specified development and regulatory milestones for hepatitis and each additional licensed viral infection, in each case for each of the six licensed compound series, up to $110 million upon the achievement of specified sales performance milestones, and tiered royalty payments at a royalty rate in the high-single to low double digits,

based upon net sales of licensed products. If these payments become due under the terms of the agreements, we may be negatively affected.

If there is any conflict, dispute, disagreement or issue of non-performance between us and Blumberg, Drexel, or Cytos regarding our rights or obligations under these license agreements, including any conflict, dispute or disagreement arising from our failure to satisfy diligence or payment obligations under such agreements, Blumberg and Drexel or Cytos, as applicable, may have a right to terminate the license. The loss of any of these license agreements could materially and adversely affect our ability to use intellectual property that could be critical to our drug discovery and development efforts, as well as its ability to enter into future collaboration, licensing and/or marketing agreements for one or more affected drug candidates or development programs.

Some of our licensors have retained rights to develop and commercialize certain of our drug candidates to treat diseases other than HBV and, as a result, our development and commercialization efforts may be negatively affected.

Our license agreements provide us with the rights to develop and commercialize our drug candidates for HBV; however, some of our licensors have retained rights to develop and commercialize certain of its drug candidates to treat diseases other than HBV, and to license those rights to other third parties.

Risks Related to Competition

The pharmaceutical market is intensely competitive. If we are unable to compete effectively with existing drugs, new treatment methods and new technologies, we may be unable to successfully commercialize any product candidates that we develop.

The pharmaceutical market is intensely competitive and rapidly changing. Many large pharmaceutical and biotechnology companies, academic institutions, governmental agencies and other public and private research organizations are pursuing the development of novel drugs for the same diseases that we are targeting or expect to target. Many of our competitors have:

- much greater financial, technical and human resources than we have at every stage of the discovery, development, manufacture and commercialization process;
- more extensive experience in pre-clinical testing, conducting clinical trials, obtaining regulatory approvals, and in manufacturing, marketing and selling pharmaceutical products;
- product candidates that are based on previously tested or accepted technologies;
- products that have been approved or are in late stages of development; and
- collaborative arrangements in our target markets with leading companies and research institutions.

We will face intense competition from products that have already been approved and accepted by the medical community for the treatment of the conditions for which we are currently developing products. We also expect to face competition from new products that enter the market. We believe a significant number of products are currently under development, and may become commercially available in the future, for the treatment of conditions for which we may try to develop products. These products, or other of our competitors' products, may be more effective, safer, less expensive or marketed and sold more effectively, than any products we develop.

We are aware of several companies that are working to develop drugs that would compete against our drug candidates for HBV treatment. As a significant unmet medical need exists for HBV, there are several large and small pharmaceutical companies focused on delivering therapeutics for treatment of HBV. Further, it is likely that additional drugs will become available in the future for the treatment of HBV. We will face competition from other drugs currently approved or that will be approved in the future for the treatment of chronic hepatitis B.

We anticipate significant competition in the HBV market with several early phase product candidates announced. We will also face competition for other product candidates that we expect to develop in the future.

If we successfully develop product candidates, and obtain approval for them, we will face competition based on many different factors, including the following:

- safety and effectiveness of our products
- ease with which our products can be administered and the extent to which patients and physicians accept new routes of administration;
- timing and scope of regulatory approvals for these products;
- availability and cost of manufacturing, marketing and sales capabilities;
- price;
- reimbursement coverage; and
- patent position.

Our competitors may develop or commercialize products with significant advantages over any products we develop based on any of the factors listed above or on other factors. Our competitors may therefore be more successful in commercializing their products than we are which could adversely affect our competitive position and business. Competitive products may make any products we develop obsolete or uncompetitive before we can recover the expenses of developing and commercializing our product candidates. Such competitors could also recruit our employees, which could negatively impact our level of expertise and the ability to execute on our business plan. Furthermore, we also face competition from existing and new treatment methods that reduce or eliminate the need for drugs, such as the use of advanced medical devices. The development of new medical devices or other treatment methods for the diseases we are targeting and may target could make our product candidates non-competitive, obsolete or uneconomical.

We face competition from other companies that are working to develop novel products using technology similar to ours. If these companies develop products more rapidly than we do or their technologies, including delivery technologies, are more effective than ours, then our ability to successfully commercialize products will be adversely affected.

We face significant competition from other biotechnology and pharmaceutical companies targeting HBV.

As a significant unmet medical need exists for HBV, there are several large and small pharmaceutical companies focused on delivering therapeutics for treatment of HBV. These companies include Gilead Sciences, Johnson and Johnson, Assembly Biosciences, Roche, Replicor, Spring Bank, Alnylam, Arrowhead, ContraVir, Dicerna, Intellia, Cocrystal, and Enanta. Further, it is likely that additional drugs will become available in the future for the treatment of HBV.

We are aware of several companies that are working to develop drugs that would compete against our drug candidates for HBV treatment. Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of drug candidates, as well as in obtaining regulatory approvals of those drug candidates in the United States and in foreign countries. Our current and potential future competitors also have significantly more experience commercializing drugs that have been approved for marketing. Mergers and acquisitions in the pharmaceutical and biotechnology industries could result in even more resources being concentrated among a small number of our competitors.

Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Our competitors may succeed in developing, acquiring or licensing, on an exclusive basis, drug candidates that are more effective or less costly than any drug candidate that we may develop.

We will face competition from other drugs currently approved or that will be approved in the future for the treatment of HBV. Therefore, our ability to compete successfully will depend largely on our ability to:

- discover, develop and commercialize drugs that are superior to other products in the market;
- demonstrate through our clinical trials that our drug candidates are differentiated from existing and future therapies;
- attract qualified scientific, product development and commercial personnel;
- obtain patent or other proprietary protection for our drugs and technologies;
- obtain required regulatory approvals;
- successfully collaborate with pharmaceutical companies in the discovery, development and commercialization of new drugs; and
- negotiate competitive pricing and reimbursement with third party payors.

The availability of our competitors' products could limit the demand, and the price we are able to charge, for any drug candidate we develop. The inability to compete with existing or subsequently introduced drug candidates would have a material adverse impact on our business, financial condition and prospects.

Established pharmaceutical companies may invest heavily to accelerate discovery and development of novel compounds or to in license novel compounds that could make our drug candidates less competitive. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Accordingly, our competitors may succeed in obtaining patent protection, discovering, developing or receiving FDA approval for or commercializing medicines before we do, which would have a material adverse impact on our business.

Risks Related to the Ownership of our Common Shares

If our stock price fluctuates, our investors could incur substantial losses.

The market price of our Common Shares may fluctuate significantly in response to factors that are beyond our control. The stock market in general has recently experienced extreme price and volume fluctuations. The market prices of securities of pharmaceutical and biotechnology companies have been extremely volatile, and have experienced fluctuations that often have been unrelated or disproportionate to the operating performance of these companies. These broad market fluctuations could result in extreme fluctuations in the price of our Common Shares, which could cause our investors to incur substantial losses.

There is no assurance that an active trading market in our Common Shares will be sustained.

Our Common Shares are listed for trading on the NASDAQ exchange. However, there can be no assurances that an active trading market in our Common Shares on these stock exchanges will be sustained.

We are incorporated in Canada and the majority of our assets, and some of our officers reside outside the United States, with the result that it may be difficult for investors to enforce any judgments obtained against us or some of our officers.

Arbutus, and one of its subsidiaries, are incorporated under the laws of the Province of British Columbia and the majority of Arbutus' assets are located outside the United States. While we have appointed National Registered Agents, Inc. as our agent for service of process to effect service of process within the United States upon us, it may not be possible for you to enforce against us or those persons in the United States, judgments obtained in U.S. courts based upon the civil liability provisions of the U.S. federal securities laws or other laws of the United States. In addition, there is doubt as to whether original action could be brought in Canada against us or our directors or officers based solely upon U.S. federal or state securities laws and as to the enforceability in Canadian courts of judgments of U.S. courts obtained in actions based upon the civil liability provisions of U.S. federal or state securities laws.

If we are deemed to be a "passive foreign investment company" for the current or any future taxable year, investors who are subject to United States federal taxation would likely suffer materially adverse U.S. federal income tax consequences.

We generally will be a “passive foreign investment company” under the meaning of Section 1297 of the U.S. Internal Revenue Code of 1986, as amended (the “Code”), (a “PFIC”) if (a) 75% or more of our gross income is “passive income” (generally, dividends, interest, rents, royalties, and gains from the disposition of assets producing passive income) in any taxable year, or (b) if at least 50% or more of the quarterly average value of our assets produce, or are held for the production of, passive income in any taxable year. We have determined that we have not been a PFIC for the three taxable years ended December 31, 2016. If we are a PFIC for any taxable year during which a U.S. person holds our Common Shares, it would likely result in materially adverse U.S. federal income tax consequences for such U.S. person, including, but not limited to, any gain from the sale of our Common Shares would be taxed as ordinary income, as opposed to capital gain, and such gain and certain distributions on our Common Shares would be subject to an interest charge, except in certain circumstances. It may be possible for U.S. persons to fully or partially mitigate such tax consequences by making a “qualifying electing fund election,” as defined in the Code (a “QEF Election”), but there is no assurance that we will provide such persons with the information that we are required to provide to them in order to assist them in making a QEF Election. In addition, U.S. persons that hold Common Shares issuable upon exercise of warrants are generally not eligible to make certain elections available under the Code that are intended to mitigate the adverse tax consequences of PFIC rules with respect to such warrant shares unless such holders also elect to make a deemed taxable sale of their warrant shares. The PFIC rules are extremely complex and investors are urged to consult their own tax advisers to assess the implications of these rules as applicable to their own facts and circumstances.

Our articles and certain Canadian laws could delay or deter a change of control.

Our preferred shares are available for issuance from time to time at the discretion of our board of directors, without shareholder approval. Our articles allow our board, without shareholder approval, to determine the special rights to be attached to our preferred shares, and such rights may be superior to those of our Common Shares.

In addition, limitations on the ability to acquire and hold our Common Shares may be imposed by the Competition Act in Canada. This legislation permits the Commissioner of Competition of Canada to review any acquisition of a significant interest in us. This legislation grants the Commissioner jurisdiction to challenge such an acquisition before the Canadian Competition Tribunal if the Commissioner believes that it would, or would be likely to, result in a substantial lessening or prevention of competition in any market in Canada. The Investment Canada Act subjects an acquisition of control of a company by a non-Canadian to government review if the value of our assets, as calculated pursuant to the legislation, exceeds a threshold amount. A reviewable acquisition may not proceed unless the relevant minister is satisfied that the investment is likely to result in a net benefit to Canada. Any of the foregoing could prevent or delay a change of control and may deprive or limit strategic opportunities for our shareholders to sell their shares.

The exercise of all or any number of outstanding stock options, the award of any additional options, bonus shares or other stock-based awards or any issuance of shares to raise funds or acquire a business may dilute your Common Shares.

We have in the past and may in the future grant to some or all of our directors, officers and employees options to purchase our Common Shares and other stock-based awards as non-cash incentives to those persons. The issuance of any equity securities could, and the issuance of any additional shares will, cause our existing shareholders to experience dilution of their ownership interests.

Any additional issuance of shares or a decision to acquire other businesses through the sale of equity securities may dilute our investors’ interests, and investors may suffer dilution in their net book value per share depending on the price at which such securities are sold. Such issuance may cause a reduction in the proportionate ownership and voting power of all other shareholders. The dilution may result in a decline in the price of our Common Shares or a change in control.

We do not expect to pay dividends for the foreseeable future.

We have not paid any cash dividends to date and we do not intend to declare dividends for the foreseeable future, as we anticipate that we will reinvest future earnings, if any, in the development and growth of our business. Therefore, investors will not receive any funds unless they sell their Common Shares, and shareholders may be unable to sell their shares on favorable terms or at all. We cannot assure you of a positive return on investment or that you will not lose the entire amount of your investment in our Common Shares. Prospective investors seeking or needing dividend income or liquidity should not purchase our Common Shares.

The value of our securities, including our Common Shares, might be affected by matters not related to our operating performance and could subject us to securities litigation.

The value of our Common Shares may be reduced for a number of reasons, many of which are outside our control, including:

- general economic and political conditions in Canada, the United States and globally;
- governmental regulation of the health care and pharmaceutical industries;
- failure to achieve desired drug discovery outcomes by us or our collaborators;
- failure to obtain industry partner and other third party consents and approvals, when required;
- stock market volatility and market valuations;
- competition for, among other things, capital, drug targets and skilled personnel;
- the need to obtain required approvals from regulatory authorities;
- revenue and operating results failing to meet expectations in any particular period;
- investor perception of the health care and pharmaceutical industries;
- limited trading volume of our Common Shares;
- announcements relating to our business or the businesses of our competitors; and
- our ability or inability to raise additional funds.

The concentration of the common shares ownership with insiders will likely limit the ability of the other shareholders to influence corporate matters.

As of March 21, 2017, executive officers, directors, five percent or greater shareholders, and their respective affiliated entities of the Arbutus beneficially own, in the aggregate, approximately 45% of Arbutus' outstanding common shares. As a result, these shareholders, acting together, have significant influence over most matters that require approval by Arbutus' shareholders, including the election of directors and approval of significant corporate transactions. Corporate actions might be taken even if other shareholders oppose them. This concentration of ownership might also have the effect of delaying or preventing a corporate transaction that other shareholders may view as beneficial.

If securities analysts do not publish research or reports about the business of Arbutus, or if they publish negative evaluations, the price of Arbutus' Common Shares could decline.

The trading market for the Arbutus Common Shares may be impacted by the availability or lack of research and reports that third-party industry or financial analysts publish about Arbutus. There are many large, publicly traded companies active in the biopharmaceutical industry, which may mean it will be less likely that Arbutus receives widespread analyst coverage. Furthermore, if one or more of the analysts who do cover Arbutus downgrade its stock, its stock price would likely decline. If Arbutus does not receive adequate coverage by reputable analysts that have an understanding of Arbutus' business and industry, it could fail to achieve visibility in the market, which in turn could cause its stock price to decline.

Item 1B. Unresolved Staff Comments

There are currently no unresolved staff comments.

Item 2. Properties

Our head office and principal place of business is located at 100-8900 Glenlyon Parkway, Burnaby, British Columbia, Canada, V5J 5J8. The Company leases a 51,000 square foot facility under an agreement that expires on July 31, 2019, but we have the option to extend the lease to 2024, 2029, and 2034. We believe that the total space available to us under our current lease will meet our needs for the foreseeable future and that additional space would be available to us on commercially reasonable terms if required.

Our U.S. Office is located at 3805 Old Easton Road, Doylestown, PA 18902, in approximately 2,600 square feet of leased space. On August 9, 2016, we signed a new lease agreement, effective November 1, 2016, subsequently amended to October 7, 2016, to move our U.S. operations to 701 Veterans Circle, Warminster, Pennsylvania. The new location has approximately 35,000 square feet of lab facilities and office space.

Item 3. Legal Proceedings

We are involved with various legal matters arising in the ordinary course of business. We make provisions for liabilities when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Such provisions are reviewed at least quarterly and adjusted to reflect the impact of any settlement negotiations, judicial and administrative rulings, advice of legal counsel, and other information and events pertaining to a particular case. Litigation is inherently unpredictable. Although the ultimate resolution of these various matters cannot be determined at this time, we do not believe that such matters, individually or in the aggregate, will have a material adverse effect on our consolidated results of operations, cash flows, or financial condition.

Acuitas Therapeutics Inc.

On August 29, 2016, Arbutus provided Acuitas with notice that Arbutus considered Acuitas to be in material breach of their cross-license agreement. The cross-license agreement provides that it may be terminated upon any material breach by the other party 60 days after receipt of written notice of termination describing the material breach in reasonable detail. On October 25, 2016, Acuitas filed a Notice of Civil Claim in the Supreme Court of British Columbia seeking an order that Arbutus perform its obligations under the cross license agreement, for damages ancillary to specific performance, injunctive relief, interest and costs. We dispute Acuitas' position; and filed our response within the time frame prescribed by the Court.

On January 10, 2017, we filed an application seeking an order to enjoin Acuitas from, *inter alia*, entering into any further agreements purporting to sublicense Arbutus' technology from the date of the order to the date of trial or further order from the court. On February 8, 2017, the Company announced that the Supreme Court of British Columbia granted Arbutus' request for a pre-trial injunction against Acuitas, preventing Acuitas from further sublicensing of Arbutus' lipid nanoparticle (LNP) technology until the end of October, or further order of the Court. Under the terms of the pre-clinical trial injunction, Acuitas is prevented from entering into any new agreements which include sublicensing of Arbutus' LNP.

University of British Columbia

Certain early work on liposomal delivery systems and related inventions was undertaken at Inex Pharmaceuticals Inc. and assigned to the University of British Columbia (UBC). These inventions are licensed to us by UBC under a license agreement initially entered into in 1998 and subsequently amended in 2001, 2006 and 2007. We have granted sublicenses to these inventions to Alnylam. Alnylam has in turn sublicensed these inventions back to us for discovery, development and commercialization of siRNA products.

On November 10, 2014, UBC filed a demand for arbitration against us, BCICAC File No.: DCA-1623. We received UBC's Statement of Claims on January 16, 2015. In its Statement of Claims, UBC alleges that it is entitled to $3.5 million in allegedly unpaid royalties based on publicly available information, and an unspecified amount based on non-public information. UBC also seeks interest and costs, including legal fees. Arbutus filed its Statement of Defense to UBC's Statement of Claims on April 27, 2015, denying that UBC is entitled to any unpaid royalties. Arbutus also filed a Counterclaim involving a patent application that Arbutus alleges UBC wrongly licensed to a third party rather than to Arbutus. Arbutus seeks any license payments for said application, and an exclusive worldwide license to said application. The proceeding has been bifurcated into phases, beginning with a liability phase addressing UBC's Claims and Arbutus' Counterclaim that is presently set for hearing from June 19-30, 2017.

Alnylam Pharmaceuticals, Inc.

Alnylam has a license to use our IP to develop and commercialize products and may only grant access to our LNP technology to its partners if it is part of a product sublicense. Alnylam's license rights are limited to patents that we have filed, or that claim priority to a patent that was filed, before April 15, 2010. Alnylam does not have rights to our patents filed after April 15, 2010 unless they claim priority to a patent filed before that date. Alnylam will pay low single digit royalties as Alnylam's LNP-enabled products are commercialized. Alnylam currently has three LNP-based products in clinical development: ALN-TTR02 (patisiran), ALN-VSP, and ALN-PCS02.

Our licensing agreement with Alnylam grants us IP rights for the development and commercialization of RNAi therapeutics for specified targets. In consideration for these three exclusive and 10 non-exclusive licenses, we have agreed to pay single-digit royalties to Alnylam on product sales, with milestone obligations of up to $8.5 million on the non-exclusive licenses and no milestone obligations on the three exclusive licenses. Alnylam has also pursued two other LNP-based products through clinical development: ALN-VSP (liver cancer), and ALN-PCS02 (hypercholesterolemia). Alnylam will pay Arbutus low single digit royalties based on commercial sales of Alnylam's LNP-enabled products.

Alnylam initiated an arbitration on August 6, 2013, as provided for under our licensing agreement, to resolve a matter related to a disputed $5 million milestone payment to Arbutus from Alnylam related to its ALN-VSP product. The arbitration proceeding with Alnylam concluded that Arbutus had failed to meet the milestone conditions necessary to demand the Alnylam $5 million payment to Arbutus, resulting in no milestone payment to Arbutus.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common shares trade on the NASDAQ Global Market under the symbol "ABUS" following our Company name change to Arbutus Biopharma Corporation on July 31, 2015. From November 15, 2010 to July 31, 2015 our common shares traded on the NASDAQ Global Market under the symbol "TKMR". Our common shares previously traded on the Toronto Stock Exchange (TSX) in Canada under the symbol "TKM". We voluntarily delisted from the TSX on March 3, 2015. As at March 14, 2017, there were 111 registered holders of common shares and 55,023,207 common shares issued and outstanding.

The following table shows the high and low intraday trading prices of our common shares on the NASDAQ Global Market and the TSX for the periods listed:

	NASDAQ High (US$)	NASDAQ Low (US$)	TSX High (C$)	TSX Low (C$)
Year Ended:				
December 31, 2016	$ 5.48	$ 2.35	N/A	N/A
December 31, 2015[(1)]	$ 26.73	$ 4.25	$ 33.76	$ 17.05
Quarter Ended:				
December 31, 2016	$ 3.56	$ 2.35	N/A	N/A
September 30, 2016	$ 4.49	$ 3.36	N/A	N/A
June 30, 2016	$ 5.48	$ 3.09	N/A	N/A
March 31, 2016	$ 4.71	$ 2.72	N/A	N/A
December 31, 2015	$ 6.74	$ 4.25	N/A	N/A
September 30, 2015	$ 12.46	$ 5.75	N/A	N/A
June 30, 2015	$ 19.61	$ 11.50	N/A	N/A
March 31, 2015[(1)]	$ 26.73	$ 14.50	$ 33.76	$ 17.05
Month Ended:				
February 28, 2017	$ 2.85	$ 2.45	N/A	N/A
January 31, 2017	$ 3.01	$ 2.35	N/A	N/A

Notes:

(1) Our common shares were voluntarily delisted from the Toronto Stock Exchange (TSX) as of the close of business on Tuesday, March 3, 2015. High and low trading prices shown in the table are for the period January 1, 2015 to March 2, 2015.

Material Modifications to the Rights of Security Holders/Use of Proceeds

Not applicable.

Purchase of Equity Securities by the Issuer and Affiliated Purchasers

Not applicable.

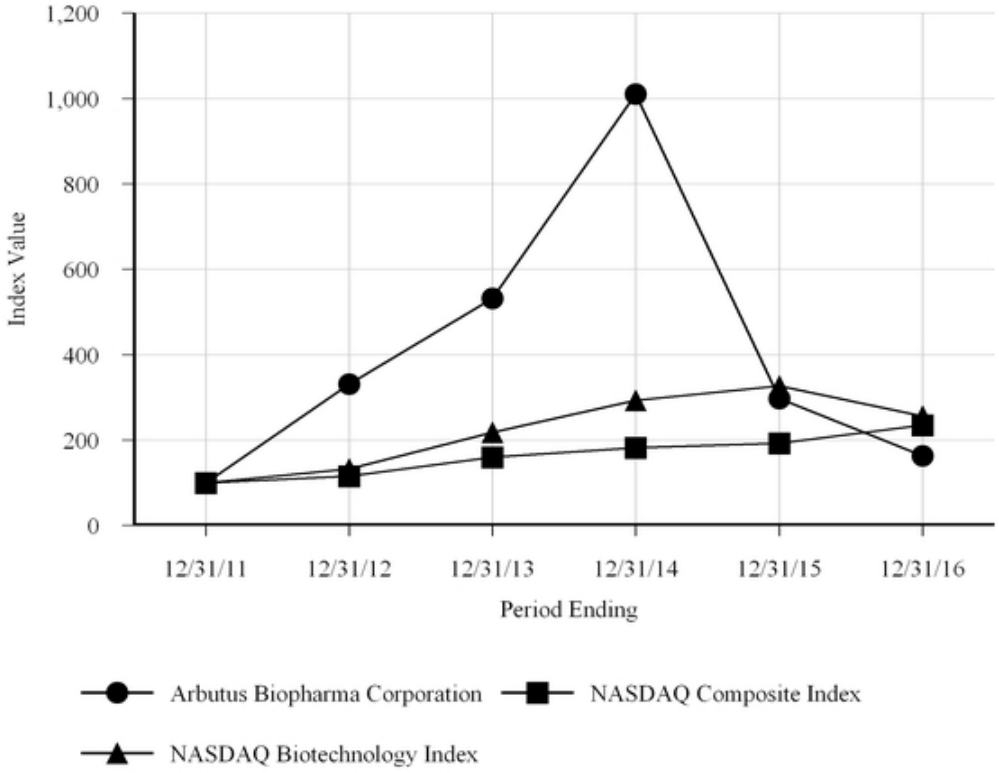
Recent Sales of Unregistered Securities

None.

Stock Performance Graph

The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that we specifically incorporate it by reference into such filing.

The following graph compares the cumulative shareholder return on an investment of US$100 in the Common Shares of the Company on the NASDAQ from December 31, 2011, with a cumulative total shareholder return on the NASDAQ Composite and NASDAQ Biotechnology Indices.



Geographic Breakdown of Shareholders

As of March 14, 2017, our shareholder register indicates that our common shares are held as follows:

Location	Number of Shares	Percentage of Total Shares	Number of Registered Shareholders of Record
Canada	16,358,047	29.7%	86
United States	22,650,936	41.2%	21
Other	16,014,224	29.1%	4
Total	55,023,207	100%	111

Our securities are recorded in registered form on the books of our transfer agent, CST Trust Company, located at 1600-1066 West Hastings Street, Vancouver, BC V6E 3X1. However, the majority of such shares are registered in the name of intermediaries such as brokerage houses and clearing houses (on behalf of their respective brokerage clients). We are permitted, upon request to our transfer agent, to obtain a list of our beneficial shareholders who do not object to their identities being disclosed to us. We are not permitted to obtain from our transfer agent a list of our shareholders who have objected to their identities being disclosed to us.

Shares registered in intermediaries were assumed to be held by residents of the same country in which the clearing house was located.

Dividends

We have not declared or paid any dividends on our common shares since the date of our incorporation. We intend to retain our earnings, if any, to finance the growth and development of our business and do not expect to pay dividends or to make any other distributions in the near future. Our board of directors will review this policy from time to time having regard to our financing requirements, financial condition and other factors considered to be relevant.

Item 6. Selected Financial Data

The following table presents selected financial data derived from Arbutus' audited consolidated financial statements for each of the five years for the period ending December 31, 2016. You should read this information in conjunction with our financial statements for the periods presented, as well as Item 1 " *Business* " and Item 7 " *Management's Discussion and Analysis of Financial Condition and Results of Operations* " included elsewhere in this Annual Report. Historical results are not necessarily indicative of future results.

Summary Financial Information
Under U.S. GAAP (in thousands of US dollars, except number of shares and per share amounts)

	Year Ended December 31,				
	2016	**2015**	**2014**	**2013**	**2012**
	$	**$**	**$**	**$**	**$**
Operating Data					
Revenue	1,491	24,873	14,953	15,465	14,105
Expenses	493,130	127,195	48,387	27,617	27,050
Loss from operations	(491,639)	(102,322)	(33,434)	(12,152)	(12,945)
Net income (loss)	(384,164)	(61,121)	(38,837)	(147,063)	29,611
Weighted average number of common shares—basic	53,074,401	45,462,324	21,603,136	15,303,000	13,728,000
Weighted average number of common shares—diluted	53,074,401	45,462,324	21,603,136	15,303,000	14,321,000
Income (loss) per common share—basic	(7.24)	(1.34)	(1.80)	(0.92)	2.16
Income (loss) per common share—diluted	(7.24)	(1.34)	(1.80)	(0.92)	2.07
Balance Sheet Data					
Total current assets	132,564	183,882	116,418	70,343	51,243
Total assets	275,919	712,291	118,178	71,716	52,595
Total current liabilities	10,585	10,578	20,206	12,522	10,954
Total long-term liabilities	62,329	154,034	9,937	—	722
Share capital	903,936	864,446	316,212	242,045	206,572
Total stockholders' equity	203,005	547,679	88,035	59,194	40,919
Number of shares outstanding	54,841,494	54,570,691	22,438,169	19,049,000	14,305,356

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

Arbutus is a publicly traded (NASDAQ Global Market: ABUS) therapeutic solutions company dedicated to discovering, developing and commercializing a cure for patients suffering from chronic HBV infection. To pursue our strategy of developing a curative combination regimen, we have assembled an HBV pipeline consisting of multiple drug candidates with complementary mechanisms of action. HBV represents a significant unmet medical need and is the cause of the most common serious liver infection in the world. The World Health Organization estimates that 350 million people worldwide are chronically infected, and other estimates suggest this could include approximately 2 million people in the United States. Given the complex biology of HBV, we believe combination therapies are the key to HBV treatment and a potential cure, and development can be accelerated when multiple components of a combination therapy regimen are controlled by the same company.

Arbutus' head office and principal place of business is located at 100-8900 Glenlyon Parkway, Burnaby, British Columbia, Canada, V5J 5J8. In August 2016, we entered into a lease agreement for approximately 35,000 square feet of space located at 701 Veterans Circle, Warminster, Pennsylvania. This facility includes a research and development laboratory and will represent Arbutus' primary U.S. site.

We continued the development of our lead clinical candidate ARB-1467 in 2016, and announced interim Phase II data demonstrating significant, and step-wise, additive reductions in serum HBsAg levels. The multiple dose data from this study are the first of their kind for an RNAi product candidate in patients with chronic HBV infection. We also advanced our second generation RNAi candidate ARB-1740 (RNAi 2.0) and our core protein/capsid assembly inhibitor AB-423 into clinical studies in 2017. We continued a number of research programs related to HBV and we presented preclinical in vivo data from our proprietary combinations in 2016.

Change in Functional Currency

Prior to January 1, 2016, our functional currency was the Canadian dollar. As such, all dollar amounts in this MD&A related to periods prior to and including the year ended December 31, 2015 are presented in U.S. dollars with the functional currency as the Canadian dollar. On January 1, 2016, our functional currency changed from the Canadian dollar to the U.S. dollar based on our analysis of changes in the primary economic environment in which we operate. The change in functional currency is accounted for prospectively from January 1, 2016 and financial statements for the periods prior to and including the year ended December 31, 2015 will not be restated for the change in functional currency. Past translation gains and losses from the application of the U.S. dollar as the reporting currency while the Canadian dollar was the functional currency are included as part of cumulative currency translation adjustment, which is reported as a component of shareholder's equity under accumulated other comprehensive loss.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The significant accounting policies that we believe to be most critical in fully understanding and evaluating our financial results are revenue recognition, stock-based compensation, and goodwill and intangible asset impairment. These accounting policies require us to make certain estimates and assumptions. We believe that the estimates and assumptions upon which we rely are reasonable, based upon information available to us at the time that these estimates and assumptions are made. Actual results may differ from our estimates. Our critical accounting estimates affect our net income or loss calculation.

Revenue Recognition / Our primary sources of revenue have been derived from research and development collaborations and contracts, and licensing fees comprised of initial fees and milestone payments. Payments received under research and development agreements and contracts, which are non-refundable, are recorded as revenue as services are performed and as the related expenditures are incurred pursuant to the agreement, provided collectability is reasonably assured. Revenue earned under research and development manufacturing collaborations where we bear some or all of the risk of a product manufacture failure is recognized when the purchaser accepts the product and there are no remaining rights of return. Revenue earned under research and development collaborations and contracts where we do not bear any risk of product manufacture failure is recognized in the period the work is performed. Revenue earned under contractual arrangements upon the achievement of substantive milestones is recognized in its entirety in the period the payment has been received. We evaluate whether milestones under research and development arrangements are substantive by considering: whether substantive uncertainty exists upon the execution of the arrangement; the event can only be achieved based in whole or in part on our performance or occurrence of a specific outcome resulting from our performance; any future performance required and payment is reasonable relative to all deliverables; and, payment terms in the arrangement. Initial fees and non-substantive milestone payments are

deferred and amortized into income over the estimated period of our involvement as we fulfill our obligations under our agreements.

The revenue that we recognize is a critical accounting estimate because of the volume and nature of the revenues we receive. Some of the research, development and licensing agreements that we have entered into contain multiple revenue elements that are to be recognized for accounting in accordance with our revenue recognition policy. We need to make estimates as to what period the services will be delivered with respect to up-front licensing fees and milestone payments received because these payments are deferred and amortized into income over the estimated period of our ongoing involvement. The actual period of our ongoing involvement may differ from the estimated period determined at the time the payment is initially received and recorded as deferred revenue. This may result in a different amount of revenue that should have been recorded in the period and a longer or shorter period of revenue amortization. When an estimated period changes we amortize the remaining deferred revenue over the estimated remaining time to completion. The rate at which we recognize revenue from payments received for services to be provided under research and development agreements depends on our estimate of work completed to date and total work to be provided. The actual total services provided to earn such payments may differ from our estimates.

Our revenue for 2016 was $1.5 million (2015 - $24.9 million, 2014 - $15.0 million). Our deferred revenue balance at December 31, 2016 is $0 (December 31, 2015 - $1.1 million).

Stock-based compensation / The stock-based compensation that we record is a critical accounting estimate due to the value of compensation recorded, the volume of our stock option activity, and the many assumptions that are required to be made to calculate the compensation expense.

Compensation expense is recorded for stock options issued to employees and directors using the fair value method. We must calculate the fair value of stock options issued and amortize the fair value to stock compensation expense over the vesting period, and adjust the expense for stock option forfeitures and cancellations. We use the Black-Scholes model to calculate the fair value of stock options issued which requires that certain estimates, including the expected life of the option and expected volatility of the stock, be made at the time that the options are issued. This accounting estimate is reasonably likely to change from period to period as further stock options are issued and adjustments are made for stock option forfeitures and cancellations. Effective October 1, 2016, we early adopted ASU 2016-09 and elected an entity-wide accounting policy to recognize forfeitures as they occur. The term "forfeitures" is distinct from "cancellations" or "expirations" and represents only the unvested portion of the surrendered stock option. For the purpose of calculating fair value, the expected life of stock options granted is five years for employees and eight years for directors and executives. We amortize the fair value of stock options using the straight-line method over the vesting period of the options, generally a period of three years for employees and immediate vesting for directors.

We recorded stock-based compensation expense in 2016 of $39.2 million (2015 - $22.1 million, 2014 - $3.3 million) which includes compensation expense related to the expiration of repurchase rights on certain shares held by the founders of Arbutus Inc. of $32.0 million - refer to Note 2 to our consolidated financial statements.

Liability-classified stock option awards valuation / The valuation of liability-classified stock option awards is a critical accounting estimate due to the value of liabilities recorded and the many assumptions that are required to calculate the liability, resulting in the classification of our liability-classified stock option awards as level 3 financial instruments.

We account for liability-classified stock option awards ("liability options") under ASC 718 - Compensation - Stock Compensation, under which awards of options that provide for an exercise price that is not denominated in: (a) the currency of a market in which a substantial portion of the Company's equity securities trades, (b) the currency in which the employee's pay is denominated, or (c) the Company's functional currency, are required to be classified as liabilities. Due to the change in functional currency as of January 1, 2016, certain stock option awards with exercise prices denominated in Canadian dollars changed from equity classification to liability classification. As such, the historic equity classification of these stock option awards changed to liability classification effective January 1, 2016. The change in classification resulted in reclassification of these awards from additional paid-in capital to liability-classified options.

We classify liability options in our consolidated balance sheet as liabilities and revalue them at each balance sheet date. Any change in valuation is recorded in our statement of operations as increases or decreases in share-based compensation expense or additional paid-in capital until settlement or cancellation. We use the Black-Scholes pricing model to value the options. Determining the appropriate fair-value model and calculating the fair value of liability options requires considerable judgment. A small change in the estimates used may cause a relatively large change in the estimated valuation. Due to ongoing changes in our business and general stock market conditions, we continuously assess our fair value assumptions. We adjust the estimated expected life as appropriate, based on the pattern of exercises of our stock option awards. As at the reclassification date of January 1, 2016 and the period ended December 31, 2016, for the purpose of calculating the fair value, the weighed-average expected life of outstanding options was 5.3 and 3.6 years, respectively; the weighted-average risk-free interest rate was 0.86% and 0.88%, respectively; the weighted-average volatility was 97.8% and 66.18%, respectively; and the dividend yield was 0% based on no history of dividend payment by the Company. For the year ended December 31, 2016, we recorded a total share-based compensation expense related to the change in fair value of liability-classified options of $997,000.

Goodwill and intangible assets - Impairment / Intangible assets classified as indefinite-lived and goodwill are not amortized, but are evaluated for impairment annually using a measurement date of December 31. In addition, if there is a major event indicating that the carrying value of an asset may not be recoverable, then management will perform an impairment test in an interim period by comparing the discounted cash flow values to each asset's carrying value to determine if a write down is necessary. Such indicators include, but are not limited to on an ongoing basis: (a) industry and market considerations such as an increased competitive environment or an adverse change in legal factors including an adverse assessment by regulators; (b) an accumulation of costs significantly in excess of the amount originally expected for the development of the asset; (c) current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of the asset; (d) adverse research and development program results; and (e) if applicable, a sustained decrease in share price.

In assessing impairment, significant judgments are required to be made by management to estimate the timing and extent of future net cash flows, appropriate discount rates, probability of program success and other estimates and assumptions that could materially affect the determination of fair value. These judgments include the use of, but are not limited to: projected results of operations and forecast cash flows based on our corporate budgets as approved by our Board of Directors, third party forecasts and data and other macroeconomic indicators that forecasts market conditions and our estimated future revenues and growth, market-based discount rates and other market-comparative data. As assumptions related to the probability of program success and timing and amount of potential future cash flows related to these programs is highly uncertain due to the unpredictable nature of each phase of these programs, management risk adjusts the estimated cash flows to reflect these uncertainties.

During the year ended December 31, 2016, we recorded a total net impairment charge of $148.2 million (impairment charge of $253.2 million less a corresponding income tax benefit of $105.0 million) against our identified intangible assets. The total impairment charge included $156.3 million for the discontinuance of the ARB-1598 program in the Immune Modulator drug class as well as a delay in our research and development of our cccDNA Sterilizer drug class recorded during the quarter ended June 30, 2016. An additional charge of $96.9 million resulted from our annual impairment assessment performed at December 31, 2016 related to a change in management's estimation of cost of capital.

We perform our annual impairment analysis at December 31st each year. At December 31, 2016, we re-assessed the discount rate used in our valuation models used to assess the carrying value of goodwill and intangible assets for impairment as a result of the sustained discrepancy between our market capitalization, carrying values and fair values. As a result, we have adjusted our company-specific risk premium to our market-derived weighted average cost of capital, which has increased our discount rate used in the annual impairment assessment at December 31, 2016. Following the process prescribed by the accounting standard, intangible assets are first tested before assessing goodwill for impairment. The change in discount rate has resulted in an intangible assets impairment charge of $96.9 million recorded at December 31, 2016.

Goodwill is subject to a two-step impairment test. The first step compares the fair value of the reporting unit to the carrying amount, which includes goodwill. If the carrying amount exceeds the fair value of the reporting unit, the second step measures the amount of the impairment loss. As part of the impairment evaluation of goodwill, we identified only one reporting unit to which the total carrying amount of goodwill has been assigned. In estimating the fair value of the reporting unit and the recoverable value of the intangible assets, management prepared a discounted cash flow model using its current best estimates of future net cash flows, probability of program success, and a discount rate appropriate to the business as well as considering the Company's market capitalization, market comparatives and analysts forecasts. The cash flow projections are based on forecasts development by management that include revenue and cost projections, capital spending trends, and investment in working capital to support anticipated revenue growth. These assumptions are updated at least annually and reviewed by management. The selected discount rate considers the risk and nature of cash flows and the rates of return market participants would require. The probability of program success is determined based on management's best estimates and includes consideration of available industry data. Our methodology for determining fair values remained consistent for the periods presented.

The impairment of certain intangible assets was considered a triggering event requiring an interim impairment test of goodwill at June 30, 2016. Based on the interim analysis that was completed, goodwill was not considered to be impaired at the June 30, 2016 interim reporting date.

At December 31, 2016, we re-assessed the discount rate used in our valuation models used to assess the carrying value of goodwill and intangible assets for impairment as a result of the sustained discrepancy between our market capitalization, carrying values and fair values. As a result of the increased discount rate, the carrying value of the reporting unit determined in step one of the impairment assessment exceeded the fair value of the reporting unit, and as such we proceeded to the second step of the impairment test, which measures the amount of an impairment charge. In the second step, the carrying value of goodwill is compared to the fair value of goodwill that is implied by performing a hypothetical purchase price allocation based on identifiable assets at the date of the assessment. Given that significant value has been assigned to pre-merger research programs, intellectual property and royalty stream entitlements, the remaining implied value of goodwill, after applicable deferred taxes, is reduced to $24.4 million in the step two analysis. As a result, we recorded a goodwill impairment for $138.1 million in the year ended December 31, 2016.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions and factors, and any key assumptions in the cash flow projections are interdependent on each other. A change in any one or combination of these assumptions could impact the estimated fair value of the reporting unit. Although we believe our assumptions are reasonable, the significant level of judgment needed to determine our assumptions, the uncertainty inherent in these assumptions and the extended time frame over which we are required to make our estimates, increases the risk that actual results will vary significantly. Given the dependency of our cash flow models on the successful development, production and sale of products from our existing programs, if any significant programs are unsuccessful then, excluding other possible changes in our forecasts, our estimated future cash flows will be reduced and such reduction may be significant enough to result in an impairment of the carrying value of our intangible assets. The outcome of our programs are subject to a variety of risks, including but not limited to, technological risk associated with IPR&D assets, dependency on regulatory approval and competitive, legal and other regulatory forces. See "Risk Factors" in our annual report on Form 10-K for additional risk factors.

SUMMARY OF QUARTERLY RESULTS

The following table presents our unaudited quarterly results of operations for each of our last eight quarters. These data have been derived from our unaudited condensed consolidated financial statements, which were prepared on the same basis as our annual audited financial statements and, in our opinion, include all adjustments necessary, consisting solely of normal recurring adjustments, for the fair presentation of such information.

(in millions $ except per share data) – unaudited

	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015	Q3 2015	Q2 2015	Q1 2015
Revenue								
Collaborations and contracts:								
DoD	$—	$—	$—	$—	$(0.1)	$2.0	$1.9	$3.0
Monsanto	—	—	—	—	3.9	0.3	0.3	0.2
Dicerna	—	0.1	—	0.1	0.7	0.7	0.2	0.2
	—	0.1	—	0.1	4.5	3.0	2.4	3.4
Monsanto licensing fees and milestone payments	—	—	—	—	7.9	0.7	0.8	0.8
Dicerna licensing fee	—	0.6	0.2	0.2	0.3	0.3	0.3	0.3
Other milestone and royalty payments	(0.2)	—	0.1	0.3	0.1	0.1	0.1	0.1
Total revenue	**(0.2)**	**0.7**	**0.3**	**0.6**	**12.7**	**4.1**	**3.6**	**4.6**
Expenses	(257.2)	(19.7)	(195.6)	(20.6)	(24.4)	(62.2)	(17.9)	(22.7)
Other income (losses)	(1.4)	(0.6)	0.4	4.1	5.5	14.0	(0.5)	6.0
Loss before income taxes	**(258.8)**	**(19.6)**	**(194.9)**	**(15.9)**	**(6.2)**	**(44.2)**	**(14.8)**	**(12.1)**
Income tax benefit	40.1	—	64.9	—	1.0	15.2	**—**	**—**
Net loss	**$(218.7)**	**$(19.6)**	**$(130.0)**	**$(15.9)**	**$(5.2)**	**$(29.0)**	**$(14.8)**	**$(12.1)**
Basic and diluted net loss per share	**$(4.05)**	**$(0.37)**	**$(2.47)**	**$(0.31)**	**$(0.10)**	**$(0.57)**	**$(0.27)**	**$(0.40)**

Quarterly Trends

Revenue / Our revenue is derived from research and development collaborations and contracts, licensing fees, milestone and royalty payments. Over the past two years, our principal source of ongoing revenue was our contract with the DoD to advance TKM-Ebola which began in July 2010 and terminated in October 2015, and our contract with Monsanto which ended in December 2016. At present we do not have any significant revenue generating collaborative contracts.

In Q3 2010 we signed a contract with the DoD to develop TKM-Ebola and have since incurred significant program costs related to equipment, materials and preclinical and clinical studies. These costs are included in our research, development, collaborations and contracts expenses. These costs are fully reimbursed by the DoD, and this reimbursement amount is recorded as revenue. DoD revenue from the TKM-Ebola program also compensates us for labor and overheads and provides an incentive fee. As described in our critical accounting policies in our Annual Report, we estimate the labor and overhead rates to be charged under our TKM-Ebola contract and update these rate estimates throughout the year. In July 2015, we announced that activities had been suspended and in Q4 2015, the DoD contract was terminated. We are currently conducting contract close out procedures with the DoD.

In January 2014, we signed an Option Agreement and a Services Agreement with Monsanto for the use of our proprietary delivery technology and related intellectual property in agriculture. Over the option period, which was expected to be approximately four years, Monsanto were to make payments to us to maintain their option rights. In 2014, we received a total of $17.5 million for the use of technology and the completion of specified program developments. In 2015, we received an additional $1.8 million related to research services. The payments were being recognized as revenue on a straight-line basis over the option period. In Q4 2015, we did not receive further payments from Monsanto for the continuance of research activities under the arrangement. As such, we revised our estimated option period end date to December 31, 2015, resulting in the full release of Monsanto deferred revenue and recognition of $11.8 million in Monsanto revenue in Q4 2015. In March 2016, Monsanto exercised its option to acquire 100% of the outstanding shares of Protiva Agricultural Development Company Inc. (PADCo), for which Monsanto paid us an exercise fee of $1.0 million in Q1 2016. We recorded this receipt in Q1 2016 as Other Income.

In November 2014, we signed a License Agreement and a Development and Supply Agreement with Dicerna for the use of our proprietary delivery technology and related technology intended to develop, manufacture, and commercialize products related to treatment of PH1. In Q4 2014, we received an upfront payment of $2.5 million, which was recognized over the period over which we provided services to Dicerna. In September 2016, Dicerna announced the discontinuation of their DCR-PH1 program using our technology. As such, in Q3 2016, we recognized the remaining balance of Dicerna license fee revenue of $0.6 million, as well as other Dicerna collaboration revenue for the provision of development services.

Under our licensing arrangements with Alnylam and Alexion we have the potential to earn further development and commercial milestones and royalties for the use of our LNP technology.

In 2013, we began to earn royalties from Spectrum with respect to the commercial sales of Marqibo.

Expenses / Expenses consist primarily of clinical and pre-clinical trial expenses, personnel expenses, consulting and third party expenses, reimbursable collaboration expenses, consumables and materials, patent filing expenses, facilities, stock-based compensation and general corporate costs. Impairment of intangible assets is also included in operating expenses.

Setting aside intangible asset and goodwill impairment charges in Q3 2015, Q2 2016, and Q4 2016 and acquisition costs in Q1 2015, there has been a steady underlying increase in our expenses for the past eight quarters. In Q1 2015, we initiated a Phase I Clinical Trial for TKM-HBV and incurred significant material costs related to the TKM-Ebola-Guinea contract with the DoD. In addition, we incurred $9.3 million in costs for professional fees related to completing the merger with Arbutus Inc. (formerly OnCore). In Q2 2015, we incurred an incremental $2.9 million in R&D expenses related to our HBV programs acquired through the merger with Arbutus Inc. In Q3 2015, we incurred $5.5 million in incremental R&D expenses primarily related to an increase in HBV and HCC clinical trial expenses due to an increase in patient enrollment and a ramp up in spending on Arbutus Inc. HBV programs. Also in Q3 2015, we recorded an estimated impairment charge of $38.0 million as we discontinued our cyclophilin inhibitor program based on our conclusion that cyclophilins do not play a meaningful role in HBV biology. From Q4 2015 to Q4 2016, we continued to incur R&D expense related to our HBV programs, including initiation of our ARB-1467 and ARB-1740 in Phase 2 clinical trials and costs incurred in Q4 2016 preparing to advance our AB-423 to Phase 1 clinical trials. In Q2 2016, we recorded an impairment charge of $156.3 million (before deferred tax) for the discontinuance of the ARB-1598 program in the Immune Modulators drug class after extensive research and analysis, as well as a delay for additional exploration of the biology of the cccDNA Sterilizer drug class. In Q4 2016, we recorded an impairment charge of $96.9 million for our intangible assets (before deferred tax) and impairment charge of $138.1 million for our goodwill which resulted from a change in the estimated cost of capital and resulting discount rate used in our annual impairment assessment. This change in the discount rate was made to address the sustained discrepancy between our market capitalization and the carrying value of intangible assets and goodwill - see Note 2 to our consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data". Following the merger with Arbutus Inc., we have recorded to date non-cash compensation expense of $48.7 million related to the expiry of repurchase rights on shares issued as part of the consideration paid for the merger with Arbutus Inc. - see "Results of Operations".

Other income (losses) / Other income (losses) consist primarily of changes in the fair value of our warrant liability and contingent consideration and foreign exchange differences.

We have recorded large foreign exchange gains and losses over the past eight quarters including a gain of $11.8 million in Q3 2015. Up until December 31, 2015, our foreign exchange gains and losses largely related to U.S. dollar cash and investment holdings and fluctuations in the U.S./Canadian dollar exchange rate. We expect to record future foreign exchange gains and losses, on conversion from the Canadian dollar, to the U.S. dollar, as the functional currency for the company changed from the Canadian dollar to the U.S. dollar effective January 1, 2016. This change in functional currency results in a smaller proportion of our cash and investments being held in a foreign currency, and therefore, reduces the level of gains and losses we expect to record in this respect.

In Q1 2016, other income included a $1.0 million gain on disposition of financial instrument related to the option exercise fee we received from Monsanto for the acquisition of PADCo in March 2016.

See Results of Operations below for a discussion of the contingent consideration charge.

Income tax benefit / Income tax benefit relates to the decrease in deferred tax liability associated with the impairment charge recorded on acquired intangible assets. In Q3 2015, we recorded $15.2 million of income tax benefit for the estimated impairment of our cyclophilin inhibitor program, OCB-030. In Q4 2015, we recorded a further $1.0 million in income tax benefit due to the revision of fair value of cyclophilins. In Q2 2016 and in Q4 2016, we recorded $64.8 million and $40.1 million in income tax benefit associated with the impairment charges described above.

Net loss / Fluctuations in our net loss are explained by changes in revenue, expenses, other income (losses) and income tax as discussed above.

Fourth quarter of 2016 / Our Q4 2016 net loss was $242.8 million ($4.49 basic and diluted loss per common share) as compared to a net loss of $5.2 million ($0.10 basic and diluted per common share) for Q4 2015.

Revenue in Q4 2016 was minimal following the termination of our contract with Dicerna in September 2016.

Research, development, collaborations and contracts expenses increased to $17.6 million in Q4 2016 as compared to $14.9 million in Q4 2015. In Q4 2016, we incurred incremental expenses related to our HBV programs as we continue to move candidates through clinical trials, and advancing multiple research candidates through pre-clinical evaluations. In Q4 2016, we initiated our ARB-1740 in Phase 2 clinical trials, and incurred costs preparing to advance AB-423 to Phase 1 clinical trials. In addition, we recorded $3.0 million in non-cash compensation expense related to the expiry of repurchase rights on shares issued as part of the consideration paid for the merger with Arbutus Inc. (refer to notes to the financial statements), of which $1.5 million has been included as part of research, development, collaborations and contracts expense, and $1.5 million included as part of general and administrative expense. In Q4 2016, we recorded an impairment charge of $96.9 million for our intangible assets (before deferred tax) and impairment charge of $138.1 million for our goodwill which resulted from a change in the estimated discount rate used in our annual impairment assessment. This change in the discount rate was made to address the sustained discrepancy between our market capitalization and the carrying value of intangible assets - see Note 2 to our consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data".

Other gains in Q4 2016 primarily consists of a foreign exchange gain of $1.1 million on our Canadian dollar funds.

RESULTS OF OPERATIONS

The following summarizes the results of our operations for the 2016, 2015, and 2014 fiscal years, in millions except per share data:

	2016	2015	2014
Total revenue	**$ 1.5**	$ 24.9	$ 15.0
Operating expenses	**493.1**	127.2	48.4
Loss from operations	**(491.6)**	(102.3)	(33.4)
Net loss	**(384.2)**	(61.1)	(38.8)
Basic loss per share	**(7.24)**	(1.34)	(1.80)
Diluted loss per share	**(7.24)**	(1.34)	(1.80)
Total assets	**275.9**	712.3	118.2
Total liabilities	**72.9**	164.6	30.1
Total non-current liabilities	**62.3**	154.0	9.9
Deficit	**(651.1)**	(267.0)	(205.9)
Accumulated other comprehensive loss	**(49.8)**	(49.8)	(22.3)
Total stockholders' equity	**$ 203.0**	$ 547.7	$ 88.0

Year ended December 31, 2016 compared to the year ended December 31, 2015

For the fiscal year ended December 31, 2016, our net loss was $384.2 million ($7.24 basic and diluted loss per common share) as compared to a net loss of $61.1 million ($1.34 basic and diluted loss per common share) for 2015.

Revenue / Revenue is summarized in the following table, in millions:

	2016	% of Total	2015	% of Total
Collaborations and contracts				
DoD	**$ —**	**—%**	$ 6.8	27%
Monsanto	**—**	**—%**	4.7	19%
Dicerna	**0.2**	**13%**	1.8	7%
Total collaborations and contracts	**0.2**	**13%**	13.3	53%
Monsanto licensing fees and milestone payments	**—**	**—%**	10.3	42%
Dicerna licensing fee	**1.1**	**73%**	1.1	4%
Other milestone and royalty payments	**0.2**	**14%**	0.2	1%
Total revenue	**$ 1.5**		$ 24.9	

Revenue contracts are described in more detail in "Item 1. Overview".

DoD revenue

In July 2015, we announced that Ebola related activities were being suspended and, in Q4 2015, we received formal notification from the DoD terminating the contract, subject to the completion of certain post-termination obligations. We do not expect to record significant revenue from the DoD contract after December 31, 2015 and did not receive any revenue from the DoD contract in 2016.

Monsanto revenue

In January 2014, we signed an Option Agreement and a Services Agreement (together, the "Agreements") with Monsanto. Under the Agreements, Monsanto had an option to obtain a license to use our proprietary delivery technology and related intellectual property for use in agriculture.

Under the Agreements, we established a wholly-owned subsidiary, PADCo. We determined that PADCo was a variable interest entity (“VIE”); however, Monsanto was the primary beneficiary of the arrangement. PADCo was established to perform research and development activities, which were funded by Monsanto in return for a call option to acquire the equity or all of the assets of PADCo. On March 4, 2016, Monsanto exercised its option to acquire 100% of the outstanding shares of PADCo and paid us an option exercise fee of $1.0 million. From the acquisition of PADCo, Monsanto received a worldwide, exclusive right to use our proprietary delivery technology in the field of agriculture. We recorded the exercise fee received as gain on disposition of financial instrument on our consolidated statement of operations and comprehensive loss for the year ended December 31, 2016.

Dicerna revenue

In November 2014, we signed a License Agreement and a Development and Supply Agreement with Dicerna for the use of our proprietary delivery technology and related technology intended to develop, manufacture, and commercialize products related to the treatment of PH1. Licensing fee revenue recognized for the year ended December 31, 2015 relates to the earned portion of the upfront payment of $2.5 million for the use our of technology, which was being recognized over the period over which we provided services to Dicerna. In September 2016, Dicerna announced the discontinuation of their DCR-PH1 program using the Company's technology. As such, we revised the estimated completion date of performance period from March 2017 to September 30, 2016, at which time we had no further remaining performance obligations. This resulted in the recognition of $1.1 million in Dicerna license fee revenue for the year ended December 31, 2016.

Other milestone and royalty payments

Under our licensing arrangements with Alnylam and Alexion we have the potential to earn further development and commercial milestones and royalties for the use of our LNP technology.

In September 2013, Spectrum announced that they had shipped the first commercial orders of Marqibo. We continue to earn royalties on the sales of Marqibo, which uses a license to our technology.

Expenses / Expenses are summarized in the following table, in millions:

		2016	**% of Total**		2015	% of Total
Research, development, collaborations and contracts	**$**	**61.3**	**12%**	$	51.5	40%
General and administrative		**39.4**	**8%**		26.4	21%
Depreciation		**1.1**	**—%**		0.6	—%
Acquisition costs		**—**	**—%**		9.7	8%
Impairment of intangible assets		**253.2**	**51%**	$	39.0	31%
Impairment of goodwill		**138.1**	**28%**	$	—	—%
Total operating expenses	**$**	**493.1**		$	127.2	

Research, development, collaborations and contracts

Research, development, collaborations and contracts expenses consist primarily of clinical and pre-clinical trial expenses, personnel expenses, consulting and third party expenses, consumables and materials, as well as a portion of stock-based compensation and general overhead costs.

R&D expenses increased during 2016 as compared to 2015 as we increased our spending on our HBV programs as we continue to advance them through the clinic in 2016 when we initiated Phase 2 clinical trials for ARB-1467 and ARB-1740, and prepared to advance AB-423 to Phase 1 clinical trial. We also continue to incur incremental costs related to an increase in activities for research and preclinical HBV programs, focusing on advancing the development of our candidates to support future clinical combination studies.

R&D compensation expense increased in 2016 as compared to 2015 due to an increase in the number of employees in support of our expanded portfolio of product candidates, as well as from our merger with Arbutus Inc. In addition, in the year ended December 31, 2016, we incurred a total of $32.0 million of non-cash compensation expense related to the expiry of repurchase rights on shares issued as part of the consideration paid for the merger with Arbutus Inc. (see table of quarterly charges below and refer to notes to the financial statements for further details), of which $6.0 million has been included as part of research, development, collaborations and contracts expense, and $26.0 million included as part of general and administrative expense.

A significant portion of our research, development, collaborations and contracts expenses are not tracked by project as they benefit multiple projects or our technology platform and because our most-advanced programs are not yet in late-stage clinical development. However, our collaboration agreements contain cost-sharing arrangements pursuant to which certain costs incurred under the project are reimbursed. Costs reimbursed under collaborations typically include certain direct external costs and hourly or full-time equivalent labor rates for the actual time worked on the project. In addition, we have been reimbursed under government contracts for certain allowable costs including direct internal and external costs. As a result, although a significant portion of our research, development, collaborations and contracts expenses are not tracked on a project-by-project basis, we do track direct external costs attributable to, and the actual time our employees worked on, our collaborations and government contracts.

General and administrative

General and administrative expenses increased in 2016 compared to 2015 due largely to an increase in compensation expense linked to our increase in employee base and incremental corporate expenses to support the growth of the Company following the completion of our merger with Arbutus Inc. This includes a non-cash compensation expense of $26.0 million we incurred related to the expiry of repurchase rights on shares issued as part of consideration paid for the merger with Arbutus Inc. (see above). In Q2 2016, we incurred an acceleration of incremental non-cash compensation expense due to the expiration of repurchase rights triggered by the departure of two of the four Arbutus Inc. founders. The following table summarizes the non-cash compensation expense recorded related to the expiry of repurchase rights, in millions:

	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015	Q3 2015	Q2 2015	Q1 2015
Research and development	$ 1.5	$ 1.5	$ 1.5	$ 1.5	$ 1.5	$ 1.4	$ 1.0	$ 0.3
General and administrative	1.5	1.5	18.5	4.5	4.5	4.3	3.1	0.9
Total non-cash compensation for repurchase rights expiration	$ 3.0	$ 3.0	$ 20.0	$ 6.0	$ 6.0	$ 5.7	$ 4.1	$ 1.2

Acquisition costs

In 2015, we incurred $9.7 million in costs for professional fees related to completing the merger with Arbutus Inc. - see "Item 1. Overview". This cost is specific to the merger with Arbutus Inc., and such costs are only incurred when a business combination occurs.

Impairment of intangible assets and goodwill

For the year ended December 31, 2016, we recorded a net impairment charge of $148.2 million on intangible assets ($253.2 million less deferred taxes of $105.0 million). $156.3 million was recorded in the second quarter for the discontinuance of the ARB-1598 program in the Immune Modulator drug class after extensive research and analysis, as well as a delay for additional exploration of the biology of the cccDNA Sterilizer drug class. A further $96.4 million was recorded in the fourth quarter as a result of a change in the estimated cost of capital and resulting discount rate used in our annual impairment assessment. This change in discount rate was made to address the sustained discrepancy between our market capitalization and the carrying value of our intangible assets. For the year-ended December 31, 2015, we recorded an impairment charge of $39.0 million based on our decision to discontinue our cyclophilin inhibitors program, OCB-030.

On December 31, we performed our annual impairment analysis for goodwill and recorded an impairment of $138.1 million for the year ended December 31, 2016. As discussed above, we re-assessed the discount rate used in our valuation models used to assess the carrying value of goodwill and intangible assets for impairment as a result of the sustained discrepancy between market capitalization, carrying values and fair values.

Other income (losses) / Other income (losses) are summarized in the following table, in millions:

		2016		2015
Interest income	**$**	**1.4**	$	0.7
Foreign exchange gains		**1.1**		21.8
Gain on disposition of financial instrument		**1.0**		—
Decrease in fair value of warrant liability		**0.5**		3.3
Increase in fair value of contingent consideration		**(1.6)**		(0.8)
Total other income (losses)	**$**	**2.4**	$	25.0

Foreign exchange gains

On January 1, 2016, our functional currency changed from the Canadian dollar to the U.S. dollar based on our analysis of changes in the primary economic environment in which we operate. We will continue to incur substantial expenses and hold cash and investment balances in Canadian dollars, and as such, will remain subject to risks associated with foreign currency fluctuations. For the year ended December 31, 2016, we recorded a foreign exchange gain of $1.1 million which is primarily an unrealized gain related to an appreciation in the value of our Canadian dollar funds from the previous period, when translated to our functional currency of U.S. dollars.

Gain on disposition of financial instrument

On March 4, 2016, Monsanto exercised its option to acquire 100% of the outstanding shares of our wholly-owned subsidiary, PADCo, as described above and paid us an exercise fee of $1.0 million.

Decrease in fair value of warrant liability

In conjunction with equity and debt financing transactions in 2011 and 2012, we issued warrants to purchase our common share. We are accounting for the warrants under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. At each balance sheet date the warrants are revalued using the Black-Scholes model and the change in value is recorded in the consolidated statement of operations and comprehensive income (loss). In June 2016, the warrants from our 2011 debt financing expired and the fair value of unexercised warrants were recorded in decrease in fair value of warrant liability for the year ended December 31, 2016.

Generally, a decrease in our share price from the previous reporting date results in a decrease in the fair value of our warrant liability and vice versa.

We expect to see future changes in the fair value of our warrant liability and these changes will largely depend on the change in the Company's share price, and, to a lesser extent, any change in our assumed rate of share price volatility, our assumptions for the expected lives of the warrants and warrant exercises.

Increase in fair value of contingent consideration

The contingent consideration represents the estimated regulatory, development and sales milestone payments payable to the previous Enantigen shareholders. Enantigen was acquired by Arbutus Inc. in 2014. As at the acquisition date of Arbutus Inc., the contingent consideration had an estimated fair value of approximately $6.7 million. Contingent consideration is a financial liability, and we determine its fair value at each reporting period with any changes in fair value from the previous reporting period recorded in the statement of operations and comprehensive loss. For the period ended December 31, 2016, we performed an evaluation of the fair value of the contingent consideration using the probability weighted assessment of likelihood of milestone payments as described above and determined the fair value of the contingent consideration has increased by $1.6 million to $9.1 million from $7.5 million as at December 31, 2015. The increase in fair value has been recorded in other losses in the statement of operations and comprehensive loss for the year ended December 31, 2016.

Income tax benefit

For the year ended December 31, 2016, we recorded an income tax benefit of $105.0 million due to the decrease in deferred tax liability resulting from the impairment charge to intangible assets.

Year ended December 31, 2015 compared to the year ended December 31, 2014

For the fiscal year ended December 31, 2015, our net loss was $61.1 million ($1.34 basic and diluted loss per common share) as compared to a net loss of $38.8 million ($1.80 basic and diluted loss per common share) for 2014.

Revenue / Revenue is summarized in the following table, in millions:

		2015	**% of Total**		2014	% of Total
Collaborations and contracts						
DoD	**$**	**6.8**	**27%**	$	8.4	56%
Monsanto		**4.7**	**19%**		1.1	7%
BMS		**—**	**—%**		1.7	12%
Dicerna		**1.8**	**7%**		0.5	3%
Other RNAi collaborators		**—**	**—%**		—	—%
Total collaborations and contracts		**13.3**	**53%**		11.7	78%
Monsanto licensing fee		**10.3**	**41%**		2.7	18%
Dicerna licensing fee		**1.1**	**4%**		0.1	1%
Other milestone and royalty payments		**0.3**	**1%**		0.4	3%
Total revenue	**$**	**24.9**		$	15.0	

DoD revenue

In July 2015, we announced that Ebola related activities were being suspended and, in Q4 2015, we received formal notification from the DoD terminating the contract, subject to the completion of certain post-termination obligations. We do not expect to record significant revenue from the DoD contract after December 31, 2015.

Monsanto revenue

In January 2014, we received $14.5 million, of which $4.5 million relates to research services and $10.0 million for the use of our technology. In June and October 2014, we received payments of $1.5 million each, following the completion of specified program developments. In May and September 2015, we received $1.05 million and $0.75 million for research services. We were recognizing this revenue on a straight-line basis over the option period. As we did not receive further payments from Monsanto for the continuance of research activities under the arrangement, we revised our estimated option period end date as December 31, 2015, resulting in the full release of Monsanto deferred revenue of $11.8 million, resulting in the recognition of $15.0 million in Monsanto revenue for the year ended December 31, 2015.

Dicerna revenue

In November 2014, we signed a License Agreement and a Development and Supply Agreement with Dicerna for the use of our proprietary delivery technology and related technology intended to develop, manufacture, and commercialize products related to the treatment of PH1. Licensing fee revenue recognized for the year-ended December 31, 2015 relates to the earned portion of the upfront payment of $2.5 million for the use our of technology, which was being recognized over the period over which we provide services to Dicerna, estimated to complete in March 2017. Collaboration revenue for the year ended December 31, 2015 relates to inventory manufactured for, and services provided to, Dicerna.

BMS revenue

In May 2010 we signed a formulation agreement with BMS under which BMS paid us $3.0 million to make a certain number of LNP formulations over the following four year period. The contract expired in 2014 with no further obligation for either party. Revenue recognized in 2014 relates to the manufactured batches shipped to BMS during the year and the subsequent release of the deferred revenue balance upon the expiration of the contract.

Other milestone and royalty payments

Under our licensing arrangements with Alnylam and Alexion we have the potential to earn further development and commercial milestones and royalties for the use of our LNP technology.

In September 2013, Spectrum announced that they had shipped the first commercial orders of Marqibo. We continue to earn royalties on the sales of Marqibo, which uses a license to our technology.

Expenses / Expenses are summarized in the following table, in millions:

		2015	**% of Total**		2014	% of Total
Research, development, collaborations and contracts	**$**	**51.5**	**40%**	$	38.7	80%
General and administrative		**26.4**	**21%**		8.7	18%
Depreciation		**0.6**	**—%**		0.5	1%
Acquisition costs		**9.7**	**8%**		0.5	1%
Impairment of intangible assets	**$**	**39.0**	**31%**	$	—	—%
Total operating expenses	**$**	**127.2**		$	48.4	

Research, development, collaborations and contracts

Research, development, collaborations and contracts expenses consist primarily of clinical and pre-clinical trial expenses, personnel expenses, consulting and third party expenses, consumables and materials, as well as a portion of stock-based compensation and general corporate costs.

R&D expenses increased during 2015 as compared to 2014 as we increased our spending on ARB-1467 (TKM-HBV) for which Phase 1 clinical trials were initiated in 2015. We also incurred incremental costs related to an increase in activities for the preclinical HBV programs we acquired from our merger with Arbutus Inc. In addition, we increased research activities related to our collaboration contracts with the DoD, Monsanto, and Dicerna.

R&D compensation expense increased in 2015 as compared to 2014 due to an increase in the number of employees in support of our expanded portfolio of product candidates, as well as from our merger with Arbutus Inc. In addition, in the year ended December 31, 2015, we incurred a total of $16.7 million of incremental non-cash compensation expense related to the expiry of repurchase rights on shares issued as part of the consideration paid for the merger with Arbutus Inc. (refer to notes to the financial statements), of which $4.2 million has been included as part of research, development, collaborations and contracts expense, and $12.5 million included as part of general and administrative expense.

A significant portion of our research, development, collaborations and contracts expenses are not tracked by project as they benefit multiple projects or our technology platform and because our most-advanced programs are not yet in late-stage clinical development. However, our collaboration agreements contain cost-sharing arrangements pursuant to which certain costs incurred under the project are reimbursed. Costs reimbursed under collaborations typically include certain direct external costs and hourly or full-time equivalent labor rates for the actual time worked on the project. In addition, we have been reimbursed under government contracts for certain allowable costs including direct internal and external costs. As a result, although a significant portion of our research, development, collaborations and contracts expenses are not tracked on a project-by-project basis, we do, however, track direct external costs attributable to, and the actual time our employees worked on, our collaborations and government contracts.

General and administrative

General and administrative expenses increased in 2015 compared to 2014 due largely to an increase in compensation expense linked to our increase in employee base and incremental corporate expenses to support the growth of the Company following the completion of our merger with Arbutus Inc. This includes an incremental non-cash compensation expense we incurred related to the expiry of repurchase rights on shares issued as part of consideration paid for the merger with Arbutus Inc. (see above). Expenses were also higher in 2015 due to legal costs incurred in relation to the May 2015 arbitration hearing against Alnylam.

Acquisition costs

In 2015, we incurred $9.7 million in costs for professional fees related to completing the merger with Arbutus Inc. - see "Item 1. Overview". This is a one-time cost specific to the merger with Arbutus Inc., and such costs are only incurred when a business combination occurs.

Impairment of intangible assets

For the year-ended December 31, 2015, we recorded a total impairment charge of $39.0 million based on our decision to discontinue our development of cyclophilin inhibitors. The decision was based on extensive preclinical evaluations of OCB-030, and other competitive cyclophilin inhibitors, following the acquisition of Arbutus Inc., which concluded that cyclophilins do not play a meaningful role in HBV biology.

Other income (losses) / Other income (losses) are summarized in the following table, in millions:

		2015		2014
Interest income	**$**	**0.7**	$	0.9
Foreign exchange gains		**21.8**		4.1
Increase in fair value of warrant liability		**3.3**		(10.4)
Increase in fair value of contingent consideration	**$**	**(0.8)**	$	—
Total other losses	**$**	**25.0**	$	(5.4)

Foreign exchange gains

For the year-ended December 31, 2015, we recorded a foreign exchange gain of $21.8 million, which is primarily an unrealized gain related to an appreciation in the value of our U.S. dollar funds from the previous period when converted to our functional currency of Canadian dollars. Cumulative translation adjustments, which resulted from converting from our functional currency of Canadian dollars to our reporting currency of U.S. dollars, do not impact our net loss calculation and are not included in foreign exchange gains (losses), but are included in cumulative translation adjustment in other comprehensive loss.

Increase in fair value of warrant liability

In conjunction with equity and debt financing transactions in 2011 and 2012, we issued warrants to purchase our common share. We are accounting for the warrants under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company’s own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. At each balance sheet date the warrants are revalued using the Black-Scholes model and the change in value is recorded in the consolidated statement of operations and comprehensive income (loss).

Generally, a decrease in our share price from the previous reporting date results in a decrease in the fair value of our warrant liability and vice versa.

We expect to see future changes in the fair value of our warrant liability and these changes will largely depend on the change in the Company’s share price, and, to a lesser extent, any change in our assumed rate of share price volatility, our assumptions for the expected lives of the warrants and warrant exercises.

Increase in fair value of contingent consideration

The contingent consideration represents the estimated regulatory, development and sales milestone payments payable to the previous Enantigen shareholders. Enantigen was acquired by Arbutus Inc. in 2014. As at the acquisition date of Arbutus Inc., the contingent consideration had an estimated fair value of approximately $6.7 million. Contingent consideration is a financial liability, and we determine its fair value at each reporting period with any changes in fair value from the previous reporting period recorded in the statement of operations and comprehensive loss. For the period ended December 31, 2015, we performed an evaluation of the fair value of the contingent consideration using the probability weighted assessment of likelihood of milestone payments as described above and determined the fair value of the contingent consideration had increased by $0.8 million to $7.5 million. The increase in fair value has been recorded in other losses in the statement of operations and comprehensive loss for the year-ended December 31, 2015.

Income tax benefit

For the year-ended December 31, 2015, we recorded an income tax benefit of $16.2 million due to the decrease in deferred tax liability resulting from the impairment charge we recorded for the discontinuance of our cyclophilin inhibitor program.

LIQUIDITY AND CAPITAL RESOURCES

The following table summarizes our cash flow activities for the periods indicated, in millions:

	Year ended December 31		
	2016	2015	2014
Net loss for the year	**$ (384.2)**	$ (61.1)	$ (38.8)
Adjustments to reconcile net loss to net cash used in operating activities	**326.7**	21.0	9.9
Changes in operating assets and liabilities	**(0.5)**	(14.6)	16.5
Net cash used in operating activities	**(57.9)**	(54.8)	(12.4)
Net cash provided by (used in) investing activities	**(99.1)**	7.7	(43.0)
Net cash provided by financing activities	**12.6**	143.9	60.7
Effect of foreign exchange rate changes on cash & cash equivalents	**1.0**	(2.2)	(1.8)
Net increase in cash and cash equivalents	**(143.4)**	94.6	3.5
Cash and cash equivalents, beginning of year	**166.8**	72.2	68.7
Cash and cash equivalents, end of year	**$ 23.4**	$ 166.8	$ 72.2

At December 31, 2016, we had cash and cash equivalents of $23.4 million, short-term investments of $107.1 million, and restricted investments of $12.6 million, totaling $143.2 million as compared to cash, cash equivalents, and short and long-term investments of $191.4 million at December 31, 2015.

Since our incorporation, we have financed our operations through the sales of shares, units, debt, revenues from research and development collaborations and licenses with corporate partners, interest income on funds available for investment, and government contracts, grants and tax credits.

Operating activities used $57.9 million in cash in 2016 as compared to $54.8 million used in 2015 and $12.4 million used in 2014. The increase in cash used from operating activities was primarily related to the expansion of our research and development as we continue to move our product candidates into the clinic. Significant non-cash items to reconcile net loss used by operating activities include impairment of intangible assets of $148.2 million (net of deferred income tax benefit of $105.0 million), as well as impairment of goodwill of $138.1 million.

Investing activities used cash of $99.1 million in 2016 compared to cash provided of $7.7 million in 2015 and cash used of $43.0 million in 2014. Cash used increased in 2016 due to additional short and long-term investments we acquired during the year, as well as an increase in restricted cash (investment) related to our new loan payable we entered into in December 2016 (see below). Cash provided in 2015 was from the maturity of guaranteed investment certificates during the year.

On March 18, 2014, we completed an underwritten public offering of 2,125,000 common shares, at a price of $28.50 per share, representing gross proceeds of $60.5 million, and net proceeds of $56.5 million. On March 25, 2015, we completed an underwritten public offering of 7,500,000 common shares, at a price of $20.25 per share, representing gross proceeds of $151.9 million, and net proceeds of $142.2 million. We are using these proceeds to develop and advance product candidates through clinical trials, as well as for working capital and general corporate purposes.

On December 27, 2016, we obtained a $12.0 million loan from Wells Fargo, secured by $12.6 million in restricted cash. The loan is due on December 27, 2019, and we are able to partially or wholly repay the borrowings at any time. We are using these proceeds primarily to renovate newly leased laboratory and office space in Warminster, Pennsylvania. The newly leased facility will allow us to expand our U.S. research and development activities.

Cash requirements / At December 31, 2016 we held $23.4 million in cash and cash equivalents, $107.1 million in short-term investments, and $12.6 million in restricted cash (investments). We believe we have sufficient cash resources for at least the next 12 months. In the future, substantial additional funds will be required to continue with the active development of our pipeline products and technologies. In particular, our funding needs may vary depending on a number of factors including:

- the need for additional capital to fund future business development programs;
- revenues earned from our legacy licensing agreements, including milestone and royalty payments from Alnylam, Alexion and Spectrum;
- the extent to which we continue the development of our product candidates, add new product candidates to our pipeline, or form collaborative relationships to advance our products;
- our decisions to in-license or acquire additional products or technology for development, in particular for our HBV programs;
- our ability to attract and retain corporate partners, and their effectiveness in carrying out the development and ultimate commercialization of our product candidates;
- extent of cash inflow from licensing our LNP technology and royalty entitlements;
- whether batches of drugs that we manufacture fail to meet specifications resulting in delays and investigational and remanufacturing costs;
- the decisions, and the timing of decisions, made by health regulatory agencies regarding our technology and products;
- competing technological and market developments; and
- costs associated with prosecuting and enforcing our patent claims and other intellectual property rights, including litigation and arbitration arising in the course of our business activities.

We will seek to obtain funding to maintain and advance our business from a variety of sources including public or private equity or debt financing, collaborative arrangements with pharmaceutical companies and government grants and contracts. There can be no assurance that funding will be available at all or on acceptable terms to permit further development of our products especially in light of the current difficult climate for investment in early stage biotechnology companies.

If adequate funding is not available, we may be required to delay, reduce or eliminate one or more of our research or development programs or reduce expenses associated with non-core activities. We may need to obtain funds through arrangements with collaborators or others that may require us to relinquish most or all of our rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise seek if we were better funded. Insufficient financing may also mean failing to prosecute our patents or relinquishing rights to some of our technologies that we would otherwise develop or commercialize.

Material commitments for capital expenditures / As at the date of this discussion we do not have any material commitments for capital expenditures.

OFF-BALANCE SHEET ARRANGEMENTS

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

CONTRACTUAL OBLIGATIONS

Facility lease / On August 9, 2016, we signed a new lease agreement effective November 1, 2016, subsequently amended to October 7, 2016, to move our U.S. operations to 701 Veterans Circle, Warminster, Pennsylvania. The new location has approximately 35,000 square feet of laboratory facilities and office space. The lease expires on April 30, 2027. Estimated total lease and operating cost commitment for this lease is approximately $6.9 million. We also have the option of extending the lease for two five-year terms.

Product development partnership with the Canadian Government / We entered into a Technology Partnerships Canada (TPC) agreement with the Canadian Federal Government on November 12, 1999. Under this agreement, TPC agreed to fund 27% of our costs incurred prior to March 31, 2004, in the development of certain oligonucleotide product candidates up to a maximum contribution from TPC of $7.2 million (C$9.3 million). As at December 31, 2016, a cumulative contribution of $2.8 million (C$3.7 million) had been received and we do not expect any further funding under this agreement. In return for the funding provided by TPC, we agreed to pay royalties on the share of future licensing and product revenue, if any that is received by us on certain non-siRNA oligonucleotide product candidates covered by the funding under the agreement. These royalties are payable until a certain cumulative payment amount is achieved or until a pre-specified date. In addition, until a cumulative amount equal to the funding actually received under the agreement has been paid to TPC, we agreed to pay a 2.5% royalty on any royalties we receive for Marqibo.

In September 2013, we began to earn royalties on Marqibo and the cumulative amount paid or accrued up to December 31, 2016 was $0.02 million resulting in the contingent amount due to TPC being $2.8 million (C$3.7 million).

Contingent consideration from Arbutus Inc. acquisition of Enantigen and License Agreements between Enantigen and Blumberg and Drexel

In October 2014, Arbutus Inc. acquired all of the outstanding shares of Enantigen pursuant to a stock purchase agreement. Through this transaction, Arbutus Inc. acquired a HBV surface antigen secretion inhibitor program and a capsid assembly inhibitor program, each of which are now assets of Arbutus, following the Company's merger with Arbutus Inc. in March 2015.

Under the stock purchase agreement, Arbutus Inc. agreed to pay up to a total of $21.0 million to Enantigen's selling stockholders upon the achievement of certain triggering events related to HBV therapies. The first triggering event is enrollment of the first patient in a Phase 1b clinical trial in HBV patients, which we expect may occur in the next twelve month period.

The regulatory, development and sales milestone payments have an estimated fair value of approximately $6.7 million as at the date of acquisition of Arbutus Inc. in March 2015, and have been treated as contingent consideration payable in the purchase price allocation. Contingent consideration is considered as a financial liability, and measured at its fair value at each reporting period with any changes in fair value from the previous reporting period recorded in the statement of operations and comprehensive loss. For the period ended December 31, 2016, we performed an evaluation of the fair value of the contingent consideration using the probability weighted assessment of likelihood of milestone payments as described above. We determined the fair value of the contingent consideration has increased to $11.1 million and the increase in fair value of $3.6 million has been recorded in other losses in the statement of operations and comprehensive loss for the year ended December 31, 2016.

Drexel and Blumberg

In February 2014, Arbutus Inc. entered into a license agreement with Blumberg and Drexel that granted an exclusive, worldwide, sub-licensable license to three different compound series: cccDNA inhibitors, capsid assembly inhibitors and HCC inhibitors.

In partial consideration for this license, Arbutus Inc. paid a license initiation fee of $0.2 million and issued warrants to Blumberg and Drexel. Under this license agreement, Arbutus Inc. also agreed to pay up to $3.5 million in development and regulatory milestones per licensed compound series, up to $92.5 million in sales performance milestones per licensed product, and royalties in the mid-single digits based upon the proportionate net sales of licensed products in any commercialized combination. We are obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from the sub-licensees, subject to customary exclusions.

In November 2014, Arbutus Inc. entered into an additional license agreement with Blumberg and Drexel pursuant to which it received an exclusive, worldwide, sub-licensable license under specified patents and know-how controlled by Blumberg and Drexel covering epigenetic modifiers of cccDNA and STING agonists. In consideration for these exclusive licenses, Arbutus Inc. made an upfront payment of $0.1 million. Under this agreement, we will be required to pay up to $1.0 million for each licensed product upon the achievement of a specified regulatory milestone and a low single digit royalty, based upon the proportionate net sales of compounds covered by this intellectual property in any commercialized combination. We are also obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from its sub-licensees, subject to exclusions.

Research Collaboration and Funding Agreement with Blumberg

In October 2014, Arbutus Inc. entered into a research collaboration and funding agreement with Blumberg under which we will provide $1.0 million per year of research funding for three years, renewable at our option for an additional three years, for Blumberg to conduct research projects in HBV and liver cancer pursuant to a research plan to be agreed upon by the parties. Blumberg has exclusivity obligations to Arbutus with respect to HBV research funded under the agreement. In addition, Arbutus has the right to match any third party offer to fund HBV research that falls outside the scope of the research being funded under the agreement. Blumberg has granted Arbutus the right to obtain an exclusive, royalty bearing, worldwide license to any intellectual property generated by any funded research project. If we elect to exercise its right to obtain such a license, we will have a specified period of time to negotiate and enter into a mutually agreeable license agreement with Blumberg. This license agreement will include the following pre negotiated upfront, milestone and royalty payments: an upfront payment in the amount of $0.1 million; up to $8.1 million upon the achievement of specified development and regulatory milestones; up to $92.5 million upon the achievement of specified commercialization milestones; and royalties at a low single to mid-single digit rates based upon the proportionate net sales of licensed products from any commercialized combination.

On June 5, 2016, we entered into an amended and restated research collaboration and funding agreement with Blumberg, primarily to: (1) increase the annual funding amount to Blumberg from $1.0 to $1.1 million; (ii) extend the initial term through to October 29, 2018; (iii) provide an option for us to extend the term past October 29, 2018 for two additional one year terms; and (iv) expand our exclusive license under the Agreement to include the sole and exclusive right to obtain an exclusive, royalty-bearing, worldwide and all-fields license under Blumberg's rights in certain other inventions described in the agreement.

NeuroVive Pharmaceutical AB (“NeuroVive”)

In September 2014, Arbutus Inc. (OnCore) entered into a license agreement with NeuroVive that granted them an exclusive, worldwide, sub-licensable license to develop, manufacture and commercialize, for the treatment of HBV, oral dosage form sanglifehrin based cyclophilin inhibitors (including OCB-030).

In 2015, we discontinued the OCB-30 development program based on significant research and analysis. In July 2016, we provided NeuroVive with a notice of termination of the license agreement. The parties agreed to terminate the agreement in October 2016.

Cytos Biotechnology Ltd (“Cytos”)

On December 30, 2014, Arbutus Inc. (OnCore) entered into an exclusive, worldwide, sub-licensable (subject to certain restrictions with respect to licensed viral infections other than hepatitis) license to 6 different series of compounds. The licensed compounds are Qbeta-derived virus-like particles that encapsulate TLR9, TLR7 or RIG-I agonists and may or may not be conjugated with antigens from the hepatitis virus or other licensed viruses. We have an option to expand this license to include additional viral infections other than influenza and Cytos will retain all rights for influenza, all non-viral infections, and all viral infections (other than hepatitis) for which it has not exercised its option.

In partial consideration for this license, we are obligated to pay Cytos up to a total of $67.0 million for each of the licensed compound series upon the achievement of specified development and regulatory milestones; for hepatitis and each additional licensed viral infection, up to a total of $110.0 million upon the achievement of specified sales performance milestones; and tiered royalty payments in the high-single to low-double digits, based upon the proportionate net sales of licensed products in any commercialized combination. In 2016, we discontinued the TLR9 development program based on significant levels of research and analysis.

The following table summarizes our contractual obligations as at December 31, 2016:

(in millions)	Payments Due by Period				
	Total	**Less than 1 year**	**1 – 3 years**	**3 – 5 years**	**More than 5 years**
Contractual Obligations					
Facility lease	$ 9.4	$ 1.5	$ 2.7	$ 1.4	$ 3.8

We in-license technology from a number of sources. Pursuant to these in-license agreements, we will be required to make additional payments if and when we achieve specified development, regulatory, financial and commercialization milestones. To the extent we are unable to reasonably predict the likelihood, timing or amount of such payments; we have excluded them from the table above. Our technology in-licenses are further described in "Item 1. Overview".

We also have contracts and collaborative arrangements that require us to undertake certain research and development work as further explained elsewhere in this discussion. It is not practicable to estimate the amount of these obligations.

IMPACT OF INFLATION

Inflation has not had a material impact on our operations.

RELATED PARTY TRANSACTIONS

We have not entered into any related party transactions in the periods covered by this discussion.

OUTSTANDING SHARE DATA

At March 14, 2017, we had 55,023,207 common shares issued and outstanding, and outstanding options to purchase an additional 3,749,763 common shares.

RECENT ACCOUNTING PRONOUNCEMENTS

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (FASB) or other standard setting bodies that we adopt as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued standards that are not yet effective will not have a material impact on our financial position or results of operations upon adoption.

Please refer to Note 2 to our consolidated financial statements included in Part II, Item 8, "Financial Statements and Supplementary Data," of this annual report on Form 10-K for a description of recent accounting pronouncements applicable to our business.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest rate risk

We are exposed to market risk related to changes in interest rates, which could adversely affect the value of our interest rate sensitive assets and liabilities. We do not hold any instruments for trading purposes and investment decisions are governed by a Board approved Investment Policy. As at December 31, 2016, we had cash and cash equivalents of $23.4 million and short- and restricted investments of $119.7 million, as compared to $166.8 million of cash and cash equivalents and $24.6 million of short- and long-term investments as at December 31, 2015. We invest our cash reserves in high interest saving accounts and guaranteed investment certificates and term deposits with varying terms to maturity (not exceeding two years) issued by major Canadian banks, selected with regard to the expected timing of expenditures for continuing operations and prevailing interest rates.

The fair value of our cash investments as at December 31, 2016 is equal to the face value of those investments and the value reported in our balance sheet. Due to the relatively short-term nature of the investments that we hold, we do not believe that the results of operations or cash flows would be affected to any significant degree by a sudden change in market interest rates relative to our investment portfolio. Our debt instrument sensitive to changes in interest rate is our warrant liability and liability-classified stock options, with its fair value determined using the Black-Scholes model, which uses interest rate as an input. We have estimated the effects on our warrant liability and liability-classified stock options based on a one percentage point hypothetical adverse change in interest rates as of December 31, 2016 and 2015. We determined the hypothetical fair value using the same Black-Scholes model, and determined that an increase in the interest rates of one percentage point would have had an immaterial change to our warrant liability and liability-classified stock option awards as at December 31, 2016 and 2015.

Foreign currency exchange risk

In addition, we are exposed to market risk related to changes in foreign currency exchange rates. We have not entered into any agreements or purchased any instruments to hedge possible currency risks at this time. We manage our exchange rate risk by using cash received in a currency to pay for expenses in that same currency, whenever possible. Our policy is to maintain US and Canadian dollar cash and investment balances based on long term forecasts of currency needs thereby creating a natural currency hedge. As of December 31, 2016 and 2015, an adverse change of one percentage point in the foreign currency exchange rates of Canadian to US dollars would have resulted in an incremental loss of $0.4 million and $2.1 million, respectively. We recorded foreign exchange gains of $1.1 million and $21.8 million for the fiscal years ended December 31, 2016 and 2015, respectively.

On January 1, 2016, our functional currency changed from the Canadian dollar to the U.S. dollar based on our analysis of changes in the primary economic environment in which we operate. We will continue to incur substantial expenses and hold cash and investment balances in Canadian dollars, and as such, will remain subject to risks associated with foreign currency fluctuations.

Item 8. Financial Statements and Supplementary Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Arbutus Biopharma Corporation

We have audited the accompanying consolidated balance sheets of Arbutus Biopharma Corporation as of December 31, 2016 and December 31, 2015 and the related consolidated statements of operations and comprehensive loss, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2016. These consolidated financial statements are the responsibility of Arbutus Biopharma Corporation's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Arbutus Biopharma Corporation as of December 31, 2016 and December 31, 2015, and its consolidated results of operations and its consolidated cash flows for each of the years in the three-year period ended December 31, 2016 in conformity with US generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Arbutus Biopharma Corporation's internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 21, 2017 expressed an adverse opinion on the effectiveness of Arbutus Biopharma Corporation's internal control over financial reporting.

/s/ KPMG LLP
Chartered Professional Accountants
March 21, 2017

Vancouver, Canada

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Arbutus Biopharma Corporation

We have audited Arbutus Biopharma Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Arbutus Biopharma Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Annual Report on Internal Control over Financial Reporting*. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual financial statements will not be prevented or detected on a timely basis. A material weakness related to management's review of the estimated discount rate and mathematical accuracy of the impairment calculation in the annual impairment evaluation of intangible assets and goodwill has been identified and included in Management's Annual Report on Internal Control over Financial Reporting. In connection with the selection of an appropriate discount rate, management's internal controls were not operating effectively to identify and address on a timely basis a potential bias for exercising judgment specifically with respect to the discount rate used. In connection with the mathematical accuracy of the impairment calculation, the Company's internal controls were not operating effectively to identify an error in the spreadsheet used to calculate the goodwill impairment. We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Arbutus Biopharma Corporation as of December 31, 2016 and December 31, 2015 and the related consolidated statements of operations and comprehensive loss, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2016. This material weakness was considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2016 consolidated financial statements, and this report does not affect our report dated March 21, 2017, which expressed an unqualified opinion on those consolidated financial statements.

In our opinion, because of the effect of the aforementioned material weakness on the achievement of the objectives of the control criteria, Arbutus Biopharma Corporation has not maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

/s/ KPMG LLP
Chartered Professional Accountants
March 21, 2017

Vancouver, Canada

ARBUTUS BIOPHARMA CORPORATION

Consolidated Balance Sheets

(Expressed in thousands of US Dollars, except share and per share amounts)

(Prepared in accordance with US GAAP)

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	**$ 23,413**	$ 166,779
Short-term investments (note 2)	**107,146**	14,525
Accounts receivable	**273**	1,008
Accrued revenue	**128**	128
Investment tax credits receivable	**293**	246
Prepaid expenses and other assets	**1,311**	1,196
Total current assets	**132,564**	183,882
Restricted investment (note 2)	**12,601**	—
Long-term investments	**—**	10,070
Property and equipment (note 5)	**17,683**	12,912
Less accumulated depreciation (note 5)	**(10,738)**	(9,729)
Property and equipment, net of accumulated depreciation (note 5)	**6,945**	3,183
Intangible assets (note 3)	**99,445**	352,642
Goodwill (note 3)	**24,364**	162,514
Total assets	**$ 275,919**	$ 712,291
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities (note 12)	**$ 9,910**	$ 8,827
Deferred revenue (note 4)	**15**	868
Liability-classified options (notes 2 and 6)	**553**	—
Warrants (notes 2 and 6)	**107**	883
Total current liabilities	**10,585**	10,578
Deferred revenue, net of current portion (note 4)	**—**	213
Loan payable (notes 2 and 9)	**12,001**	—
Contingent consideration (note 10)	**9,065**	7,497
Deferred tax liability (notes 3 and 8)	**41,263**	146,324
Total liabilities	**72,914**	164,612
Stockholders' equity:		
Common shares (note 6)		
Authorized - unlimited number with no par value		
Issued and outstanding: 54,841,494 (December 31, 2015 - 54,570,691)	**867,393**	834,240
Additional paid-in capital	**36,543**	30,206
Deficit	**(651,149)**	(266,985)
Accumulated other comprehensive loss	**(49,782)**	(49,782)
Total stockholders' equity	**203,005**	547,679
Total liabilities and stockholders' equity	**$ 275,919**	$ 712,291

Nature of business and future operations (note 1)

Contingencies and commitments (note 10)

Subsequent event (note 14)

See accompanying notes to the consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Consolidated Statements of Operations and Comprehensive Loss
(Expressed in thousands of US Dollars, except share and per share amounts)
(Prepared in accordance with US GAAP)

	Year ended December 31,		
	2016	2015	2014
Revenue (note 4)			
Collaborations and contracts	**$ 229**	$ 13,309	$ 11,738
Licensing fees, milestone and royalty payments	**1,262**	11,564	3,215
Total revenue	**1,491**	24,873	14,953
Expenses			
Research, development, collaborations and contracts	**61,253**	51,505	38,713
General and administrative	**39,438**	26,438	8,683
Depreciation of property and equipment	**1,092**	589	529
Acquisition costs (note 2)	**—**	9,656	462
Impairment of intangible assets (note 3)	**253,197**	39,007	—
Impairment of goodwill (note 3)	**138,150**	—	—
Total expenses	**493,130**	127,195	48,387
Loss from operations	**(491,639)**	(102,322)	(33,434)
Other income (losses)			
Interest income	**1,391**	674	853
Foreign exchange gains	**1,120**	21,771	4,127
Gain on disposition of financial instrument (note 4)	**1,000**	—	—
Decrease (increase) in fair value of warrant liability (note 2)	**530**	3,341	(10,383)
Increase in fair value of contingent consideration (note 2)	**(1,568)**	(770)	—
Total other income (losses)	**$ 2,473**	$ 25,016	$ (5,403)
Loss before income taxes	**(489,166)**	(77,306)	(38,837)
Deferred income tax recovery (notes 3 and 8)	**105,002**	16,185	—
Net loss	**$ (384,164)**	$ (61,121)	$ (38,837)
Loss per common share			
Basic	**$ (7.24)**	$ (1.34)	$ (1.80)
Diluted	**$ (7.24)**	$ (1.34)	$ (1.80)
Weighted average number of common shares			
Basic	**53,074,401**	45,462,324	21,603,136
Diluted	**53,074,401**	45,462,324	21,603,136
Other Comprehensive loss			
Cumulative translation adjustment	**—**	(27,469)	(6,489)
Comprehensive loss	**$ (384,164)**	$ (88,590)	$ (45,326)

See accompanying notes to the consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Consolidated Statement of Stockholders' Equity

(Expressed in thousands of US Dollars, except share and per share amounts)

(Prepared in accordance with US GAAP)

	Number of shares	Share capital	Additional paid-in capital	Deficit	Accumulated other comprehensive loss	Total stockholders' equity
Balance, December 31, 2013	19,048,900	$ 216,702	$ 25,343	$ (167,027)	$ (15,824)	$ 59,194
Stock-based compensation	—	—	3,283	—	—	3,283
Issuance of common shares pursuant to exercise of options	648,506	5,034	(2,418)	—	—	2,616
Issuance of common shares pursuant to exercise of warrants	615,763	11,791	—	—	—	11,791
Issuance of common shares in conjunction with the private offering, net of issuance costs of $2,462,000	2,125,000	56,477	—	—	—	56,477
Currency translation adjustment	—	—	—	—	(6,489)	(6,489)
Net loss	—	—	—	(38,837)	—	(38,837)
Balance at December 31, 2014	22,438,169	290,004	26,208	(205,864)	(22,313)	88,035
Stock-based compensation	—	16,687	5,406	—	—	22,093
Issuance of common shares pursuant to exercise of options	640,457	4,186	(2,535)	—	—	1,651
Issuance of common shares pursuant to exercise of warrants	18,750	371	—	—	—	371
Issuance of common shares in conjunction with the private offering, net of issuance costs of $4,085,000	7,500,000	142,177	—	—	—	142,177
Increase of equity instruments in conjunction with the acquisition of Arbutus Inc. (note 3)	23,973,315	380,815	1,127	—	—	381,942
Currency translation adjustment	—	—	—	—	(27,469)	(27,469)
Net loss	—	—	—	(61,121)	—	(61,121)
Balance at December 31, 2015	54,570,691	834,240	30,206	(266,985)	(49,782)	547,679
Stock-based compensation	—	31,986	6,176	—	—	38,162
Reclassification of equity to liability stock option awards (notes 2 and 6)	—	—	(3,243)	—	—	(3,243)
Certain fair value adjustments to liability stock option awards (notes 2 and 6)	—	—	3,621	—	—	3,621
Issuance of common shares pursuant to exercise of options	100,303	475	(217)	—	—	258
Issuance of common shares pursuant to exercise of warrants	170,500	692		—	—	692
Net loss	—	—	—	(384,164)	—	(384,164)
Balance at December 31, 2016	**54,841,494**	**$ 867,393**	**$ 36,543**	**$ (651,149)**	**$ (49,782)**	**$ 203,005**

See accompanying notes to the consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Consolidated Statements of Cash Flows

(Expressed in thousands of US Dollars, except share and per share amounts)

(Prepared in accordance with US GAAP)

	Year ended December 31,		
	2016	2015	2014
OPERATING ACTIVITIES			
Net loss for the period	**$ (384,164)**	$ (61,121)	$ (38,837)
Items not involving cash:			
Deferred income taxes (notes 3 and 8)	**(105,061)**	(16,185)	—
Depreciation of property and equipment	**1,092**	589	529
Loss (gain) on sale of property and equipment	**174**	—	(80)
Stock-based compensation - research, development, collaborations and contract expenses	**11,155**	7,869	2,343
Stock-based compensation - general and administrative expenses	**28,004**	14,224	940
Unrealized foreign exchange gains	**(1,003)**	(21,966)	(4,218)
Change in fair value of warrant liability	**(530)**	(3,341)	10,383
Change in fair value of contingent consideration	**1,568**	770	—
Impairment of intangible assets (note 3)	**253,197**	39,007	—
Impairment of goodwill (note 3)	**138,150**	—	—
Net change in non-cash operating items:			
Accounts receivable	**735**	628	(1,887)
Accrued revenue		349	(360)
Deferred expenses	**—**	—	167
Investment tax credits receivable	**(47)**	(188)	(52)
Prepaid expenses and other assets	**(115)**	159	(773)
Accounts payable and accrued liabilities	**26**	(2,489)	6,253
Deferred revenue	**(1,066)**	(13,090)	13,171
Net cash used in operating activities	**(57,885)**	(54,785)	(12,421)
INVESTING ACTIVITIES			
Disposition (acquisition) of investments	**(82,551)**	9,645	(41,982)
Acquisition of restricted investment (note 2)	**(12,601)**	—	—
Cash acquired through acquisition	**—**	324	—
Proceeds from sale of property and equipment	**25**	—	80
Acquisition of property and equipment	**(3,996)**	(2,287)	(1,056)
Net cash provided by (used in) investing activities	**(99,123)**	7,682	(42,958)
FINANCING ACTIVITIES			
Proceeds from loan payable (notes 2 and 8)	**12,001**	—	—
Proceeds from issuance of common shares, net of issuance costs	**—**	142,177	56,477
Issuance of common shares pursuant to exercise of options	**192**	1,651	2,616
Issuance of common shares pursuant to exercise of warrants	**445**	42	1,583
Net cash provided by financing activities	**12,638**	143,870	60,676
Effect of foreign currency rate changes on cash and cash equivalents	**1,004**	(2,175)	(1,827)
Increase in cash and cash equivalents	**(143,366)**	94,592	3,470
Cash and cash equivalents, beginning of period	**166,779**	72,187	68,717
Cash and cash equivalents, end of period	**$ 23,413**	$ 166,779	$ 72,187
Supplemental cash flow information			
Acquisition of property and equipment not yet paid	**1,057**	—	—
Fair value of warrants exercised on a cashless basis	**$ —**	$ —	$ (116)
Investment tax credits received	**$ —**	$ 24	$ —
Acquisition of Arbutus Inc. net of cash acquired	**$ —**	$ 381,618	$ —

See accompanying notes to the consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Notes to Consolidated Financial Statements

(Tabular amounts in thousands of US Dollars, except share and per share amounts)

1. Nature of business and future operations

Arbutus Biopharma Corporation (the “Company” or “Arbutus”) is a biopharmaceutical business dedicated to discovering, developing, and commercializing a cure for patients suffering from chronic hepatitis B infection, a disease of the liver caused by the hepatitis B virus (“HBV”). The Company is also developing a pipeline focused on advancing novel RNA interference therapeutics ("RNAi") leveraging the Company’s expertise in Lipid Nanoparticle ("LNP") technology.

The success of the Company is dependent on obtaining the necessary regulatory approvals to bring its products to market and achieve profitable operations. The continuation of the research and development activities and the commercialization of its products are dependent on the Company’s ability to successfully complete these activities and to obtain adequate financing through a combination of financing activities and operations. It is not possible to predict either the outcome of future research and development programs or the Company’s ability to continue to fund these programs in the future.

2. Significant accounting policies

Basis of presentation

Arbutus Biopharma Corporation was incorporated in Canada on October 6, 2005 as an inactive wholly owned subsidiary of Inex Pharmaceuticals Corporation (Inex). Pursuant to a “Plan of Arrangement” effective April 30, 2007, the business and substantially all of the assets and liabilities of Inex were transferred to the Company. The consolidated financial statements for all periods presented herein include the consolidated operations of Inex until April 30, 2007 and the operations of the Company thereafter.

The Company has two wholly-owned subsidiaries as at December 31, 2016: Arbutus Biopharma, Inc. (Arbutus Inc. formerly OnCore Biopharma, Inc.) and Protiva Biotherapeutics Inc. ("Protiva"). Protiva was acquired on May 30, 2008. Arbutus Inc. was acquired by way of a Merger Agreement on March 4, 2015.

In addition to Arbutus Inc. and Protiva, the Company's former wholly-owned subsidiary, Protiva Agricultural Development Company Inc. ("PADCo"), was previously recorded by the Company using the equity method. On March 4, 2016, Monsanto exercised its option to acquire 100% of the outstanding shares of PADCo, as described in note 4(b).

These consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Arbutus Inc. and Protiva. All intercompany transactions and balances have been eliminated on consolidation.

Foreign currency translation and functional currency conversion

Prior to January 1, 2016, the Company's functional currency was the Canadian dollar. Translation gains and losses from the application of the U.S. dollar as the reporting currency while the Canadian dollar was the functional currency are included as part of cumulative currency translation adjustment, which is reported as a component of shareholders' equity under accumulated other comprehensive loss.

The Company re-assessed its functional currency and determined as at January 1, 2016, its functional currency changed from the Canadian dollar to the U.S. dollar based on management's analysis of changes in the primary economic environment in which the Company operates. The change in functional currency is accounted for prospectively from January 1, 2016 and financial statements prior to and including the period ended December 31, 2015 have not been restated for the change in functional currency.

For periods prior to January 1, 2016, the effects of exchange rate fluctuations on translating foreign currency monetary assets and liabilities into Canadian dollars were included in the statement of operations and comprehensive loss as foreign exchange gain/loss. Revenue and expense transactions were translated into the U.S. dollar reporting currency at the balance sheet date at average exchange rates during the period, and assets and liabilities were translated at end of period exchange rates, except for equity transactions, which were translated at historical exchange rates. Translation gains and losses from the application of the U.S. dollar as the reporting currency while the Canadian dollar was the functional currency are included as part of the cumulative foreign currency translation adjustment, which is reported as a component of shareholders' equity in accumulated other comprehensive loss.

For periods commencing January 1, 2016, monetary assets and liabilities denominated in foreign currencies are translated into U.S. dollars using exchange rates in effect at the balance sheet date. Opening balances related to non-monetary assets and liabilities are based on prior period translated amounts, and non-monetary assets and non-monetary liabilities incurred after January 1, 2016 are translated at the approximate exchange rate prevailing at the date of the transaction. Revenue and expense transactions are translated at the approximate exchange rate in effect at the time of the transaction. Foreign exchange gains and losses are included in the statement of operations and comprehensive loss as foreign exchange gains.

Use of estimates

The preparation of the consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions about future events that affect the reported amounts of assets, liabilities, revenue, expenses, contingent assets and contingent liabilities as at the end or during the reporting period. Actual results could significantly differ from those estimates. Significant areas requiring the use of management estimates relate valuation of intangible assets and goodwill, recognition of revenue, stock-based compensation, and financial instruments, and the amounts recorded as accrued liabilities, contingent consideration, and income tax recovery.

Cash and cash equivalents

Cash and cash equivalents are all highly liquid instruments with an original maturity of three months or less when purchased. Cash equivalents are recorded at cost plus accrued interest. The carrying value of these cash equivalents approximates their fair value.

Short-term and long-term investments

Short-term investments have original maturities exceeding three months, and have remaining maturities less than one year. Long-term investments have remaining maturities exceeding twelve months. Short-term and long-term investments accrue interest daily based on a fixed interest rate for the term. The carrying value of these investments are recorded at cost plus accrued interest, which approximates their fair value. All investments are governed by the Board approved Investment Policy for the Company.

Loan payable and restricted cash (investment)

The Company obtained a loan from Wells Fargo for the purpose of financing its operations, including the expansion of laboratory facilities for its U.S. operations. The loan accrues interest daily based on an interest rate with a variable and fixed component. The variable component is the one-month London Interbank Offered Rate (LIBOR), and the fixed component is a margin based on the amount of collateral cash the Company maintains with the lender - see note 9. The loan is due December 2019. The loan is recorded at amortized cost.

The Company must maintain a cash or investment balance as collateral for the loan payable to Wells Fargo. The cash or investment is restricted from the Company's use until the loan is repaid. The Company does not expect to repay the loan within twelve months of the balance sheet date so has classified the restricted cash as a long-term asset. The restricted cash balance has been used to purchase a two year investment maturing on December 23, 2018 and accruing interest at a fixed interest rate of 1.25%. The carrying value of the restricted cash is recorded at cost plus any accrued interest not yet received, which approximates its fair value.

Fair value of financial instruments

We measure certain financial instruments and other items at fair value.

To determine the fair value, we use the fair value hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use to value an asset or liability and are developed based on market data obtained from independent sources. Unobservable inputs are inputs based on assumptions about the factors market participants would use to value an asset or liability. The three levels of inputs that may be used to measure fair value are as follows:

- Level 1 inputs are quoted market prices for identical instruments available in active markets.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly. If the asset or liability has a contractual term, the input must be observable for substantially the full term. An example includes quoted market prices for similar assets or liabilities in active markets.
- Level 3 inputs are unobservable inputs for the asset or liability and will reflect management's assumptions about market assumptions that would be used to price the asset or liability.

Assets and liabilities are classified based on the lowest level of input that is significant to the fair value measurements. Changes in the observability of valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy.

The Company's financial instruments consist of cash and cash equivalents, short-term, long-term and restricted investments, accounts receivable, accounts payable and accrued liabilities, warrants, and loan payable . Long-term and restricted investments approximate fair value due to the interest rates being at prevailing market rates.

The carrying values of cash and cash equivalents, short-term investments, accounts receivable and accounts payable and accrued liabilities approximate their fair values due to the immediate or short-term maturity of these financial instruments.

As quoted prices for the warrants are not readily available, the Company has used a Black-Scholes pricing model, as described in note 6, to estimate fair value. These are level 3 inputs as defined above.

To determine the fair value of the contingent consideration, the Company uses a probability weighted assessment of the likelihood the milestones would be met and the estimated timing of such payments, and then the potential contingent payments were discounted to their present value using a probability adjusted discount rate that reflects the early stage nature of the development program, time to complete the program development, and overall biotech indices, as detailed in note 10. The Company determined the fair value of the contingent consideration was $9,065,000 and the increase of $1,568,000 has been recorded in other losses in the statement of operations and comprehensive loss for the year ended December 31, 2016. The assumptions used in the discounted cash flow model are level 3 inputs as defined above.

The following tables present information about the Company's assets and liabilities that are measured at fair value on a recurring basis, and indicates the fair value hierarchy of the valuation techniques used to determine such fair value:

	Level 1	Level 2	Level 3	December 31, 2016
Assets				
Cash and cash equivalents	$ 23,413	—	—	$ 23,413
Short-term investments	107,146	—	—	107,146
Restricted investment	12,601	—	—	12,601
Total	$ 143,160	—	—	$ 143,160
Liabilities				
Warrants	—	—	$ 107	$ 107
Liability-classified stock option awards	—	—	553	553
Contingent consideration	—	—	9,065	9,065
Total	—	—	9,725	$ 9,725

	Level 1	Level 2	Level 3	December 31, 2015
Assets				
Cash and cash equivalents	$ 166,779	—	—	$ 166,779
Guaranteed investment certificates	14,525	—	—	14,525
Term deposit	10,070	—	—	10,070
Total	$ 191,374	—	—	$ 191,374
Liabilities				
Warrants	—	—	$ 883	$ 883
Contingent consideration	—	—	7,497	7,497
Total	—	—	$ 8,380	$ 8,380

The following table presents the changes in fair value of the Company's warrants:

	Liability at beginning of the period	Fair value of warrants exercised in the period	Increase (decrease) in fair value of warrants	Foreign exchange loss	Liability at end of the period
Year ended December 31, 2014	$ 5,379	$ (10,208)	$ 10,383	$ (455)	$ 5,099
Year ended December 31, 2015	$ 5,099	$ (334)	$ (3,341)	$ (541)	$ 883
Year ended December 31, 2016	$ 883	$ (247)	$ (529)	$ —	$ 107

The following table presents the changes in fair value of the Company's liability-classified stock option awards:

	Reclassification of equity to liability [1]	Fair value of liability-classified stock option awards exercised in the period	Increase (decrease) in fair value of liability	Liability at end of the period
Year ended December 31, 2016	$ 1,909	$ (54)	$ (1,302)	$ 553

(1) Upon functional currency conversion on January 1, 2016 - see functional currency conversion above.

The following table presents the changes in fair value of the Company's contingent consideration:

	Contingent consideration at beginning of the period	Increase in fair value of contingent consideration	Contingent consideration at end of the period
Year ended December 31, 2015[1]	$ 6,727	$ 770	$ 7,497
Year ended December 31, 2016	$ 7,497	$ 1,568	$ 9,065

(1) As at acquisition date of March 4, 2015.

Property and equipment

Property and equipment is recorded at cost less impairment losses, accumulated depreciation, related government grants and investment tax credits. The Company records depreciation using the straight-line method over the estimated useful lives of the capital assets as follows:

	Useful life (years)		
Laboratory equipment		5	
Computer and office equipment	2	—	5
Furniture and fixtures		5	

Leasehold improvements are depreciated over their estimated useful lives but in no case longer than the lease term, except where lease renewal is reasonably assured.

If there is a major event indicating that the carrying value of property and equipment may be impaired then management will perform an impairment test and if the carrying value exceeds the recoverable value, based on undiscounted future cash flows, then such assets are written down to their fair values.

Goodwill and intangible assets

The costs incurred in establishing and maintaining patents for intellectual property developed internally are expensed in the period incurred.

Intangible assets consist of in-process research and development arising from the Company’s acquisition of Arbutus Inc. in 2015. In-process research and development (IPR&D) intangible assets are classified as indefinite-lived and are not amortized. IPR&D becomes definite-lived upon the completion or abandonment of the associated research and development efforts. Intangible assets with finite useful lives are amortized on a straight-line basis over their estimated useful lives, which are the respective patent terms. Amortization begins when intangible assets with finite lives are put into use. If there is a major event indicating that the carrying value of intangible assets may be impaired, then management will perform an impairment test in an interim period and if the carrying value exceeds the recoverable value, based on discounted future cash flows, then such assets are written down to their fair values.

The Company reviews the recoverable amount of intangible assets and goodwill on an annual basis, and the annual evaluation is performed as of December 31 each year. In addition, the Company evaluates for events or changes in the business that could indicate impairment and earlier testing. Such indicators include, but are not limited to, on an ongoing basis: (a) industry and market considerations such as increased competitive environment or adverse change in legal factors including an adverse assessment by regulators; (b) an accumulation of costs significantly in excess of the amount originally expected for the development of the asset; (c) current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of the asset; (d) adverse research and development program results; and (e) if applicable, a sustained decrease in share price.

Goodwill represents the excess of purchase price over the value assigned to the net tangible and identifiable intangible assets of Arbutus Inc. - see note 3. Goodwill has an indefinite accounting life and is therefore not amortized. Instead, goodwill is subject to a two-step impairment test on an annual basis, unless the Company identifies impairment indicators that would require earlier testing. The first step compares the fair value of the reporting unit to its carrying amount, which includes the goodwill. When the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not to be impaired, and the second step of the impairment test is unnecessary. If the carrying amount exceeds the fair value of the reporting unit, the second step measures the amount of the impairment loss. In the second step of the impairment test, the amount of impairment loss is calculated to the extent that the implied fair value of goodwill exceeds the carrying value of goodwill assigned to the Company's single reporting unit based on a hypothetical purchase price allocation.

Revenue recognition

The Company earns revenue from research and development collaboration and contract services, licensing fees, milestone and royalty payments. In arrangements with multiple deliverables, the delivered item or items is considered a separate unit of accounting if: (1) the delivered item has value to the customer on a standalone basis; and (2) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item is considered probably and substantially in the Company's control. If the elements of the arrangement do not meet both of the criteria above, they are recognized as a single unit of accounting. If the elements do meet the criteria above, arrangement consideration is allocated to the separate units of accounting based on their relative selling price. Non-refundable payments received under collaborative research and development agreements are recorded as revenue as services are performed and related expenditures are incurred. Non-refundable upfront license fees from collaborative licensing and development arrangements are recognized as the Company fulfills its obligations related to the various elements within the agreements, in accordance with the contractual arrangements with third parties and the term over which the underlying benefit is being conferred. If non-refundable license fees have values to the customer on a standalone basis, separate from the undelivered performance obligations, they are recognized upon delivery. To date, the Company has not recognized any non-refundable license fees upon delivery.

The Company evaluates new arrangements for any substantive milestones by considering: whether substantive uncertainty exists upon execution of the arrangement; if the event can only be achieved based in whole or in part on the Company’s performance, or occurrence of a specific outcome resulting from the Company’s performance; any future performance required, and payment is reasonable relative to all deliverables; and, the payment terms in the arrangement. Payments received upon the achievement of substantive milestones are recognized as revenue in their entirety. Payments received upon the occurrence of milestones that are non-substantive are deferred and recognized as revenue over the estimated period of performance applicable to the associated collaborative agreement.

Revenue earned under research and development manufacturing collaborations where the Company bears some or all of the risk of a product manufacturing failure is recognized when the purchaser accepts the product and there are no remaining rights of return.

Revenue earned under research and development collaborations where the Company does not bear any risk of product manufacturing failure is recognized in the period the work is performed. For contracts where the manufacturing amount is specified, revenue is recognized as product is manufactured in proportion to the total amount specified under the contract.

Revenue and expenses under the contract with the United States Government Department of Defense (“DoD”) were being recorded using the percentage-of-completion method. Contract progress was based on costs incurred to date. Expenses under the contract were recorded in the Company’s consolidated statement of operations and comprehensive income (loss) as they were incurred. Government contract revenues related to expenses incurred under the contract were recorded in the same period as those expenses. Expenses accrued under the contract but not yet invoiced were recorded in the Company’s balance sheet as accrued liabilities and accrued revenues. Equipment purchased under the contract was recorded on the Company’s balance sheet as deferred expense and deferred revenue and amortized, on a straight-line basis, over the life of the contract.

Cash or other compensation received in advance of meeting the revenue recognition criteria is recorded on the balance sheet as deferred revenue. Revenue meeting recognition criteria but not yet received or receivable is recorded on the balance sheet as accrued revenue.

Leases and lease inducements

Leases entered into are classified as either capital or operating leases. Leases which substantially transfer all benefits and risks of ownership of property to the Company are accounted for as capital leases. At the time a capital lease is entered into, an asset is recorded together with its related long-term obligation to reflect the purchase and financing.

All other leases are accounted for as operating leases wherein rental payments are expensed as incurred.

Lease inducements represent leasehold improvement allowances and reduced or free rent periods and are amortized on a straight-line basis over the term of the lease and are recorded as a reduction of rent expense.

Research and development costs

Research and development costs, including acquired in-process research and development expenses for which there is no alternative future use, are charged as an expense in the period in which they are incurred.

Income or loss per share

Income or loss per share is calculated based on the weighted average number of common shares outstanding. Diluted loss per share does not differ from basic loss per share for the years ended December 31, 2016, 2015 and 2014, since the effect of the Company's stock options and warrants is anti-dilutive.

The following table sets out the computation of basic and diluted net income (loss) per common share:

	For the year ended December 31		
	2016	2015	2014
Numerator:			
Net loss	**$ (384,164)**	**$ (61,121)**	**$ (38,837)**
Denominator:			
Weighted average number of common shares	**53,074,401**	45,462,324	21,603,136
Basic income (loss) per common share	**$ (7.24)**	$ (1.34)	$ (1.80)
Diluted income (loss) per common share	**$ (7.24)**	$ (1.34)	$ (1.80)

For the year ended December 31, 2016, potential common shares of 4,645,864 were excluded from the calculation of income per common share because their inclusion would be anti-dilutive (December 31, 2015 – 2,899,331; December 31, 2014 – 2,221,233).

Government grants and refundable investment tax credits

Government grants and tax credits provided for current expenses is included in the determination of income or loss for the year, as a reduction of the expenses to which it relates. Government grants and tax credits towards the acquisition of property and equipment is deducted from the cost of the related property and equipment.

Deferred income taxes

Income taxes are accounted for using the asset and liability method of accounting. Deferred income taxes are recognized for the future income tax consequences attributable to differences between the carrying values of assets and liabilities and their respective income tax bases and for loss carry-forwards. Deferred income tax assets and liabilities are measured using enacted income tax rates expected to apply to taxable income in the periods in which temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities of a change in tax laws or rates is included in earnings in the period that includes the enactment date. When realization of deferred income tax assets does not meet the more-likely-than-not criterion for recognition, a valuation allowance is provided.

Equity classified stock option awards

The Company grants stock options to employees, directors and consultants pursuant to share incentive plans described in note 6. Compensation expense is recorded for issued stock options using the fair value method with a corresponding increase in additional paid-in capital. Any consideration received on the exercise of stock options is credited to share capital.

The fair value of equity classified stock options is measured at the grant date and amortized on a straight-line basis over the vesting period.

Liability-classified stock option awards

The Company accounts for liability-classified stock option awards ("liability options") under ASC 718 - Compensation - Stock Compensation ("ASC 718"), under which awards of options that provide for an exercise price that is not denominated in: (a) the currency of a market in which a substantial portion of the Company's equity securities trades, (b) the currency in which the employee's pay is denominated, or (c) the Company's functional currency, are required to be classified as liabilities. Due to the change in functional currency as of January 1, 2016, certain stock option awards with exercise prices denominated in Canadian dollars changed from equity classification to liability classification. As such, the historic equity classification of these stock option awards changed to liability classification effective January 1, 2016. The change in classification resulted in reclassification of these awards from additional paid-in capital to liability-classified options.

Liability options are re-measured to their fair values at each reporting date with changes in the fair value recognized in share-based compensation expense or additional paid-in capital until settlement or cancellation. Under ASC 718, when an award is reclassified from equity to liability, if at the reclassification date the original vesting conditions are expected to be satisfied, then the minimum amount of compensation cost to be recognized is based on the grant date fair value of the original award. Fair value changes below this minimum amount are recorded in additional paid-in capital.

Replacement awards

Replacement awards are share-based payment awards exchanged for awards held by employees of Arbutus Inc. As part of the Company’s acquisition of Arbutus Inc., Arbutus shares were exchanged for Arbutus Inc.’s shares subject to repurchase rights held by Arbutus Inc.’s employees.

As at the date of acquisition of Arbutus Inc., the Company determined the total fair value of replacement awards and attributed a portion of the replacement awards to pre-combination service as part of the total acquisition consideration, and a portion to post-combination service, which is recognized as compensation expense over the expiry period of repurchase provision rights subsequent to the acquisition date.

The replacement awards consist of common shares that were issued at acquisition. Accordingly, as stock compensation expense related to these awards is recognized, share capital is increased by a corresponding amount. Replacement awards are excluded in the calculation of basic net income (loss) per share until the repurchase rights have expired.

Warrants

The Company accounts for the warrants under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company’s own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. The Company classifies warrants in its consolidated balance sheet as a liability which is revalued at each balance sheet date subsequent to the initial issuance. The Company uses the Black-Scholes pricing model to value the warrants. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment. A small change in the estimates used may cause a relatively large change in the estimated valuation. The estimated volatility of the Company’s common stock at the date of issuance, and at each subsequent reporting period, is based on historic fluctuations in the Company’s stock price. The risk-free interest rate is based on the Government of Canada rate for bonds with a maturity similar to the expected remaining life of the warrants at the valuation date. The expected life of the warrants is based on the historical pattern of exercises of warrants.

Segment information

The Company operates in a single reporting segment. Substantially all of the Company’s revenues to date were earned from customers or collaborators based in the United States. Substantially all of the Company’s premises, property and equipment are located in Canada and the United States.

Recent accounting pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (FASB) or other standard setting bodies that are adopted by the Company as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued standards that are not yet effective will not have a material impact on our financial position or results of operations upon adoption.

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers (ASC 606). The standard, as subsequently amended (ASU 2015-14, ASU 2016-08, ASU 2016-10, ASU 2016-12, ASU 2016-20), is intended to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP and IFRS by creating a new Topic 606, Revenue from Contracts with Customers. This guidance supersedes the revenue recognition requirements in ASC 605, Revenue Recognition, and supersedes some cost guidance included in Subtopic 605-35, Revenue Recognition – Construction-Type and Production-Type Contracts. The core principle of the accounting standard is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those good or services. The amendments should be applied by either (1) retrospectively to each prior reporting period presented; or (2) retrospectively with the cumulative effect of initially applying this ASU recognized at the date of initial application. The new guidance would be effective for fiscal years beginning after December 15, 2017, which for the Company means January 1, 2018. The Company has begun its evaluation and, at this time, does not expect adoption of this guidance to materially impact its financial statements.

In March 2016, the FASB issued ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The update is intended to simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification of the statement of cash flows. Under this update, there are five simplifications for public companies. All excess tax benefits and tax deficiencies should be recognized as income tax expense or benefit in the income statement and the tax effects of exercised or vested awards should be treated as discrete items in the reporting period in which they occur. Excess tax benefits should be classified along with other tax cash flows as an operating activity. An entity can make an entity-wide accounting policy election to either estimate the number of awards that are expected to vest (current GAAP) or account for forfeitures when they occur. Cash paid by an employee when directly withholding shares for tax withholding purposes should be classified as financing activity. The amendments in this update would be effective for annual periods beginning after December 15, 2016, which for the Company means January 1, 2017. Early application is permitted in any interim period or annual period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. The Company has early adopted all provisions of this update effective October 1, 2016 and elected an entity-wide accounting policy to recognize forfeitures as they occur. The impact of this adoption was immaterial and has been reflected in the Company's statement of operations and comprehensive loss for the year ended December 31, 2016. The remaining provisions did not have a material impact on the Company's financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842): Recognition and Measurement of Financial Assets and Financial Liabilities. The update supersedes Topic 840, Leases and requires the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous GAAP. Topic 842 retains a distinction between finance leases and operating leases, with cash payments from operating leases classified within operating activities in the statement of cash flows. The amendments in this update are effective for fiscal years beginning after December 15, 2018 for public business entities, which for the Company means January 1, 2019. The Company does not plan to early adopt this update. The extent of the impact of this adoption has not yet been determined.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The update addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice. Under this update, the classification of cash receipts and payments that have aspects of more than one class of cash flows should be determined first by applying specific guidance in GAAP. In the absence of specific guidance, an entity should determine each separately identifiable source or use within the cash receipts and cash payments on the basis of the nature of the underlying cash flows. An entity should then classify each separately identifiable source or use within the cash receipts and payments on the basis of their nature in financing, investing, or operating activities. In situations in which cash receipts and payments have aspects of more than one class of cash flows and cannot be separated by source or use, the appropriate classification should depend on the activity that is likely to be the predominant source or use of cash flows for the item. The amendments in this update are effective for public business entities for fiscal years beginning after December 31, 2017, which for the Company means January 1, 2018, and interim periods within those fiscal years. Early adoption is permitted. The amendments in this update should be applied using a retrospective transition method to each period presented. If it is impracticable to apply the amendments retrospectively for some of the issues, the amendments for those issues would be applied prospectively as of the earliest date practicable. The Company is currently evaluating the extent of the impact of this adoption.

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230): Statement of Cash Flows: Restricted Cash. The update requires the statement of cash flows to explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments in this update are effective for public business entities for fiscal years beginning after December 15, 2017, which for the Company means January 1, 2018. Early adoption is permitted, including adoption in an interim period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that included that interim period. The amendments in this update should be applied using a retrospective transition method to each period presented. The Company is currently evaluating the extent of the impact of this adoption.

In January 2017, the FASB issued ASU 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. The update simplifies the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. In computing the implied fair value of goodwill under Step 2, an entity had to perform procedures to determine the fair value at impairment testing date of its assets and liabilities following the procedure that would be required in determining the fair value of assets required and liabilities assumed in a business combination. Instead, under the amendments in this Update, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. The amendments in this update are effective for public business entities should be adopted for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019, which for the Company means January 1, 2020. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently evaluating the extent of the impact of this adoption.

3. Impairment evaluations for intangible assets and goodwill

During the year ended December 31, 2016, the Company recognized a cumulative impairment charge of $391,347,000 against intangible assets and goodwill, as detailed below. The change in the estimated discount rate and the resulting impairment charge did not impact liquidity, cash runway, or cash flow from operations.

All in-process research and development (IPR&D) acquired is currently classified as indefinite-lived and is not currently being amortized. IPR&D becomes definite-lived upon the completion or abandonment of the associated research and development efforts, and will be amortized from that time over an estimated useful life based on respective patent terms. The Company evaluates the recoverable amount of intangible assets on an annual basis and performs an annual evaluation of goodwill as of December 31 each year, unless there is an event or change in the business that could indicate a requirement to test at an interim period.

Impairment of intangible assets

During the year-ended December 31, 2016, the Company recorded a total impairment charge of $253,197,000 and a corresponding income tax benefit of $105,002,000 against its identified intangible assets. The total impairment charge included $156,324,000 for the discontinuance of the ARB-1598 program in the Immune Modulator drug class, as well as a delay in the Company's research and development of its cccDNA Sterilizer drug class recorded during the quarter ended June 30, 2016. An additional charge of $96,873,000 resulted from the Company's impairment assessment performed at December 31, 2016.

At December 31, 2016, the Company re-assessed the discount rate used in its valuation models used to assess the carrying value of goodwill and intangible assets for impairment as a result of the sustained discrepancy between the Company’s market capitalization compared to carrying values and management’s assessment of fair values. As a result, the Company adjusted its company-specific risk premium to its market-derived weighted average cost of capital, which has increased the discount rate used in the annual impairment assessment at December 31, 2016. Following the process prescribed by the standard, intangible assets are first tested before assessing goodwill for impairment. The change in discount rate has resulted in an impairment charge of $96,873,000 to the Company’s intangible assets at December 31, 2016.

The following table summarizes the carrying values, net of impairment of the intangible assets as at December 31, 2016:

Year ended December 31		**2016**		**2015**
IPR&D – Immune Modulators		**40,798**		183,103
IPR&D – Antigen Inhibitors		**14,811**		36,437
IPR&D – cccDNA Sterilizers		**43,836**		133,102
Total IPR&D	**$**	**99,445**	$	352,642

Annual impairment evaluation of goodwill

On December 31, the Company conducted its annual impairment evaluation of goodwill. Goodwill was recorded as a result of the acquisition of Arbutus Inc. as described in note 2. As part of the evaluation of the recoverability of goodwill, the Company has identified only one reporting unit to which the total carrying amount of goodwill has been assigned.

The Company determines the fair value of the reporting unit each reporting period using accepted valuation methods, including the use of discounted cash flows supplemented by market-based assessments of fair value.

The income approach is used in step one of the impairment assessment to estimate the fair value of the reporting unit, which requires estimating future cash flows and risk-adjusted discount rates in the Company's discounted cash flow model. The overall market outlook and cash flow projections of our reporting unit involve the use of key assumptions, including cash flows, discount rates and probability of success. Due to uncertainties in the estimates that are inherent to our industry, actual results could differ significantly from the estimates made.

As at December 31, 2016, the Company re-assessed the discount rate used in the calculation of fair value, consistent with the change to the discount rate used in the intangible assets impairment assessment (described above). As a result of the increased discount rate, the carrying value of the reporting unit determined in step one of the impairment assessment exceeded the fair value of the reporting unit, and as such the Company proceeded to the second step of the impairment test, which measures the amount of an impairment charge. In the second step, the carrying value of goodwill is compared to the fair value of goodwill that is implied by performing a hypothetical purchase price allocation based on identifiable assets at the date of the assessment. The remaining implied goodwill of $24,364,000 is the result of deferred taxes in the hypothetical purchase price allocation. As a result, the Company has recorded an impairment for $138,150,000 against goodwill.

Many key assumptions in the cash flow projections are interdependent on each other. A change in any one or combination of these assumptions could impact the estimated fair value of the reporting unit. See note 2 for additional discussion of the Company's policy for accounting for goodwill.

4. Collaborations, contracts and licensing agreements

The following tables set forth revenue recognized under collaborations, contracts and licensing agreements:

	Year ended December 31		
	2016	2015	2014
Collaborations and contracts			
DoD (a)	**$ —**	$ 6,764	$ 8,407
Monsanto (b)	**—**	4,725	1,080
BMS (c)	**—**	—	1,741
Dicerna (d)	**229**	1,820	510
Total research and development collaborations and contracts	**229**	13,309	11,738
Licensing fees, milestone and royalty payments			
Monsanto licensing fees and milestone payments (b)	**—**	10,256	2,744
Dicerna licensing fee (d)	**1,066**	1,053	131
Other milestone and royalty payments (e)	**196**	255	340
Total licensing fees, milestone and royalty payments	**1,262**	11,564	3,215
Total revenue	**$ 1,491**	$ 24,873	$ 14,953

The following table sets forth deferred collaborations and contracts revenue:

	December 31, 2016	December 31, 2015
DoD (a)	**$ 15**	$ 15
Monsanto current portion (b)	**—**	—
Dicerna current portion (d)	**—**	853
Deferred revenue, current portion	**15**	868
Monsanto long-term portion (b)	**—**	—
Dicerna long-term portion (d)	**—**	213
Total deferred revenue	**$ 15**	$ 1,081

(a) Contract with United States Government’s Department of Defense (“DoD”) to develop TKM-Ebola

On July 14, 2010, the Company signed a contract with the DoD to advance TKM-Ebola, an RNAi therapeutic utilizing the Company’s lipid nanoparticle technology to treat Ebola virus infection.

In the initial phase of the contract, funded as part of the Transformational Medical Technologies program, the Company was eligible to receive up to $34,700,000. This initial funding was for the development of TKM-Ebola including completion of preclinical development, filing an Investigational New Drug application with the United States Food and Drug Administration ("FDA") and completing a Phase 1 human safety clinical trial. On May 8, 2013, the Company announced that the contract had been modified to support development plans that integrate recent advancements in lipid nanoparticle ("LNP") formulation and manufacturing technologies. The contract modification increased the stage one targeted funding by an additional $6,970,000. On April 22, 2014, the Company and the DoD signed a contract modification to further increase the stage one targeted funding by $2,100,000 to $43,819,000. The additional funding was to compensate the Company for unrecovered overheads related to the temporary stop-work period that occurred in 2012 and to provide additional overhead funding should it be required.

The DoD had the option of extending the contract beyond the initial funding period to support the advancement of TKM-Ebola through to the completion of clinical development and FDA approval. Based on the contract's budget this would have provided the Company with up to $140,000,000 in funding for the entire program. In December 2014, the DoD exercised an option valued at $7,000,000 to manufacture TKM-Ebola-Guinea, developed by the Company targeting the Ebola-Guinea strain responsible for the current outbreak in West Africa.

Under the contract, the Company is reimbursed for costs incurred, including an allocation of overhead costs, and is paid an incentive fee. At the beginning of the fiscal year, the Company estimates its labor and overhead rates for the year ahead. At the end of the year the actual labor and overhead rates are calculated and revenue is adjusted accordingly. The Company's actual labor and overhead rates will differ from its estimated rates based on actual costs incurred and the proportion of the Company's efforts on contracts and internal products versus indirect activities. Within minimum and maximum collars, the amount of incentive fee the Company can earn under the contract varies based on costs incurred versus budgeted costs. During the contractual period, incentive fee revenue and total costs are impacted by management's estimate and judgments which are continuously reviewed and adjusted as necessary using the cumulative catch-up method. For the years ended December 31, 2015 and 2016, the Company believes it can reliably estimate the final contract costs so has recognized the portion of expected incentive fee which has been earned to date.

On October 1, 2015, the Company received formal notification from the DoD that, due to the unclear development path for TKM-Ebola and TKM-Ebola-Guinea, the Ebola-Guinea Manufacturing and the Ebola-Guinea IND submission statements of work had been terminated, subject to the completion of certain post-termination obligations. The TKM-Ebola portion of the contract was completed in November 2015. The Company is currently conducting contract close out procedures with the DoD.

(b) Option and Services Agreements with Monsanto Company ("Monsanto")

On January 13, 2014, the Company and Monsanto signed an Option Agreement and a Services Agreement (together, the "Agreements"). Under the Agreements, Monsanto has an option to obtain a license to use the Company's proprietary delivery technology and related intellectual property for use in agriculture. Over the option period, which is expected to be approximately four years, the Company will provide lipid formulations for Monsanto's research and development activities, and Monsanto will make certain payments to the Company to maintain its option rights. The maximum potential value of the transaction is $86,200,000 following the successful completion of milestones.

In May 2015, the arrangement was amended to extend the option period by approximately five months, with payments up to $2,000,000 for the extension period. From inception of the contract to December 31, 2015, the Company had received $19,300,000 from Monsanto. The amounts received relate to research services and use of the Company's technology over the option period, and are recognized as revenue on a straight-line basis over the extended option period.

Following the completion of the Phase A extension period in October 2015, no further research activities were conducted under the arrangement, as Monsanto did not elect to proceed to Phase B of the research plan. As such, the Company revised its estimate of the option period, over which payments received from Monsanto is recognized as revenue, to be from inception to December 31, 2015 as the Company believes it no longer has any further obligations to provide future research activities to Monsanto. This resulted in the full release of Monsanto deferred revenue and a recognition of $14,981,000 in Monsanto revenue for the year ended December 31, 2015.

Under the Agreements, the Company has established a wholly-owned subsidiary, PADCo. The Company has determined that PADCo is a variable interest entity (“VIE”); however, Monsanto is the primary beneficiary of the arrangement. PADCo was established to perform research and development activities, which have been funded by Monsanto in return for a call option to acquire the equity or all of the assets of PADCo. On March 4, 2016, Monsanto exercised its option to acquire 100% of the outstanding shares of PADCo and paid the Company an option exercise fee of $1,000,000. From the acquisition of PADCo, Monsanto received a worldwide, exclusive right to use the Company’s proprietary delivery technology in the field of agriculture. The Company recorded the exercise fee received as a gain on disposition of a financial instrument in its consolidated statement of operations and comprehensive loss for the year ended December 31, 2016.

(c) Bristol-Myers Squibb (“BMS”) collaboration

On May 10, 2010 the Company announced the expansion of its research collaboration with BMS. Under the new agreement, BMS uses small interfering RNA (“siRNA”) molecules formulated by the Company in LNP technology to silence target genes of interest. BMS is conducting the preclinical work to validate the function of certain genes and share the data with the Company. The Company can use the preclinical data to develop RNAi therapeutic drugs against the therapeutic targets of interest. The Company received $3,000,000 from BMS concurrent with the signing of the agreement and recorded the amount as deferred revenue. The Company is required to provide a pre-determined number of LNP batches over the four-year agreement. BMS has a first right to negotiate a licensing agreement on certain RNAi products developed by the Company that evolve from BMS validated gene targets.

Revenue from the May 10, 2010 agreement with BMS is being recognized as the Company produces the related LNP batches.

Revenue earned for the year ended December 31, 2014 relates to batches shipped to BMS during the period. In August 2014, the agreement expired and both companies' obligations under the agreement ended.

(d) License and Development and Supply Agreement with Dicerna Pharmaceuticals, Inc. (“Dicerna”)

On November 16, 2014, the Company signed a License Agreement and a Development and Supply Agreement (together, the “Agreements”) with Dicerna related to development, manufacture, and commercialization of products directed to the treatment of Primary Hyperoxaluria 1 (“PH1”). In consideration for the rights granted under the Agreements, Dicerna paid the Company an upfront cash payment of $2,500,000. The Company is also entitled to receive payments from Dicerna on the manufacturing and services provided, as well as further payments with the achievement of development and regulatory milestones of $22,000,000 in aggregate, and potential commercial royalties. Further, under the Agreements, a joint development committee has been established to provide guidance and direction on the progression of the collaboration.

The Company determined the deliverables under the Agreements included the rights granted, participation in the joint development committee, materials manufactured and other services provided, as directed under the joint development committee. The license and participation in the joint development committee have been determined by the Company to not have standalone value due to the uniqueness of the subject matter under the Agreements. Therefore, these deliverables are treated as one unit of accounting and recognized as revenue over the performance period. In September 2016, Dicerna announced the discontinuation of their DCR-PH1 program using the Company's technology. As such, the Company revised the completion date of performance period from March 2017 to September 30, 2016, at which time the Company had no further remaining performance obligations. This resulted in the recognition of $1,066,000 in Dicerna license fee revenue for the year ended December 31, 2016.

The Company has determined that manufacturing services and other services provided have standalone value, as a separate statement of work is executed and invoiced for each manufacturing or service work order. The relative fair values are determined as a batch price or fee is estimated upon the execution of each work order, with actual expenditures charged at comparable market rates with embedded margins on each work order.

Manufacturing work orders are invoiced at the time of execution of the work order, at the initiation of manufacture, and at the release of materials. The Company has deferred the recognition of revenue on all cash deposit payments received for manufacturing work orders until acceptance of inventory. Revenue from service work orders is recognized as the services are performed.

The Company believes the development and regulatory milestones are substantive, due to the existence of substantive uncertainty upon the execution of the arrangement, and that the achievement of the development and regulatory events are based in part on the Company’s performance and the occurrence of a specific outcome resulting from performance. The Company has not received any milestone payments to date.

(e) Agreements with Spectrum Pharmaceuticals, Inc. (“Spectrum”)

On May 6, 2006, the Company signed a number of agreements with Talon Therapeutics, Inc. (“Talon”, formerly Hana Biosciences, Inc.) including the grant of worldwide licenses (the “Talon License Agreement”) for three of the Company’s chemotherapy products, Marqibo®, Alocrest ™ (Optisomal Vinorelbine) and Brakiva ™ (Optisomal Topotecan).

On August 9, 2012, the Company announced that Talon had received accelerated approval for Marqibo from the FDA for the treatment of adult patients with Philadelphia chromosome negative acute lymphoblastic leukemia in second or greater relapse or whose disease has progressed following two or more anti-leukemia therapies. Marqibo is a liposomal formulation of the chemotherapy drug vincristine. In the year ended December 31, 2012, the Company received a milestone of $1,000,000 based on the FDA’s approval of Marqibo and will receive royalty payments based on Marqibo’s commercial sales. There are no further milestones related to Marqibo but the Company is eligible to receive total milestone payments of up to $18,000,000 on Alocrest and Brakiva.

Talon was acquired by Spectrum in July 2013. The acquisition did not affect the terms of the license between Talon and the Company. On September 3, 2013, Spectrum announced that they had shipped the first commercial orders of Marqibo. In the year ended December 31, 2016, the Company recorded $212,000 in Marqibo royalty revenue (2015 - $240,000, 2014 -$190,000). In the year ended December 31, 2016, the Company accrued $5,000 in royalties due to TPC in respect of the Marqibo royalty earned by the Company (see note 10).

5. Property and equipment

December 31, 2016	Cost	Accumulated depreciation	Net book value
Lab equipment	$ 7,894	$ (4,305)	$ 3,589
Leasehold improvements	4,928	(4,454)	474
Computer hardware and software	2,103	(1,665)	438
Furniture and fixtures	374	(314)	60
Assets under construction	$ 2,384	$ —	$ 2,384
	$ 17,683	$ (10,738)	$ 6,945

December 31, 2015	Cost	Accumulated depreciation	Net book value
Lab equipment	$ 5,910	$ (3,748)	$ 2,162
Leasehold improvements	4,681	(4,189)	492
Computer hardware and software	2,014	(1,487)	527
Furniture and fixtures	307	(305)	2
	$ 12,912	$ (9,729)	$ 3,183

As at December 31, 2016, all of the Company’s property and equipment are currently in use and no impairment has been recorded.

6. Share capital

(a) Financing

On March 26, 2014, the Company completed an underwritten public offering of 2,125,000 common shares, at a price of $28.50 per share, representing gross proceeds of $60,562,000. The Company also granted the underwriters a 30-day option to purchase an additional 318,750 shares for an additional $9,084,000 to cover any over-allotments. The underwriters did not exercise the option. The cost of financing, including commissions and professional fees, was $4,085,000, resulting in net proceeds of $56,477,000.

On March 25, 2015, the Company announced that it had completed an underwritten public offering of 7,500,000 common shares, at a price of $20.25 per share, representing gross proceeds of $151,875,000. The Company also granted the underwriters a 30-day option to purchase an additional 1,125,000 shares for an additional $22,781,000 to cover any over-allotments. The underwriters did not exercise the option. The cost of financing, including commissions and professional fees, was $9,700,000, resulting in net proceeds of $142,177,000.

(b) Authorized share capital

The Company's authorized share capital consists of an unlimited number of common and preferred shares without par value.

(c) Warrants to purchase common shares

During the year ended December 31, 2016, there were 170,500 warrants exercised for $445,000 in cash (December 31, 2015 – 18,750 warrants for $42,000) and no warrants were exercised using the cashless exercise provision (December 31, 2015 – 0 warrants for 0 common shares). In June 2016, 8,000 of the Company's warrants expired. The decrease in fair value from the previous balance sheet date relating to the expired warrants has been included in the total decrease in fair value of warrant liability in the Company's statement of comprehensive loss for the year ended December 31, 2016 of $530,000.

The following table summarizes the Company's warrant activity for the years ended December 31, 2016 and 2015:

	Common shares purchasable upon exercise of warrants	Weighted average exercise price (C$)	Weighted average exercise price (US$)	Range of exercise prices (C$)			Range of exercise prices (US$)			Weighted average remaining contractual life (years)	Aggregate intrinsic value (C$)	Aggregate intrinsic value (US$)
Balance, December 31, 2014	398,250	$ 2.95	$ 2.67	$2.60	—	$ 3.35	$2.35	—	$ 3.03	1.8	$ 5,902	$ 5,343
Exercised	(18,750)	2.88	2.25	2.60	—	3.35	2.03	—	2.62			
Balance, December 31, 2015	379,500	$ 2.95	$ 2.13	$2.60	—	$ 3.35	$2.03	—	$ 2.62	0.8	1,217	$ 879
Exercised	(170,500)	3.35	2.53	3.35	—	3.35	2.53	—	2.53			
Expired	(8,000)	3.35	2.53	3.35	—	3.35	2.53	—	2.53			
Balance, December 31, 2016	201,000	$ 2.60	$ 1.94	$2.60	—	$ 2.60	$ 1.94	—	$ 1.94	0.2	$ 139	$ 104

The aggregate intrinsic value in the table above is calculated based on the difference between the exercise price of the warrants and the quoted price of the Company's common stock as of the reporting date.

All of the Company's warrants were exercisable as of December 31, 2016.

The weighted average Black-Scholes option-pricing assumptions and the resultant fair values are as follows for warrants outstanding at December 31, 2016 and 2015 are as follows:

	As at December 31	
	2016	2015
Dividend yield	**—%**	—%
Expected volatility	**41.95%**	49.07%
Risk-free interest rate	**0.76%**	0.48%
Expected average term (years)	**0.2 years**	0.6 years
Fair value of warrants outstanding	**$ 0.53**	$ 2.33
Aggregate fair value of warrants outstanding	**$ 107**	$ 883
Number of warrants outstanding	**201,000**	379,500

The value of the Company's warrants is particularly sensitive to changes in the Company's share price and the estimated share price volatility.

(d) Stock-based compensation

The Company has seven share-based compensation plans; the “2007 Plan”, the “2011 Plan”, the "2016 Plan", two “Designated Plans” (together, the “Arbutus Plans”), the “Protiva Option Plan”, and the "OnCore Option Plan".

On June 22, 2011, the shareholders of the Company approved an omnibus stock-based compensation plan (the “2011 Plan”). The Company’s pre-existing 2007 Plan was limited to the granting of stock options as equity incentive awards whereas the 2011 Plan also allows for the issuance of tandem stock appreciation rights, restricted stock units and deferred stock units (collectively, and including options, referred to as “Awards”). The 2011 Plan replaces the 2007 Plan. The 2007 Plan will continue to govern the options granted thereunder. No further options will be granted under the Company’s 2007 Plan.

Under the Company’s 2007 Plan the Board of Directors granted options to employees, directors and consultants of the Company. The exercise price of the options was determined by the Company’s Board of Directors but was always at least equal to the closing market price of the common shares on the day preceding the date of grant and the term of options granted did not exceed 10 years. The options granted generally vested over three years for employees and immediately for directors.

Under the Company’s 2011 Plan the Board of Directors may grant options, and other types of Awards, to employees, directors and consultants of the Company. The exercise price of the options is determined by the Company’s Board of Directors but will be at least equal to the closing market price of the common shares on the day preceding the date of grant and the term may not exceed 10 years. Options granted generally vest over three years for employees and immediately for directors.

At the Company’s annual general and special meeting of shareholders on May 8, 2014 and July 9, 2015, the shareholders of the Company approved respectively, a 800,000 and a 3,500,000 increase in the number of stock-based compensation awards that the Company is permitted to issue under the 2011 Plan.

At the Company’s annual general and special meeting of shareholders on May 19, 2016, the shareholders of the Company approved the adoption of the Company's 2016 Omnibus Share and Incentive Plan (the "2016 Plan") and the reserve of 5,000,000 shares of the Company issuable pursuant to awards under the 2016 Plan. These include both equity-classified and liability-classified stock options. The Company's 2011 Omnibus Share Compensation Plan, as amended, also remains in effect.

Additionally, the Company granted a total of 200,000 options in 2013 to two executive officers in conjunction with their new appointments as executive officers. These options were granted in accordance with the policies of the Toronto Stock Exchange and pursuant to newly designated share compensation plans (the “Designated Plans”). The Designated Plans are governed by substantially the same terms as the 2011 Plan. Hereafter, information on options governed by the 2007 Plan, the 2011 Plan, the 2016 Plan and the Designated Plans is presented on a consolidated basis as the terms of the five plans are similar. Information on the Protiva Option Plan and the OnCore Option Plan are presented separately.

Stock option activity for the Arbutus Plans

Equity-classified stock option activity:

	Number of optioned common shares	Weighted average exercise price (C$)	Weighted average exercise price (US$)	Aggregate intrinsic value (C$)	Aggregate intrinsic value (US$)
Balance, December 31, 2013	1,730,765	$ 4.45	$ 4.32	$ 7,030	$ 6,826
Options granted	431,125	13.63	12.34		
Options exercised	(622,752)	4.62	4.18	7,650	6,926
Options forfeited, canceled or expired	(9,000)	8.20	7.42		
Balance, December 31, 2014	1,530,138	6.95	6.29	16,573	15,004
Options granted	1,309,625	N/A	16.57		
Options exercised	(398,293)	5.03	3.93	6,887	5,386
Options forfeited, canceled or expired	(151,207)	19.29	15.09		
Balance, December 31, 2015	2,290,263	15.53	11.22	1,376	994
Options reclassified to liability[1]	(718,333)	7.24	5.23	836	604
Options granted	1,789,599	N/A	3.89		
Options exercised	(56,125)	2.88	2.18	160	121
Options forfeited, canceled or expired	(394,200)	13.49	10.18		
Balance, December 31, 2016	2,911,204	$ 11.45	$ 8.53	$ 75	$ 56

1. Due to the change in the Company's functional currency as of January 1, 2016, certain stock option awards with exercise prices denominated in Canadian dollars changed from equity classification to liability classification - see note 2.

Options under the Arbutus Plans expire at various dates from March 21, 2017 to November 28, 2026.

The following table summarizes information pertaining to stock options outstanding at December 31, 2016 under the Arbutus Plans:

			Options outstanding December 31, 2016			Options exercisable December 31, 2016	
Range of Exercise prices (US$)			Number of options outstanding	Weighted average remaining contractual life (years)	Weighted average exercise price (US$)	Number of options exercisable	Weighted average exercise price (US$)
$1.12	to	$3.05	121,725	6.4	2.23	75,225	1.78
$3.28	to	$3.84	209,033	8.4	3.64	62,033	3.69
$3.94	to	$3.94	1,369,849	9.2	3.94	—	N/A
$3.98	to	$8.64	81,713	8.1	4.49	71,380	4.38
$9.11	to	$9.73	118,843	7.8	9.44	91,375	9.44
$9.88	to	$13.89	201,000	8.1	13.42	74,271	13.26
$17.57	to	$17.57	809,041	8.2	17.57	324,957	17.57
$1.12	to	$17.57	2,911,204	8.6	$ 8.53	699,241	$ 11.77

At December 31, 2016, there were 699,241 options exercisable (December 31, 2015 - 938,730; December 31, 2014 – 1,088,908). The weighted average remaining contractual life of exercisable options as at December 31, 2016 was 7.5 years.
The aggregate intrinsic value of in-the-money options exercisable at December 31, 2016 was $56,000.

A summary of the Company's non-vested stock option activity and related information for the year ended December 31, 2016 is as follows:

	Number of optioned common shares	Weighted average fair value (C$)	Weighted average fair value (US$)
Non-vested at December 31, 2015	1,351,541	$ 15.69	$ 11.34
Options reclassified to liability-options[1]	(134,000)	10.80	7.80
Options granted	1,789,599	5.15	3.89
Options vested	(472,479)	14.20	10.72
Non-vested options forfeited	(322,698)	9.70	7.33
Non-vested at December 31, 2016	2,211,963	$ 7.17	$ 5.34

1. Non-vested liability-classified stock options as at January 1, 2016

The weighted average remaining contractual life for options expected to vest at December 31, 2016 was 9.0 years and the weighted average exercise price for these options was $7.50 (C$10.07) per share.

The aggregate intrinsic value of options expected to vest as at December 31, 2016 was $0 (December 31, 2015 - $10,000; December 31, 2014 -$2,626,000).

The total fair value of options that vested during the year ended December 31, 2016 was $5,058,000 (December 31, 2015 - $1,718,000; December 31, 2014 -$2,505,000).

Valuation assumptions for the Arbutus Plans

On March 3, 2015, the Company voluntarily de-listed from the Toronto Stock Exchange. All stock options granted after March 3, 2015 were denominated in US dollars based on the Company's stock price on the NASDAQ. The methodology and assumptions used to estimate the fair value of stock options at date of grant under the Black-Scholes option-pricing model remain unchanged. Assumptions on the dividend yield are based on the fact that the Company has never paid cash dividends and has no present intention to pay cash dividends. Assumptions about the Company's expected stock-price volatility are based on the historical volatility of the Company's publicly traded stock. The risk-free interest rate used for each grant is equal to the zero coupon rate for instruments with a similar expected life. Expected life assumptions are based on the Company's historical data. The Company recognizes forfeitures as they occur, and the effects of forfeitures are reflected in stock-based compensation expense recorded in the statement of operations and comprehensive loss for the year ended December 31, 2016. The weighted average option pricing assumptions for options granted during the year are as follows:

	Year ended December 31		
	2016	2015	2014
Dividend yield	**—%**	—%	—%
Expected volatility	**77.99%**	76.88%	101.08%
Risk-free interest rate	**0.90%**	1.10%	2.25%
Expected average option term	**7.3 years**	7.5 years	8.8 years

Liability-classified stock option activity:

Valuation assumptions

Liability options are re-measured to their fair values at each reporting date, using the Black-Scholes valuation model. The methodology and assumptions prevailing at the re-measurement date used to estimate the fair values of liability options remain unchanged from the date of grant of equity classified stock option awards. Assumptions about the Company's expected stock-price volatility are based on the historical volatility of the Company's publicly traded stock. The risk-free interest rate used for each grant is equal to the zero coupon rate for instruments with a similar expected life. Expected life assumptions are based on the Company's historical data. The weighted average Black-Scholes option-pricing assumptions and the resultant fair values as at the reclassification date of January 1, 2016, and as at December 31, 2016, are presented in the following table:

	December 31, 2016	January 1, 2016
Dividend yield	**—%**	—%
Expected volatility	**66.18%**	97.78%
Risk-free interest rate	**0.88%**	0.86%
Expected average term (years)	**3.6**	5.3
Fair value of options outstanding	**$ 0.87**	$ 3.33
Fair value of vested liability-classified options (in thousands)	**$ 553**	$ 1,909

Stock option activity for liability options

	Number of optioned common shares	Weighted average exercise price (C$)	Weighted average exercise price (US$)	Aggregate intrinsic value (US$)
Balance, January 1, 2016	718,333	$ 7.24	$ 5.23	$ 604
Options exercised	(30,000)	3.00	2.30	54
Options forfeited, canceled or expired	(49,833)	8.29	6.17	—
Balance, December 31, 2016	638,500	$ 7.35	$ 5.48	$ 116

Liability options expire at various dates from August 6, 2017 to May 7, 2024.

The following table summarizes information pertaining to liability options outstanding at December 31, 2016:

			Options outstanding December 31, 2016			Options exercisable December 31, 2016	
Range of Exercise prices (US$)			Number of options outstanding	Weighted average remaining contractual life (years)	Weighted average exercise price (US$)	Number of options exercisable	Weighted average exercise price (US$)
$1.27	to	$1.79	120,000	3.7	$ 1.48	120,000	$ 1.48
$2.87	to	$3.84	120,000	3.6	3.42	120,000	3.42
$3.97	to	$4.28	74,000	1.6	4.22	74,000	4.22
$4.84	to	$6.18	76,250	0.7	5.83	76,250	5.83
$6.79	to	$6.79	150,000	6.8	6.79	150,000	6.79
$9.32	to	$12.21	98,250	6.0	11.53	83,500	11.44
$1.27	to	$12.21	638,500	4.2	$ 5.48	623,750	$ 5.32

At December 31, 2016, there were 623,750 liability options exercisable with a weighted average exercise price of $5.32 (C$7.14). The weighted average remaining contractual life of exercisable liability options as at December 31, 2016 was 4.1 years.

A summary of the Company's non-vested liability stock option activity and related information at December 31, 2016 is as follows:

	Number of optioned common shares	Weighted average fair value (US$)
Non-vested at January 1, 2016	134,000	$ 3.61
Options vested	(93,250)	0.67
Non-vested options forfeited	(26,000)	0.04
Non-vested at December 31, 2016	14,750	$ 0.92

The weighted average remaining contractual life for liability options expected to vest at December 31, 2016 was 7.1 years and the weighted average exercise price for these options was $12.06 (C$16.19) per share.

The total fair value of liability options that vested during the year ended December 31, 2016 was $62,200.

Protiva Option Plan

On May 30, 2008, as a condition of the acquisition of Protiva Biotherapeutics Inc., a total of 350,457 common shares of the Company were reserved for the exercise of 519,073 Protiva share options (“Protiva Options”). The Protiva Options have an exercise price of C$0.30, were fully vested and exercisable as of May 30, 2008. As at December 31, 2016, the outstanding options expire at various dates from April 3, 2017 to March 1, 2018 and upon exercise each option will be converted into approximately 0.6752 shares of the Company (the same ratio at which Protiva common shares were exchanged for Company common shares at completion of the acquisition of Protiva). The Protiva Options are not part of the Arbutus Plans and the Company is not permitted to grant any further Protiva Options.

The following table sets forth outstanding options under the Protiva Option Plan:

	Number of Protiva Options	Equivalent number of Company common shares	Weighted average exercise price (C$)	Weighted average exercise price (US$)
Balance, December 31, 2013	472,885	319,274	$ 0.30	0.29
Options exercised	(38,145)	(25,754)	0.30	0.27
Options forfeited, canceled or expired	(1,000)	(675)	0.30	0.27
Balance, December 31, 2014	433,740	292,845	0.30	0.27
Options exercised	(358,675)	(242,164)	0.30	0.23
Options forfeited, canceled or expired	(8,065)	(5,445)	0.30	0.23
Balance, December 31, 2015	67,000	45,236	0.30	0.22
Options exercised	(21,000)	(14,178)	0.30	0.23
Options forfeited, canceled or expired	—	—	—	N/A
Balance, December 31, 2016	46,000	31,058	$ 0.30	$ 0.22

The weighted average remaining contractual life of exercisable Protiva Options as at December 31, 2016 was 1.0 years.

The aggregate intrinsic value of Protiva Options outstanding at December 31, 2016 was $56,000. The intrinsic value of Protiva Options exercised in the year ended December 31, 2016 was $49,000 (2015 - $1,249,000; 2014 -$378,000).

OnCore Option Plan

As at the acquisition date in March 2015, the Company reserved 184,332 shares for the future exercise of OnCore (Arbutus Inc.) stock options. The total fair value of OnCore stock options at the date of acquisition has been determined to be $3,287,000, using the Black-Scholes pricing model with an assumed risk-free interest rate of 0.97%, volatility of 78%, a zero dividend yield and an expected life of 8 years, which are consistent with the assumption inputs used by the Company to determine the fair value of its options. Of the total fair value, $1,127,000 has been attributed as pre-combination service and included as part of the total acquisition consideration. The post-combination attribution of $2,160,000 will be recognized as compensation expense over the vesting period of the stock options through to December 2018.

Following the merger, the Company is not permitted to grant any further options under the OnCore Option Plan. The Company has included $577,000 of compensation expense related to the vesting of Arbutus Inc. stock options for the year ended December 31, 2016.

The following table sets forth outstanding options under the OnCore Option Plan:

	Number of OnCore Options	Equivalent number of Company common shares	Weighted average exercise price (US$)
Balance, December 31, 2015	183,040	184,332	$ 0.57
Options exercised	—	—	N/A
Options forfeited, canceled or expired	—	—	N/A
Balance, December 31, 2016	183,040	184,332	$ 0.57

At December 31, 2016, there were 119,988 OnCore options (120,835 Arbutus equivalent) exercisable with a weighted average exercise price of $0.57. The weighted average remaining contractual life of exercisable options as at December 31, 2016 was 7.9 years. The aggregate intrinsic value of in-the-money options exercisable at December 31, 2016 was $226,000.

A summary of the OnCore Option Plan's non-vested stock option activity and related information for the year ended December 31, 2016 is as follows:

	Number of OnCore Options	Equivalent number of Company common shares	Weighted average fair value (US$)
Non-vested at December 31, 2015	96,382	97,063	$ 16.42
Options vested	(33,331)	(33,566)	16.80
Non-vested options forfeited	—	—	N/A
Non-vested at December 31, 2016	63,051	63,497	$ 16.80

The weighted average remaining contractual life for options expected to vest at December 31, 2016 was 7.9 years and the weighted average exercise price for these options was $0.57 per share.

The aggregate intrinsic value of options expected to vest as at December 31, 2016 was $119,000.

The total fair value of options that vested during the year ended December 31, 2016 was $560,000.

Stock-based compensation expense

Total stock-based compensation expense is comprised of: (1) the vesting options awarded to employees under the Arbutus and OnCore option plans calculated in accordance with the fair value method as described above; and (2) the expiration of repurchase rights related to the post-combination service portion of the total fair value of shares issued to Arbutus Inc.'s employees.

The total stock-based compensation has been recorded in the consolidated statement of operations and comprehensive income (loss) as follows:

	Year ended December 31		
	2016	2015	2014
Research, development, collaborations and contracts expenses	**$ 11,155**	$ 7,868	$ 2,343
General and administrative expenses	**28,004**	14,225	940
Total	**$ 39,159**	$ 22,093	$ 3,283

At December 31, 2016, there remains $8,835,000 of unearned compensation expense related to unvested equity employee stock options to be recognized as expense over a weighted-average period of approximately 12 months, as well as a remaining $7,912,000 unearned compensation expense related to unexpired repurchase rights on shares issued to Arbutus Inc. employees to be recognized as expense over a weighted average period of approximately 5 months.

Awards outstanding and available for issuance

Combining all of the Company's share-based compensation plans, at December 31, 2016, the Company has 3,765,094 options outstanding and a further 6,790,414 Awards available for issuance.

(e) Replacement awards

Included in the total consideration transferred for the acquisition of Arbutus Inc. in March 2015 are common shares issued as replacement awards, which are subject to repurchase provisions. The total fair value of these common shares attributed to the post acquisition period was approximately $56,934,000 and is being recognized as compensation expense over the expiry period of repurchase provision rights subsequent to the acquisition date.

In July 2015, in conjunction with amendments to the employment contracts of Arbutus Inc.'s founding executives, the Company amended the repurchase provision rights period of expiry from August 2018 to August 2017. This amendment results in an acceleration of compensation expense recognized in each subsequent period by approximately $1,900,000 per quarter, effective in Q3 2015.

In April and May 2016, two of the four shareholders of these common shares subject to repurchase provision departed from the Company, resulting in accelerated expiry of the repurchase provision. These departures triggered the recognition of an incremental compensation expense of $14,008,000 during the year, for a total of $31,986,000 (2015 - $16,687,000) in stock-based compensation expense related to the expiration of repurchase provision rights for the year-ended December 31, 2016. The total unrecognized compensation expense related to the expiry of repurchase provisions was $7,972,000 as at December 31, 2016.

7. Government grants and refundable investment tax credits

Government grants and refundable investment tax credits have been recorded as a reduction in research and development expenses.

(a) Government grants

On December 22, 2014, the Company entered into a Manufacturing and Clinical Trial Agreement with the University of Oxford to provide the new TKM-Ebola-Guinea therapeutic product for clinical studies in West Africa. The University of Oxford is the representative of the International Severe Acute Respiratory and Emerging Infection Consortium (ISARIC), who conducted clinical studies of TKM-Ebola-Guinea in Ebola virus infected patients, with funding provided by the Wellcome Trust. In January 2015, the Company received $1,098,000 from ISARIC for materials manufactured and used in the March 2015 TKM-Ebola-Guinea Phase II single arm trial conducted in Sierra Leone. In June 2015, the Company announced closing of the enrollment for the trial as it reached a futility boundary, which was a predefined statistical endpoint. No further funding is expected under this grant.

Government grants for the year ended December 31, 2016 include $129,000 in funding from the U.S. National Institutes of Health (2015 - $1,245,000).

(b) Refundable investment tax credits

The Company's estimated claim for refundable Scientific Research and Experimental Development investment tax credits for the year ended December 31, 2016 is $145,000 (2015 - $196,000).

8. Income taxes

Income tax (recovery) expense varies from the amounts that would be computed by applying the combined Canadian federal and provincial income tax rate of 26% (2015 - 26%; 2014 – 26%) to the loss before income taxes as shown in the following tables:

	Year ended December 31,		
	2016	2015	2014
Computed taxes (recoveries) at Canadian federal and provincial tax rates	**$ (127,183)**	$ (20,100)	$ (10,097)
Permanent and other differences	(3,598)	769	2,594
Change in valuation allowance - other	17,043	3,675	6,599
Difference due to income taxed at foreign rates	(47,962)	(7,874)	—
Stock-based compensation	9,727	7,345	904
Impairment of goodwill	46,971	—	—
Deferred income tax recovery	**$ (105,002)**	$ (16,185)	**$ —**

As at December 31, 2016, the Company has investment tax credits available to reduce Canadian federal income taxes of $10,245,000 (December 31, 2015 - $7,969,000) and provincial income taxes of $5,337,000 (December 31, 2015 - $3,869,000), expiring between 2027 and 2036. In addition, the Company has research and development credits of $1,454,000 available for indefinite carry-forward, which can be used to reduce future taxable income in the U.S.

At December 31, 2016, the Company has scientific research and experimental development expenditures of $65,332,000 (December 31, 2015 - $51,823,000) available for indefinite carry-forward and $71,460,000 (December 31, 2015 - $24,745,000) of net operating losses due to expire between 2027 and 2035 and which can be used to offset future taxable income in Canada.

As at December 31, 2016, the Company has $14,621,000 of net operating losses due to expire between 2030 and 2036, which can be used to offset future taxable income in the U.S. Future use of a portion of the U.S. loss carry-forwards is subject to limitations under the Internal Revenue Code Section 382. As a result of ownership changes occurring on October 1, 2014 and March 4, 2015, the Company's ability to use these losses may be limited. Losses incurred to date may be further limited if a subsequent change in control occurs.

On November 23, 2011, the Company was registered as a corporation under the Business Activity Act in the province of British Columbia. Under this program, provincial corporation tax charged on foreign income earned from the Company's patents will be eligible for a 75% tax refund up to a maximum of C$8,000,000.

Significant components of the Company's deferred tax assets and liabilities are shown below:

	As at December 31,	
	2016	**2015**
Deferred tax assets (liabilities):		
Non-capital loss carryforwards	**$ 24,275**	$ 13,932
Research and development deductions	**16,986**	13,474
Book amortization in excess of tax	**451**	2,142
Share issue costs	**486**	777
Revenue recognized for tax purposes in excess of revenue recognized for accounting purposes	**410**	281
Tax value in excess of accounting value in lease inducements	**58**	77
Federal investment tax credits	**8,630**	6,303
Provincial investment tax credits	**5,270**	3,879
In-process research and development	**(41,263)**	(146,324)
Upfront license fees	**536**	629
Other	**1,435**	—
Total deferred tax assets (liabilities)	**17,274**	(104,830)
Valuation allowance	**(58,537)**	(41,494)
Net deferred tax assets (liabilities)	**$ (41,263)**	$ (146,324)

9. Loan payable

On December 27, 2016, the Company obtained a loan of $12,001,000 from Wells Fargo in the form of a promissory note for the purpose of financing its operations, including the expansion of laboratory facilities for its U.S. operations. The loan accrues interest daily based on an interest rate with a variable and fixed component. The variable component is the one-month London Interbank Offered Rate (LIBOR), and the fixed component is a margin of 1.25% per annum. The carrying value of the loan is recorded at the principal plus any accrued interest not yet paid. The loan is due on December 27, 2019.

The loan is secured by the Company's cash of $12,601,000, and is restricted from use until the loan has been settled in full. The Company invested the restricted cash in a two-year fixed certificate of deposit with Wells Fargo (see note 2) and is presented as restricted investment in the Company's balance sheet for the period ended December 31, 2016.

10. Contingencies and commitments

Property lease

On August 9, 2016, the Company signed a lease agreement for 701 Veterans Circle, Warminster, Pennsylvania. The facility has approximately 35,000 square feet of laboratory and office space. Renovations commenced in October 2016 and, once completed, this facility will replace the current Doylestown, Pennsylvania facility. The term of the lease is 10.6 years and expires on April 30, 2027, with the option to extend for up to two 5 -year terms. The estimated total facility commitment, including operating costs, is approximately $6,900,000.

The total minimum rent and estimated operating cost commitment, net of lease inducements, for both our head office in Burnaby and new Warminster facility is as follows:

Year ended December 31, 2017	$ 1,475,444
Year ended December 31, 2018	1,539,323
Year ended December 31, 2019	1,203,863
Year ended December 31, 2020	656,469
Year ended December 31, 2021 and after	4,486,194
	$ 9,361,293

The Company’s lease expense, for the year ended December 31, 2016 of $1,341,000 has been recorded in the consolidated statements of operations and comprehensive loss (2015 of $1,158,000; 2014 of $1,133,000).

Product development partnership with the Canadian Government

The Company entered into a Technology Partnerships Canada (TPC) agreement with the Canadian Federal Government on November 12, 1999. Under this agreement, TPC agreed to fund 27% of the costs incurred by the Company, prior to March 31, 2004, in the development of certain oligonucleotide product candidates up to a maximum contribution from TPC of $7,179,000 (C$9,330,000). As at December 31, 2016, a cumulative contribution of $2,756,000 (C$3,702,000) had been received and the Company does not expect any further funding under this agreement. In return for the funding provided by TPC, the Company agreed to pay royalties on the share of future licensing and product revenue, if any, that is received by the Company on certain non-siRNA oligonucleotide product candidates covered by the funding under the agreement. These royalties are payable until a certain cumulative payment amount is achieved or until a pre-specified date. In addition, until a cumulative amount equal to the funding actually received under the agreement has been paid to TPC, the Company agreed to pay 2.5% royalties on any royalties the Company receives for Marqibo. For the year ended December 31, 2016, the Company earned royalties on Marqibo sales in the amount of $212,000 (see note 4(e)), resulting in $5,000 recorded by the Company as royalty payable to TPC (2015 - $6,000; 2014 -$5,000). The cumulative amount paid or accrued up to December 31, 2016 was $17,000, resulting in the contingent amount due to TPC being $2,741,000 (C$3,680,000).

Arbitration with the University of British Columbia ("UBC")

Certain early work on lipid nanoparticle delivery systems and related inventions was undertaken at UBC. These inventions are licensed to the Company by UBC under a license agreement, initially entered in 1998 as amended in 2001, 2006 and 2007. The Company has granted sublicenses under the UBC license to Alnylam as well as to Talon. Alnylam has in turn sublicensed back to the Company under the licensed UBC patents. In 2009, the Company entered into a supplemental agreement with UBC, Alnylam and Acuitas, in relation to a separate research collaboration to be conducted among UBC, Alnylam and Acuitas to which the Company has license rights. The settlement agreement signed in late 2012 to resolve the litigation among the Company, Alnylam, and Acuitas, provided for the effective termination of all obligations under such supplemental agreement as between and among all litigants.

On November 10, 2014, UBC filed a notice of arbitration against the Company and on January 16, 2015, filed a Statement of Claim, which alleges entitlement to $3,500,000 in allegedly unpaid royalties based on publicly available information, and an unspecified amount based on non-public information. UBC also seeks interest and costs, including legal fees. The Company continues to dispute UBC's allegations. The proceeding has been bifurcated into phases, beginning with a liability phase, addressing UBC's Claims and Arbutus' Counterclaim, that is presently set for hearing from June 19-30, 2017. However, the Company notes that arbitration is subject to inherent uncertainty and an arbitrator could rule against the Company. The Company has not recorded an estimate of the possible loss associated with this arbitration, due to the uncertainties related to both the likelihood and amount of any possible loss or range of loss. However, the defense of arbitration and related matters are costly and may divert the attention of the Company's management and other resources that would otherwise be engaged in other activities. Costs related to the arbitration have been recorded in the statement of operations and comprehensive loss by the Company as incurred.

Contingent consideration from Arbutus Inc. acquisition of Enantigen and License Agreements between Enantigen and Baruch S. Blumberg Institute (Blumberg) and Drexel

In October 2014, Arbutus Inc. acquired all of the outstanding shares of Enantigen pursuant to a stock purchase agreement. Through this transaction, Arbutus Inc. acquired a HBV surface antigen secretion inhibitor program and a capsid assembly inhibitor program, each of which are now assets of Arbutus, following the Company's merger with Arbutus Inc. in March 2015.

Under the stock purchase agreement, Arbutus Inc. agreed to pay up to a total of $21,000,000 to Enantigen's selling stockholders upon the achievement of certain triggering events related to HBV therapies. The first triggering event is enrollment of the first patient in a Phase 1b clinical trial in HBV patients.

The regulatory, development and sales milestone payments had an estimated fair value of approximately $6,727,000 as at the date of acquisition of Arbutus Inc., and were treated as contingent consideration payable in the purchase price allocation. The contingent consideration was calculated based on information available at the date of acquisition, using a probability weighted assessment of the likelihood the milestones would be met and the estimated timing of such payments, and then the potential contingent payments were discounted to their present value using a probability adjusted discount rate that reflects the early stage nature of the development program, time to complete the program development, and overall biotech indices.

Contingent consideration is a financial liability and measured at its fair value at each reporting period, with any changes in fair value from the previous reporting period recorded in the statement of operations and comprehensive loss. For the period ended December 31, 2016, the Company performed an evaluation of the fair value of the contingent consideration using the probability weighted assessment of likelihood of milestone payments as described above. The Company determined the fair value of the contingent consideration has increased by $1,568,000 to $9,065,000 and the increase in fair value has been recorded in other losses in the statement of operations and comprehensive loss for the year ended December 31, 2016.

Drexel and Blumberg

In February 2014, Arbutus Inc. entered into a license agreement with Blumberg and Drexel that granted an exclusive, worldwide, sub-licensable license to three different compound series: cccDNA inhibitors, capsid assembly inhibitors and HCC inhibitors.

In partial consideration for this license, Arbutus Inc. paid a license initiation fee of $150,000 and issued warrants to Blumberg and Drexel. The warrants were exercised in 2014. Under this license agreement, Arbutus Inc. also agreed to pay up to $3,500,000 in development and regulatory milestones per licensed compound series, up to $92,500,000 in sales performance milestones per licensed product, and royalties in the mid-single digits based upon the proportionate net sales of licensed products in any commercialized combination. The Company is obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from the sub-licensees, subject to customary exclusions.

In November 2014, Arbutus Inc. entered into an additional license agreement with Blumberg and Drexel pursuant to which it received an exclusive, worldwide, sub-licensable license under specified patents and know-how controlled by Blumberg and Drexel covering epigenetic modifiers of cccDNA and STING agonists. In consideration for these exclusive licenses, Arbutus Inc. made an upfront payment of $50,000. Under this agreement, the Company will be required to pay up to $1,000,000 for each licensed product upon the achievement of a specified regulatory milestone and a low single digit royalty, based upon the proportionate net sales of compounds covered by this intellectual property in any commercialized combination. The Company is also obligated to pay Blumberg and Drexel a double digit percentage of all amounts received from its sub-licensees, subject to exclusions.

Research Collaboration and Funding Agreement with Blumberg

In October 2014, Arbutus Inc. entered into a research collaboration and funding agreement with Blumberg under which the Company will provide $1,000,000 per year of research funding for three years, renewable at the Company’s option for an additional three years, for Blumberg to conduct research projects in HBV and liver cancer pursuant to a research plan to be agreed upon by the parties. Blumberg has exclusivity obligations to Arbutus with respect to HBV research funded under the agreement. In addition, the Company has the right to match any third party offer to fund HBV research that falls outside the scope of the research being funded under the agreement. Blumberg has granted the Company the right to obtain an exclusive, royalty bearing, worldwide license to any intellectual property generated by any funded research project. If the Company elects to exercise its right to obtain such a license, the Company will have a specified period of time to negotiate and enter into a mutually agreeable license agreement with Blumberg. This license agreement will include the following pre negotiated upfront, milestone and royalty payments: an upfront payment in the amount of $100,000; up to $8,100,000 upon the achievement of specified development and regulatory milestones; up to $92,500,000 upon the achievement of specified commercialization milestones; and royalties at a low single to mid-single digit rates based upon the proportionate net sales of licensed products from any commercialized combination.

On June 5, 2016, the Company and Blumberg entered into an amended and restated research collaboration and funding agreement, primarily to: (i) increase the annual funding amount to Blumberg from $1,000,000 to $1,100,000; (ii) extend the initial term through to October 29, 2018; (iii) provide an option for the Company to extend the term past October 29, 2018 for two additional one year terms; and (iv) expand the Company's exclusive license under the Agreement to include the sole and exclusive right to obtain an exclusive, royalty-bearing, worldwide and all-fields license under Blumberg's rights in certain other inventions described in the agreement.

NeuroVive Pharmaceutical AB (“NeuroVive”)

In September 2014, Arbutus Inc. entered into a license agreement with NeuroVive that granted them an exclusive, worldwide, sub-licensable license to develop, manufacture and commercialize, for the treatment of HBV, oral dosage form sanglifehrin based cyclophilin inhibitors (including OCB-030).

In 2015, the Company discontinued the OCB-30 development program based on significant research and analysis. In July 2016, the Company provided NeuroVive with a notice of termination of the license agreement. The parties agreed to terminate the agreement in October 2016.

Cytos Biotechnology Ltd ("Cytos")

On December 30, 2014, Arbutus Inc. entered into an exclusive, worldwide, sub-licensable (subject to certain restrictions with respect to licensed viral infections other than hepatitis) license to six different series of compounds. The licensed compounds are Qbeta-derived virus-like particles that encapsulate TLR9, TLR7 or RIG-I agonists and may or may not be conjugated with antigens from the hepatitis virus or other licensed viruses. The Company has an option to expand this license to include additional viral infections other than influenza and Cytos will retain all rights for influenza, all non-viral infections, and all viral infections (other than hepatitis) for which it has not exercised its option.

In partial consideration for this license, the Company is obligated to pay Cytos up to a total of $67,000,000 for each of the six licensed compound series upon the achievement of specified development and regulatory milestones; for hepatitis and each additional licensed viral infection, up to a total of $110,000,000 upon the achievement of specified sales performance milestones; and tiered royalty payments in the high-single to low-double digits, based upon the proportionate net sales of licensed products in any commercialized combination. In June 2016, the Company discontinued the TLR9 development program based on significant levels of research and analysis (refer to note 3 above).

11. Concentrations of business risk

Credit risk

Credit risk is defined by the Company as an unexpected loss in cash and earnings if a collaborative partner is unable to pay its obligations in due time. The Company's main source of credit risk is related to its accounts receivable balance which principally represents temporary financing provided to collaborative partners in the normal course of operations.

The Company does not currently maintain a provision for bad debts as the majority of accounts receivable are from collaborative partners or government agencies and are considered low risk.

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at December 31, 2016 was the accounts receivable balance of $273,000 (2015 - $1,008,000).

All accounts receivable balances were current as at December 31, 2016 and December 31, 2015.

Significant collaborators and customers risk

We depend on a small number of collaborators and customers for a significant portion of our revenues (see note 4).

Liquidity Risk

Liquidity risk results from the Company's potential inability to meet its financial liabilities, for example payments to suppliers. The Company ensures sufficient liquidity through the management of net working capital and cash balances.

The Company's liquidity risk is primarily attributable to its cash and cash equivalents, and short-term investments. The Company limits exposure to liquidity risk on its liquid assets through maintaining its cash and cash equivalent, and short-term investments with high-credit quality financial institutions. Due to the nature of these investments, the funds are available on demand to provide optimal financial flexibility.

The Company believes that its current sources of liquidity are sufficient to cover its likely applicable short term cash obligations. The Company's financial obligations include accounts payable and accrued liabilities which generally fall due within 45 days. The net liquidity of the Company is considered to be the cash and cash equivalents and short-term investments less accounts payable and accrued liabilities.

	December 31, 2016	December 31, 2015
Cash, cash equivalents and short-term investments	**$ 130,559**	$ 181,304
Less: Accounts payable and accrued liabilities	**$ (9,910)**	$ (8,827)
	$ 120,649	$ 172,477

Foreign currency risk

The results of the Company's operations are subject to foreign currency transaction and translation risk as the Company's revenues and expenses are denominated in both Canadian and US dollars. The fluctuation of the Canadian dollar in relation to the US dollar will consequently have an impact upon the Company's reported income or loss and may also affect the value of the Company's assets, liabilities, and the amount of shareholders' equity both as recorded in the Company's financial statements, in the US functional currency, and as reported, for presentation purposes, in the US dollar.

The Company manages its foreign currency risk by using cash received in a currency to pay for expenses in that same currency, whenever possible. The Company's policy to maintain US and Canadian dollar cash and investment and short-term investment balances based on long term forecasts of currency needs thereby creating a natural currency hedge.

The Company has not entered into any agreements or purchased any instruments to hedge possible currency risks. The Company's exposure to Canadian dollar currency expressed in US dollars was as follows:

(in US$)	**December 31, 2016**
Cash and cash equivalents and short-term investments	**$ 43,094**

Accounts receivable		**289**
Accrued revenue		**128**
Accounts payable and accrued liabilities		**(3,238)**
	$	**40,273**

An analysis of the Company's sensitivity to foreign currency exchange rate movements is not provided in these financial statements as the Company's Canadian dollar cash holdings and expected Canadian dollar revenues are sufficient to cover Canadian dollar expenses for the foreseeable future.

12. Supplementary information

Accounts payable and accrued liabilities is comprised of the following:

		December 31, 2016		December 31, 2015
Trade accounts payable	**$**	**3,215**	$	2,610
Research and development accruals		**3,131**		2,358
Professional fee accruals		**498**		640
Deferred lease inducements		**350**		297
Payroll accruals		**2,178**		2,331
Other accrued liabilities		**538**		591
	$	**9,910**	$	8,827

13. Interim financial data (unaudited)

	2016				
	Q1	Q2	Q3	Q4	**Total**
Revenue	$ 603	$ 309	$ 774	$ (195)	**$ 1,491**
Loss from operations	(19,977)	(195,248)	(18,975)	(257,439)	**(491,639)**
Net loss	$ (15,874)	$ (130,000)	$ (19,595)	$ (218,695)	**$ (384,164)**
Basic and diluted net loss per share	$ (0.31)	$ (2.47)	$ (0.37)	$ (4.05)	**$ (7.24)**

	2015				
	Q1	Q2	Q3	Q4	**Total**
Revenue	$ 4,682	$ 3,440	$ 4,065	$ 12,686	**$ 24,873**
Loss from operations	(18,006)	(14,420)	(58,138)	(11,758)	**(102,322)**
Net loss	$ (11,989)	$ (14,886)	$ (28,982)	$ (5,264)	**$ (61,121)**
Basic and diluted net loss per share	$ (0.40)	$ (0.27)	$ (0.57)	$ (0.10)	**$ (1.34)**

14. Subsequent events

(a) Termination of License Agreement with Acuitas

In December 2013, the Company entered into a cross-license agreement with Acuitas Therapeutics Inc., or Acuitas. The terms of the cross-license agreement provided Acuitas with access to certain of the Company's earlier intellectual property generated prior to April 2010 for a specific field. On August 29, 2016, the Company provided Acuitas with notice that it considered Acuitas to be in material breach of the cross-license agreement. The cross-license agreement provides that it may be terminated upon any material breach by the other party 60 days after receipt of written notice of termination describing the material breach in reasonable detail. On October 25, 2016, Acuitas filed a Notice of Civil Claim in the Supreme Court of British Columbia seeking an order that the Company perform its obligations under the Cross License Agreement, for damages ancillary to specific performance, injunctive relief, interest and costs. The Company disputes Acuitas' position and have not recorded an estimate of the possible loss associated with this claim, due to the uncertainties related to both the likelihood and amount of any possible loss or range of loss. The Company has filed its response within the time frame prescribed by the Court.

On February 8, 2017, the Company announced that the Supreme Court of British Columbia granted Arbutus' request for a pre-trial injunction against Acuitas, preventing Acuitas from further sublicensing of Arbutus' lipid nanoparticle (LNP) technology until the end of October 2017, or further order of the Court. Under the terms of the pre-clinical injunction, Acuitas is prevented from entering into any new agreements which include sublicensing of Arbutus' LNP.

(b) LNP License with Alexion

On March 16, 2017, the Company announced that it had entered into an agreement to license its LNP delivery technology to Alexion. Under the terms of the agreement, the Company will receive $7,500,000 up front and subsequent payments up to $75,000,000 for the achievement of development, regulatory and commercial milestones as well as future royalties.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

As of the end of our fiscal year ended December 31, 2016, an evaluation of the effectiveness of our "disclosure controls and procedures" (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) was carried out by our management, with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO). Effective controls are required to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission (the "Commission") rules and forms and (ii) accumulated and communicated to the management of the registrant, including the CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure. Based upon our evaluation, because of the material weakness in internal controls over financial reporting described below, the CEO and CFO have concluded that as of the end of that fiscal year, our disclosure controls and procedures were not effective.

It should also be noted that the CEO and CFO do not expect that our disclosure controls and procedures or internal control over financial reporting will prevent all errors and fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over our financial reporting, as such term is defined in Rule 13a-15(f) of the Securities Exchange Act of 1934. Internal control over financial reporting is defined as process designed by, or under the supervision of, the CEO and CFO, and effected by the issuer's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that: (1) pertain to the maintenance of records that in reasonable detail accurately reflect the transactions and dispositions of the assets of the issuer, (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the issuer are being made only in accordance with authorizations of management and directors of the issuer, and (3) provide reasonable assurance regarding preventions or timely detection of unauthorized acquisition, use or disposition of the issuer's assets that could have a material effect on the financial statements.

Management has assessed the effectiveness of our internal control over financial reporting as at December 31, 2016. In making its assessment, management used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework in Internal Control – Integrated Framework (2013) to evaluate the effectiveness of our internal control over financial reporting. Based on this assessment, management has concluded that our internal control over financial reporting was not effective as of December 31, 2016 because of the material weakness described below.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is reasonable possibility that a material misstatement of our annual or interim financial statement will not be prevented or detected on a timely basis.

As a result of the year-end assessment process, a material weakness was identified in internal control over management's review of the annual impairment evaluation of intangible assets and goodwill; specifically the judgments made with respect to the estimated discount rate and the mathematical accuracy of the impairment calculation. An area of significant judgment in our impairment analysis involved assessing the implications of a sustained discrepancy between our market capitalization and carrying values on the cost of capital and discount rate to be used in the impairment analysis. Management performed significant analysis, including engaging an external valuations expert, and as a result identified a range of discount rates that was supported by external data to form its final estimate. However, management's review did not detect that the discount rate used in the impairment analysis did not adequately give effect to this discrepancy nor did it detect a mathematical error in the goodwill impairment calculation. This matter resulted in a material net post-closing adjustment to the December 31, 2016 financial statements to correct the understatement of impairment expense, overstatement of goodwill and intangible assets and related disclosures that was not identified by management on a timely basis. In connection with the selection of an appropriate discount rate, our internal controls were not operating effectively to identify and address on a timely basis a potential bias for exercising judgment specifically with respect to the discount rate used in the Company's annual impairment evaluation of intangible assets and goodwill that could have resulted in a material misstatement. In connection with the mathematical accuracy of the impairment calculation, our internal controls were not operating effectively to identify an error in the spreadsheet used to calculate the goodwill impairment. We note that the net adjustment was ultimately recorded in the December 31, 2016 financial statements as presented herein and no misstatement of prior period published financial statements resulted from the control weakness identified.

Remediation Plan for Material Weakness in Internal Control Over Financial Reporting

Management is committed to remediating the identified material weakness in a timely manner, with appropriate oversight from our Audit Committee. Our planned remediation includes establishing a more comprehensive schedule for management review and control over critical inputs to the intangible asset impairment valuation model, particularly those inputs that are subject to significant levels of judgment, and establishing additional review procedures over the schedules that calculate goodwill impairment.

Attestation Report of the Registered Public Accounting Firm

The independent registered public accounting firm's report, which expressed an adverse opinion on the effectiveness of our internal control over financial reporting, is included in Item 8 of this annual report on Form 10-K and is incorporated herein by reference.

Changes in Internal Control over Financial Reporting

There have not been any changes in our internal control over financial reporting during the Company's fiscal quarter ended December 31, 2016 that have materially affected or are reasonably likely to materially affect the Company's internal control over financial reporting, other than the identification of the material weakness described above.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item is incorporated herein by reference to the information contained under the sections captioned “Proposal One — Election of Directors,” “Section 16(a) Beneficial Ownership Reporting Compliance,” Code of Business Conduct for Directors Officers and Employees," and “Corporate Governance” of the Proxy Statement. The information required by this item relating to executive officers is included in Part I, Item 1, “— Business-Executive Officers of the Registrant,” of this annual report on Form 10-K.

Item 11. Executive Compensation

The information required by this item is incorporated herein by reference to the information contained under the sections captioned “Executive Compensation,” "Director Compensation," and “Compensation Committee Report” of the Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is incorporated herein by reference to the information contained under the sections captioned “Security Ownership of Certain Beneficial Owners and Management,” and “Securities Authorized for Issuance Under Equity Compensation Plans” of the Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated herein by reference to the information contained under the sections captioned “Corporate Governance,” and “Certain Relationships and Related Transactions” of the Proxy Statement.

Item 14. Principal Accounting Fees and Services

The information required by this item is incorporated herein by reference to the information contained under the section captioned "Independent Auditor" of the Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules

Financial Statements

See Index to Consolidated Financial Statements under Item 8 of Part II.

Financial Statement Schedules

None

Item 16.Form 10-K Summary

None

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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 on March 21, 2017.

ARBUTUS BIOPHARMA CORPORATION

By: /s/ Mark Murray
Mark Murray
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated on March 21, 2017.

Signatures	Capacity in Which Signed
/s/ Vivek Ramaswamy Vivek Ramaswamy	Director (Chairman)
/s/ Mark Murray Mark Murray	President and Chief Executive Officer and Director (Principal Executive Officer)
/s/ Bruce Cousins Bruce Cousins	Executive Vice President, Finance and Chief Financial Officer (Principal Financial Officer and Accounting Officer)
/s/ Herbert J. Conrad Herbert J. Conrad	Director
/s/ Richard C. Henriques Richard C. Henriques	Director
/s/ Frank Karbe Frank Karbe	Director
/s/ Keith Manchester Keith Manchester	Director
/s/ William T. Symonds William T. Symonds	Chief Development Officer and Director

Exhibit Number	Description
2.1*	Agreement and Plan of Merger and Reorganization, dated January 11, 2015, by and among Tekmira Pharmaceuticals Corporation, TKM Acquisition Corporation and OnCore Biopharma, Inc. (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
3.1*	Notice of Articles and Articles of the Company (incorporated herein by reference to Exhibit 1.1 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
3.2*	Amendment to the Articles of the Company dated May 14, 2013 (incorporated herein by reference to Exhibit 3.2 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
3.3*	Governance Amendment to the Articles of the Company dated March 4, 2015, (incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on March 4, 2015).
3.4*	Approval of Quorum Policy of the Company, adopted January 31, 2015 (incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on February 5, 2015).
4.1*	Governance Agreement between the Company and Roivant Sciences Ltd., a Bermuda exempted company, dated January 11, 2015 (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.1†*	Amendment No. 1 to the Amended and Restated Agreement, between the Company (formerly Inex Pharmaceuticals Corporation) and Hana Biosciences, Inc., effective as of May 27, 2009 (incorporated herein by reference to Exhibit 4.1 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.2†*	Amended and Restated License Agreement, between Inex Pharmaceuticals Corporation and Hana Biosciences, Inc., dated April 30, 2007 (incorporated herein by reference to Exhibit 4.2 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.3†*	Sublicense Agreement, between Inex Pharmaceuticals Corporation and Alnylam Pharmaceuticals, Inc., dated January 8, 2007 (incorporated herein by reference to Exhibit 4.3 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.4†*	Settlement Agreement, between Sirna Therapeutics, Inc. and Merck & Co., Inc. and Protiva Biotherapeutics Inc. and Protiva Biotherapeutics (USA), Inc., effective as of October 9, 2007 (incorporated herein by reference to Exhibit 4.7 to the Registrant's Amendment No. 1 to Form 20-F for the year ended December 31, 2010 filed with the SEC on January 31, 2012).
10.5*#	Executive Employment Agreement with Mark Murray, dated May 30, 2008 (incorporated herein by reference to Exhibit 4.11 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.6*#	Executive Employment Agreement with Peter Lutwyche, dated January 1, 2009 (incorporated herein by reference to Exhibit 4.12 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.7*#	Share Option Plan amended through May 12, 2009 (including form stock option agreements) (incorporated herein by reference to Exhibit 4.13 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.8*	Lease Agreement with Canada Lands Company CLC Limited dated December 15, 1997, as amended (incorporated herein by reference to Exhibit 4.14 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.9*#	Form of Indemnity Agreement (incorporated herein by reference to Exhibit 4.15 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.10†*	License Agreement between the University of British Columbia and Inex Pharmaceuticals Corporation executed on July 30, 2001 (incorporated herein by reference to Exhibit 4.17 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.11†*	Amendment Agreement between the University of British Columbia and Inex Pharmaceuticals Corporation dated July 11, 2006 (incorporated herein by reference to Exhibit 4.18 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).

10.12†*	Second Amendment Agreement between the University of British Columbia and Inex Pharmaceuticals Corporation dated January 8, 2007 (incorporated herein by reference to Exhibit 4.19 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.13†*	Consent Agreement of the University of British Columbia to Inex/Alnylam Sublicense Agreement dated January 8, 2007 (incorporated herein by reference to Exhibit 4.20 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.14†*	Amendment No. 2 to the Amended and Restated Agreement, between the Company (formerly Inex Pharmaceuticals Corporation) and Hana Biosciences, Inc., effective as of September 20, 2010 (incorporated herein by reference to Exhibit 4.21 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2010 filed with the SEC on June 3, 2011).
10.15*#	Tekmira 2011 Omnibus Share Compensation Plan approved by shareholders on June 22, 2011 (incorporated herein by reference to Exhibit 4.25 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2011 filed with the SEC on March 27, 2012).
10.16†*	Settlement Agreement and General Release, by and among Tekmira Pharmaceuticals Corporation, Protiva Biotherapeutics Inc., Alnylam Pharmaceuticals, Inc., and AlCana Technologies, Inc., dated November 12, 2012 (incorporated herein by reference to Exhibit 4.26 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012 filed with the SEC on March 27, 2013).
10.17†*	Cross-License Agreement by and among Alnylam Pharmaceuticals, Inc., Tekmira Pharmaceuticals Corporation and Protiva Biotherapeutics Inc., dated November 12, 2012 (incorporated herein by reference to Exhibit 4.27 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012 filed with the SEC on March 27, 2013).
10.18†*	License Agreement by and among Protiva Biotherapeutics Inc. and Marina Biotech, Inc. dated November 28, 2012 (incorporated herein by reference to Exhibit 4.28 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012 filed with the SEC on March 27, 2013).
10.19*#	Employment Agreement with Bruce Cousins dated October 7, 2013 (incorporated herein by reference to Exhibit 10.31 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.20†*	Services Agreement by and among Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Company dated January 12, 2014 (incorporated herein by reference to Exhibit 10.32 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.21†*	Option Agreement by and among Tekmira Pharmaceuticals Corporation, Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Canada Inc. dated January 12, 2014 (incorporated herein by reference to Exhibit 10.33 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.22†*	License and Services Agreement by and among Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Tekmira Pharmaceuticals Corporation dated January 12, 2014 (incorporated herein by reference to Exhibit 10.34 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013 filed with the SEC on March 28, 2014).
10.23*	Forms of Lock-Up Agreement (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.24*	Form of Registration Rights Agreement (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.25*	Form of Standstill Agreement (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.26*	Form of Representation Letter (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015).
10.27*#	Executive Employment Agreement, dated as of August 4, 2015, between Arbutus Biopharma Corporation and Michael Abrams. (incorporated herein by reference to Exhibit 10.12 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).
10.28*#	Executive Employment Agreement, dated as of August 4, 2015, between Arbutus Biopharma Corporation and Mark Kowalski. (incorporated herein by reference to Exhibit 10.13 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).

10.29*†	License Agreement, between Tekmira Pharmaceuticals and Protiva Biotherapeutics and Dicerna Pharmaceuticals dated November 16, 2014 (incorporated herein by reference to Exhibit 10.41 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 13, 2015).
10.30*†	Manufacturing and Clinical Trial Agreement between Tekmira Pharmaceuticals and Protiva Biotherapeutics and the Chancellor Masters and Scholars of the University of Oxford, dated December 18, 2014 (incorporated herein by reference to Exhibit 10.42 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 13, 2015).
10.31*	Underwriting Agreement for 3,750,000 Common Shares with Stifel, Nicolaus & Company, dated October 17, 2013 (incorporated herein by reference to Exhibit 10.76 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 13, 2015).
10.32*	Underwriting Agreement for 2,125,000 Common Shares with Leerink Partners LLC, dated March 14, 2014 (incorporated herein by reference to Exhibit 10.77 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on March 13, 2015).
10.33*#	Executive Employment Agreement Elizabeth Howard, dated March 7, 2016 (incorporated herein by reference to Exhibit 10.78 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on March 9, 2016).
10.34*†	Amended and Restated Option Agreement by and among Arbutus Biopharma Corporation, Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Canada Inc., dated March 4, 2016 (incorporated herein by reference to Exhibit 10.79 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on March 9, 2016)
10.35*†	Amended and Restated License and Services Agreement by and among Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Arbutus Biopharma Corporation, dated March 4, 2016 (incorporated herein by reference to Exhibit 10.80 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on March 9, 2016).
10.36*	First Amendment to the Protiva-Monsanto Services Agreement by and among Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Company, dated March 4, 2016 (incorporated herein by reference to Exhibit 10.81 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on March 9, 2016).
10.37*	Letter Agreement between OnCore Biopharma, Inc. and Cytos Biotechnology AG, effective July 16, 2015 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, filed with the SEC on November 5, 2015).
10.38*	License Agreement between OnCore Biopharma, Inc. and Cytos Biotechnology Ltd. dated December 30, 2014 (incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, filed with the SEC on November 5, 2015).
10.39*#	Amending Agreement, dated as of November 2, 2015, among Arbutus Biopharma Corporation, Roivant Sciences Ltd., Patrick T. Higgins, Michael J. McElhaugh, Michael J. Sofia and Bryce A. Roberts (incorporated herein by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, filed with the SEC on November 5, 2015).
10.40*	Amendment No. 1 to the Option Agreement by and among Tekmira Pharmaceuticals Corporation, Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Canada Inc. dated January 12, 2014 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, filed with the SEC on August 14, 2014).
10.41*	Renewal and Modification of Lease Agreement with Canada Lands Company CLC Limited dated December 15, 1997, as amended (incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014, filed with the SEC on August 14, 2014).
10.42*	Amendment No. 2 to the Option Agreement by and among Tekmira Pharmaceuticals Corporation, Protiva Biotherapeutics Inc., Protiva Agricultural Development Company Inc. and Monsanto Canada Inc. dated January 12, 2014 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, filed with the SEC on November 7, 2014).
10.43*	License Agreement by and between NeuroVive Pharmaceutical AB and OnCore Biopharma, Inc., dated as of September 8, 2014 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 6, 2015).

10.44*	Research Collaboration and Funding Agreement by and between Baruch S. Blumberg Institute and OnCore Biopharma, Inc., dated as of October 29, 2014 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 6, 2015).
10.45*	Stock Purchase Agreement by and among OnCore Biopharma, Inc. and each of the stockholders of Enantigen Therapeutics, Inc., dated as of October 1, 2014 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 6, 2015).
10.46*	Third Amendment to Option Agreement by and among Monsanto Canada, Inc., Tekmira Pharmaceuticals Corporation, Protiva Biotherapeutics, Inc. and Protiva Agricultural Development Company Inc., dated as of May 22, 2105 (incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).
10.47*#	Share Repurchase Agreement, dated effective as of July 11, 2015, between Tekmira Pharmaceuticals Corporation and Patrick T. Higgins (incorporated herein by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).
10.48*#	Executive Employment Agreement, dated effective as of July 11, 2015, between OnCore Biopharma, Inc. and Michael J. Sofia (incorporated herein by reference to Exhibit 10.8 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).
10.49*	Share Repurchase Agreement, dated effective as of July 11, 2015, between Tekmira Pharmaceuticals Corporation and Michael J. Sofia (incorporated herein by reference to Exhibit 10.9 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).
10.50*#	Agreement to Serve as Chief Development Officer, dated as of May 29, 2015, between Tekmira Pharmaceuticals Corporation and William T. Symonds (incorporated herein by reference to Exhibit 10.10 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).
10.51*#	Executive Employment Agreement, dated as of August 4, 2015, between Arbutus Biopharma Corporation and Bruce Cousins (incorporated herein by reference to Exhibit 10.11 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).
10.52*#	Executive Employment Agreement, dated as of August 4, 2015, between Arbutus Biopharma Corporation and Peter Lutwyche (incorporated herein by reference to Exhibit 10.14 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed with the SEC on August 7, 2015).
10.53*#	Separation of Executive Employment Agreement and Share Repurchase Agreement between Arbutus Biopharma, Inc., Arbutus Biopharma Corporation and Patrick T. Higgins, dated April 20, 2016 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, filed with the SEC on May 4, 2016).
10.54*	Amended 2011 Omnibus Share Compensation Plan (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the SEC on August 4, 2016).
10.55*	2016 Omnibus Share and Incentive Plan (incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the SEC on August 4, 2016).
10.56*	Amended and Restated Research Collaboration and Funding Agreement, between Arbutus Biopharma Inc. and the Baruch S. Blumberg Institute, dated June 6, 2016 (incorporated herein by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, filed with the SEC on August 4, 2016).
10.57*†	Lease Agreement between Arbutus Biopharma, Inc. and ARE-PA Region No. 7, LLC dated August 9, 2016 (incorporated herein by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed with the SEC on November 3, 2016).
10.58*	First Amendment to Lease Agreement between Arbutus Biopharma, Inc. and ARE-PA Region No. 7, LLC dated October 7, 2016 (incorporated herein by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed with the SEC on November 3, 2016).
10.59*	Acknowledgment of Commencement Date in connection with Lease Agreement between Arbutus Biopharma, Inc. and ARE-PA Region No. 7, LLC dated August 9, 2016 and as amended on October, 7, 2016 (incorporated herein by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed with the SEC on November 3, 2016).

10.60*#	Termination and Severance Agreement between Arbutus Biopharma Corporation and Mark Kowalski, dated September 30, 2016 (incorporated herein by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed with the SEC on November 3, 2016).
10.61*#	Termination and Severance Agreement between Arbutus Biopharma Corporation and Michael Abrams, dated September 30, 2016 (incorporated herein by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed with the SEC on November 3, 2016).
10.62**	Notice of Contract Termination from the U.S. Department of Defense for the TKM-Ebola Contract, dated October 1, 2015.
10.63**	Settlement Agreement and Release between Arbutus Biopharma Corporation and NeuroVive Pharmaceutical AB., dated October 19, 2016.
10.64**	Notice of Termination of License Agreement between Arbutus Biopharma Corporation and Dicerna Pharmaceuticals Inc., dated November 20, 2016.
10.65**	Notice of Termination of License Agreement between Arbutus Biopharma Corporation and Cytos Biotechnology Ltd. dated August 25, 2016.
10.66**#	Executive Employment Agreement Transfer, dated as of November 17, 2016, between Arbutus Biopharma Inc. and William T. Symonds.
10.67††	License Agreement between Arbutus Biopharma Corporation and Alexion Pharma Holding dated March 15, 2017.
21.1**	List of Subsidiaries
23.1**	Consent of KPMG LLP, an Independent Registered Public Accounting Firm
31.1**	Certification of Chief Executive Officer pursuant to Rule 13a-14 or 15d-14 of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2**	Certification of Chief Financial Officer pursuant to Rule 13a-14 or 15d-14 of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS**	XBRL Instance Document
101.SCH**	XBRL Taxonomy Extension Schema Document
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document

*	Previously filed
**	Filed herewith
†	Confidential treatment granted as to portions of this exhibit.
††	Confidential treatment has been requested as to portions of this exhibit.
#	Management Contract

Exhibit 10.62

REPLY TO ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY CONTRACTING COMMAND - ABERDEEN PROVING GROUND
NATICK CONTRACTING DIVISION
1 KANSAS STREET
NATICK, MA 01760-5011

October 1, 2015

Chemical and Biological Operations Branch

Subject: Notice of Partial Termination for Convenience of the Government, Contract No. W9113M-10-C-0057

Arbutus Biopharma Corp.
ATTN: Mr. Peter Lutwyche, Sr., VP 8900 Glenlyon PKY Suite 100 Burnaby V5J 5J8

Dear Mr. Lutwyche:

(a) *Effective date of termination.* You are notified that Contract No. W9113M-10-C-0057 (referred to as "the contract") is terminated in part (CLINs 0002 and 0008) for the Government's convenience under the clause entitled 52.249-6 Termination (Cost-Reimbursement). The termination is effective immediately upon receipt of this Notice.

(b) *Cessation of work and notification to immediate subcontractors.* You shall take the following steps:

(1) Stop all work, make no further shipments, and place no further orders relating to the contract, except for--

(i) The continued portion of the contract, if any; specifically limited to CLIN 0001 and Property Audit related efforts for CLIN 0008.

(ii) Work-in-process or other materials that you may wish to retain for your own account; or

(iii) Work-in-process that the Contracting Officer authorizes you to continue

(A) for safety precautions,

(B) to clear or avoid damage to equipment,

(C) to avoid immediate complete spoilage of work-in-process having a definite commercial value, or

(D) to prevent any other undue loss to the Government. (If you believe this authorization is necessary or advisable, immediately notify the Contracting Officer by telephone or personal conference and obtain instructions.)

(2) Keep adequate records of your compliance with subparagraph (b)(1) of this section showing the--

(i) Date you received the Notice of Termination;

(ii) Effective date of the termination; and

(iii) Extent of completion of performance on the effective date.

(3) Furnish notice of termination to each immediate subcontractor and supplier that will be affected by this termination. In the notice--

(i) Specify your Government contract number;

(ii) State whether the contract has been terminated completely or partially;

(iii) Provide instructions to stop all work, make no further shipments, place no further orders, and terminate all subcontracts under the contract, subject to the exceptions in subparagraph (b)(1) of this section;

(iv) Provide instructions to submit any settlement proposal promptly; and

(v) Request that similar notices and instructions be given to its immediate subcontractors.

(4) Notify the Contracting Officer of all pending legal proceedings that are based on subcontracts or purchase orders under the contract, or in which a lien has been or may be placed against termination inventory to be reported to the Government. Also, promptly notify the Contracting Officer of any such proceedings that are filed after receipt of this Notice.

(5) Take any other action required by the Contracting Officer or under the Termination clause in the contract.

(c) *Termination inventory.*

(1) The Contractor shall submit complete termination inventory schedules to the Contracting Officer no later than 120 days from the effective date of termination, unless

extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period. As instructed by the Contracting Officer, transfer title and deliver to the Government all termination inventory of the following types or classes, including subcontractor termination inventory that you have the right to take: To be determined upon final property audit.

(2) To settle your proposal, it will be necessary to establish that all prime and subcontractor termination inventory has been properly accounted for. For detailed information, see FAR Part 45.

(d) *Settlements with subcontractors.* You remain liable to your subcontractors and suppliers for proposals arising because of the termination of their subcontracts or orders. You are requested to settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts, the cost of which would be reimbursable in whole or in part, under this contract. Final approval of reimbursable settlement costs is subject to final approval of the contracting officer. For purposes of reimbursement by the Government, settlements will be governed by the provisions of FAR Part 49.

(e) *Completed end items.*

To be determined, if any.

(f) *Patents.* If required by the contract, promptly forward the following to the Contracting Officer:

(1) Disclosure of all inventions, discoveries, and patent applications made in the performance of the contract.

(2) Instruments of license or assignment on all inventions, discoveries, and patent applications made in the performance of the contract.

(g) *Employees affected.*

(1) If this termination, together with other outstanding terminations, will necessitate a significant reduction in your work force, you are urged to--

(i) Promptly inform the local State Employment Service of your reduction-in- force schedule in numbers and occupations, so that the Service can take timely action in assisting displaced workers;

(ii) Give affected employees maximum practical advance notice of the employment reduction and inform them of the facilities and services available to them through the local State Employment Service offices;

(iii) Advise affected employees to file applications with the State Employment Service to qualify for unemployment insurance, if necessary;

(iv) Inform officials of local unions having agreements with you of the impending reduction-in-force; and

(v) Inform the local Chamber of Commerce and other appropriate organizations which are prepared to offer practical assistance in finding employment for displaced workers of the impending reduction-in-force.

(2) If practicable, urge subcontractors to take similar actions to those described in subparagraph (1) of this section.

(h) *Administrative.* The contract administration office named in the contract modification attached to this notice will identify the Contracting Officer who will be in charge of the settlement of this termination and who will, upon request, provide the necessary settlement forms for submission of your termination settlement proposal to be submitted in accordance with FAR clause 52.249-6 Termination (Cost-Reimbursement). To achieve settlement expediently, the Government requests that a proposal be submitted within 180 days from the date of this letter, but in any event no later than one year.

Matters not covered by this notice should be brought to the attention of the undersigned.

(i) Please acknowledge receipt of this notice as provided below.

Sincerely,

Sandra J. O'Connell Contracting Officer

CC: Mr. Adekunle Famodu, JPM BDTx (Assistant Product Manager), Mr. Paul Slemons, DCMA Terminations Group

Acknowledgment of Notice

The undersigned acknowledges receipt of a signed copy of this notice on October 2, 2015. One signed copy of this notice is returned.

Arbutus Biopharma Corp.

By /s/ Peter Lutwyche
(Name)

Chief Technology Officer
(Title)

Exhibit 10.63

DATED

19 October 2016

SETTLEMENT AGREEMENT AND RELEASE

between

NEUROVIVE PHARMACEUTICAL AB

AND

ARBUTUS BIOPHARMA CORPORATION

CONTENTS

CLAUSE

THIS SETTLEMENT AGREEMENT is dated October 2016

PARTIES

(1) **NEUROVIVE PHARMACEUTICAL AB**, a company organized under the laws of Sweden, with an office in Medicon Village Scheelevägen 2, 223 81 Lund, Sweden (**"NeuroVive"**); and

(2) **ARBUTUS BIOPHARMA CORPORATION**, a company organized under the laws of British Columbia, Canada with an office at 100 - 8900 Glenlyon Parkway Burnaby, British Columbia Canada V5J 5J8 and its Affiliates (collectively **"Arbutus"**).

Together the **"Parties"**

BACKGROUND

A dispute has arisen between the Parties concerning a License Agreement entered into by and between Neurovive and Arbutus' predecessor-in-interest Oncor Biopharma, Inc., dated September 8, 2014 (the "**License Agreement**"). For the avoidance of doubt, the Parties acknowledge that the License Agreement remained in force between the NeuroVive and Arbutus after 2015, and continued to bind NeuroVive and Arbutus prior to the dispute as set forth below.

The issues in dispute between the Parties have been set out in correspondence, meetings and telephone conversations between the Parties. Specifically, the issues in dispute are:

(1) Arbutus' predecessor-in-interest OnCore Biopharma Inc's merger with a subsidiary of Arbutus on or about 4 March 2015 and subsequent public offering of shares with respect to the remuneration provision of Article 7.2 of the License Agreement;

(2) the purported termination of the License Agreement by Arbutus on 27 June 2016; and

(3) the costs which have arisen in respect of patent applications required for the Licensed Product which is the subject of the License Agreement.

Together the **"Dispute"**.

The Parties have settled their differences and have agreed terms for the full and final settlement of the Dispute and wish to record those terms of settlement, on a binding basis, in this Settlement Agreement (the **"Settlement Agreement**").

AGREED TERMS

1. DEFINITIONS AND INTERPRETATION

Save as specified below, terms used in this Settlement Agreement have the same meaning as those defined in the License Agreement.

Affiliates: means with respect to any Person, any Person directly or indirectly controlled by, controlling or under common control with such Person. For the purposes of this definition, "control" shall mean direct or indirect beneficial ownership of 50% or greater interest in the voting power of such Person or such other relationship as in fact constitutes actual control.

2. CONSIDERATION

2.1 In consideration of the Parties entering into this Settlement Agreement:

2.1.1 The Licence Agreement will terminate on the date of this Settlement Agreement and shall be of no further effect and the terms set out at paragraph 3 of this Settlement Agreement shall apply; and

2.1.2 Ownership of all the remaining produced batches of the material, as well as raw material, specified at Schedule 1 will transfer to NeuroVive (the **"Material"**) and Arbutus will provide such Material to NeuroVive in accordance with Schedule 1 within 21 days of the date of this Settlement Agreement. For the avoidance of doubt, no payment will be

made by NeuroVive to Arbutus for the Material. The Material in Schedule 1 that is to be sent to NeuroVive shall be sent to Isomerase Technology Ltd, Science Village, Chesterford Research Park, Cambridge, CB10 1XL, United Kingdom (Contact – Steven Moss) by UPS or Fedex. Arbutus will make all arrangements for, and be responsible for, delivery to NeuroVive. If any difficulty in transport and delivery arises, Arbutus is to take the necessary steps to resolve those difficulties and Arbutus will keep NeuroVive fully and immediately informed. Arbutus will arrange an insurance for the delivery. The costs of insuring and delivering the Material to NeuroVive will be met by NeuroVive.

2.2 The Parties hereby confirm and acknowledge the consideration above as adequate.

3. LICENSE

3.1 Arbutus hereby grants to NeuroVive an exclusive worldwide license in the Field, with the right to sublicense, and agrees to promptly transfer to NeuroVive, or its Affiliates as requested by NeuroVive, and NeuroVive shall assume and thereafter be fully responsible and liable for all of Arbutus' right, title and interest in and to all Licensed Products in its inventory and all unused samples of the Licensed Product and all API then in possession or control of Arbutus. Any physical delivery required is to be effected in accordance with the provisions of clause 2.1.

3.2 NeuroVive may elect to have any agreements to which Arbutus is a party providing solely for Development, Commercialization or Manufacturing services for the Licensed Product(s) anywhere in the world, such as contract research organization contracts and contract manufacturing organization contracts, assigned to NeuroVive to the extent permitted by such agreements and not cancelled, and thereafter NeuroVive shall indemnify and hold harmless Arbutus from any liabilities arising under such agreements from and after the applicable date of assignment and assumption, except to the extent caused by Arbutus' actions.

4. RELEASE

4.1 This Settlement Agreement is in full and final settlement of, and each party hereby releases and forever discharges, all and/or any actions, claims, rights, demands and set-offs arising before the date of this Settlement Agreement, whether in this jurisdiction or any other, whether or not presently known to the parties or to the law, and whether in law or equity, that it, its Affiliates or any of them ever had, may have or hereafter can, shall or may have against the other party or any of its Affiliates including, but not limited to, those relating to:

(a) the License Agreement;

(b) the Dispute;

(c) any other matter arising out of or connected with the relationship between the Parties.

(Collectively the **"Released Claims"**)

5. AGREEMENT NOT TO SUE

5.1 Each party agrees, on behalf of itself and on behalf of its Affiliates not to sue, commence, prosecute or cause to be commenced or prosecuted against the other party or its Affiliates any action, suit or other proceeding concerning the Released Claims, in this jurisdiction or any other by either of the Parties, Affiliates, or any other third parties.

5.2 For the avoidance of doubt, clauses 3 and 5.1 do not apply to any claim arising out of or in connection with the obligations of the Parties contained in this Settlement Agreement.

6. CO-OPERATION

6.1 The Parties shall deliver or cause to be delivered such instruments and other documents at such times and places as are reasonably necessary or desirable, and shall take any other action reasonably requested by the other Party for the purpose of putting this Settlement Agreement into effect and/or in defending or pursuing any action necessary in respect of the Materials and/or the Licence Agreement.

7. COSTS

7.1 The Parties shall each bear their own legal costs in relation to the Dispute and this Settlement Agreement.

8. WARRANTIES AND AUTHORITY

8.1 Each party warrants and represents that it has not sold, transferred, assigned or otherwise disposed of its interest in the Released Claims.

8.2 Each party warrants and represents to the other with respect to itself (and, for the avoidance of doubt, in the case of Arbutus Biopharma Corporation, its Affiliates) that it has the full right, power and authority to execute, deliver and perform this Settlement Agreement.

9. NO ADMISSION

9.1 This Settlement Agreement is entered into in connection with the compromise of the Dispute and the Released Claims. It is not, and shall not be represented or construed

by the Parties as, an admission of liability or wrongdoing on the part of either party to this Settlement Agreement or any other person or entity.

10. SEVERABILITY

10.1 If any provision of this Settlement Agreement is found to be void or unenforceable, that provision shall be deemed to be deleted from this Settlement Agreement and the remaining provisions of this Settlement Agreement shall continue in full force and effect and the Parties shall use their respective reasonable endeavours to procure that any such provision is replaced by a provision which is valid and enforceable, and which gives effect to the spirit and intent of this Settlement Agreement.

11. ENTIRE AGREEMENT

11.1 This Settlement Agreement constitutes the entire understanding and agreement between the Parties in relation to the subject matter of this Settlement Agreement.

11.2 Each party acknowledges that it has not entered into this Settlement Agreement in reliance wholly or partly on any representation or warranty made by or on behalf of the other party (whether orally or in writing) other than as expressly set out in this Settlement Agreement .

12. GOVERNING LAW AND JURISDICTION

12.1 This Settlement Agreement shall be governed by, and construed in accordance with, the law of England and Wales. Any dispute arising out of or in connection with, or concerning the carrying into effect of, this Settlement Agreement shall be subject to the exclusive jurisdiction of the courts of England and Wales, and the Parties hereby submit to the exclusive jurisdiction of those courts for these purposes.

12.2 The Parties hereby (a) consent to service of process in any action between the Parties arising in whole or in part under or in connection with this Settlement Agreement in any manner permitted by the laws of England and Wales, (b) agreed that service of process made in accordance with clause (a) or made by registered post at its address specified below shall constitute good and valid service of process in any such action and (c) waives and agrees not to assert (by way of a claim, as a defence or otherwise) in any such action any claim that service of process made in accordance with clause (a) or (b) does not constitute good and valid service of process:

If to NeuroVive: CEO
NeuroVive Pharmaceutical AB
Medicon Village
Scheelevagen
223 81 Lund
Sweden

With a copy (which shall not constitute notice) to: CEO

NeuroVive Pharmaceutical AB
Karolinska Institutet Science Park
Fogdevreten 2
SE-171 65 Solna
Sweden

If to Arbutus: CEO

Arbutus Biopharma Corporation
100 - 8900 Glenlyon Parkway Burnaby
British Columbia, Canada V5J 5J8

13. COUNTERPARTS

13.1 This Settlement Agreement may be signed in any number of counterparts, each of which, when signed, shall be an original and all of which together evidence the same agreement. For the purposes of completion, faxed or emailed signatures by the Parties shall be binding.

14. VARIATION

14.1 Any variation of this Settlement Agreement must be in writing and signed by or on behalf of each party.

This Settlement Agreement has been entered into on the date stated at the beginning of it.

Signed by
for and on behalf of NEUROVIVE PHARMACEUTICAL AB

/s/ Erik Kinnman
.....
Erik Kinnman, CEO

Signed by
for and on behalf of ARBUTUS BIOPHARMA CORPORATION and its Affiliates

/s/ Mark J. Murray
.....
Mark J. Murray, President and CEO

SCHEDULE 1

Material	Lot#	Current location	Ship to	Preferred Courier
NV556 API	13-147MMV944-94-1-2	ChemConnection	Isomerase	UPS or Fedex
	13-147FV1115-31-6	ChemConnection	Isomerase	UPS or Fedex
	13-147D1501/RE0180A&B	ChemConnection	Isomerase	UPS or Fedex
	RE0180A	ChemConnection	Isomerase	UPS or Fedex
	RE0180B	ChemConnection	Isomerase	UPS or Fedex
	ARB-000030-5	Arbutus	Isomerase	UPS or Fedex
	ARB-000030-6	Arbutus	Isomerase	UPS or Fedex
	ARB-000030-8	Arbutus	Isomerase	UPS or Fedex
	ARB-000030-9	Arbutus	Isomerase	UPS or Fedex
	FV1115-67-3	Alcami	Isomerase	UPS or Fedex
	FV1115-70-3	Alcami	Isomerase	UPS or Fedex
	JBO211 (C t/m F)	Alcami	Isomerase	UPS or Fedex
FS55 - NV457	20150718	Alcami	Remain at Alcami	
	20150730	Alcami	Remain at Alcami	
	20150816	Alcami	Remain at Alcami	
	20150822	Alcami	Remain at Alcami	
	20150915	Alcami	Remain at Alcami	
FS55 - NV496	20150718	Alcami	Remain at Alcami	
	20150731	Alcami	Remain at Alcami	
	20150916	Alcami	Remain at Alcami	
Resin-bound FS55	2015-10B	Enzyme Works	NVP to instruct Enzyme Works on use	
FS45 chiral amino acid	CQS20150605	Chiral Quest	Remain at ChiralQuest	
FS-51 oxazinane	RI-FS51	Alcami	Remain at Alcami	

any un-used raw material or reagent related to the manufacture of NV556 or the fermentation derived precursor NV457		Concord Biotech or Alcami	Remain at Concord Biotech or Alcami respectively	

Isomerase Technology Ltd (‘Isomerase’)
Science Village
Chesterford Research Park
Cambridge
CB10 1XL
United Kingdom
Contact – Steven Moss

Alcami Corp. (‘Alcami’)
Vliesvenweg 1
6002NM Weert, Netherlands
Contact - Bernd Vergouwen

Enzyme Works, Inc. (‘Enzyme Works’)
603 Gangcheng Road,
Zhangjiagang,
Jiangsu,
China 215600
Contact - Lily Gao

Chiral Quest (Suzhou) Co.,Ltd. (‘ChiralQuest’)
9th Floor, B1 Biobay,
Suzhou Industrial Park,
Jiangsu,
China, 215123
Contact – Ian Lennon

Concord Biotech Ltd (‘Concord Biotech’)
1482 - 1486, Trasad Road,
Dholka - 382225
Ahmedabad
Gujarat
India
Contact – Devang Bhatt

Exhibit 10.64

November 20, 2016

Douglas M. Fambrough, III Ph.D.

Chief Executive Officer

Dicerna Pharmaceuticals Inc.

87 Cambridgepark Drive

Cambridge, MA 02140

Dear Doug,

I am writing you regarding the License Agreement by and between Dicerna Pharmaceuticals, Inc. ("Dicerna"), on the one hand, and Protiva Biotherapeutics Inc. and Tekmira Pharmaceuticals Corporation (predecessor in interest of Arbutus Biopharma Corporation or "Arbutus") on the other hand, dated November 16, 2014 ("Agreement").

By agreement of the parties, the Agreement is now terminated, effective November 21, 2016. Pursuant to section 8.6 (b) of the Agreement, the Supply Agreement and Quality Agreement between Dicerna and Arbutus also automatically terminates, with the proviso that within thirty (30) days after termination of the Agreement (namely December 20, 2016), Dicerna will provide Arbutus with an inventory of all Products in its, its Affiliates' and their Sublicensees' (including CMO's) possession or control, including finished products and works-in-process.

Yours truly,

/s/ Thomas Frohlich

Exhibit 10.65

August 25, 2016

Didier Cowling
Chief Executive Officer
Kuros Biosciences AG
Wagistrasse 25
8952 Schlieren
Switzerland

Dear Mr. Cowling,

This letter constitutes written notice of termination by Arbutus Biopharma Inc., and its parent company Arbutus Pharma Corp. (collectively "Arbutus") of the License Agreement by and between Cytos Biotechnology Ltd and Oncore Biopharma, Inc. (predecessor in interest of Arbutus), dated December 30, 2014 ("Agreement"), pursuant to § 12.3 (Termination of the Agreement for Convenience) of said Agreement.

Yours truly,

/s/ Elizabeth Howard

Elizabeth Howard

Executive Vice President & General Counsel

Cc: VISCHER AG
Aeschenvorstadt 4
4010 Basel
Switzerland
Attn: Dr. Matthias Staehelin

Exhibit 10.66

3805 Old Easton Road | Doylestown, PA | United States 18902 | Tel: 267.893.6650 | www.arbutusbio.com

November 17, 2016

Personal and Confidential

Bill Symonds
103 Hardenbrook Court Cary, NC
USA, 27519

Dear Bill:

Effective November 15, 2016, your employment with Arbutus Biopharma Corp. (formerly Tekmira Pharmaceuticals Corp.) has been transferred to Arbutus Biopharma, Inc. Except for being employed by Arbutus Biopharma, Inc., all other terms of your employment will remain the same, as set forth in your Agreement to Serve as Chief Development Officer entered into as of May 29, 2015.

Very truly yours,

ARBUTUS BIOPHARMA, INC.

Mark J Murray President & CEO

Exhibit 10.67

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [***]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

LICENSE AGREEMENT

by and between

ALEXION PHARMA HOLDING

on the one hand,

and

ARBUTUS BIOPHARMA CORPORATION

and

PROTIVA BIOTHERAPEUTICS INC.,

on the other hand

Dated as of March 16, 2017

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LICENSE AGREEMENT

This LICENSE AGREEMENT (this "Agreement") is entered into as of March 16, 2017 (the "Effective Date"), by and between Alexion Pharma Holding, an unlimited liability company incorporated under the laws of Ireland having its principal place of business at Canon's Court, 22 Victoria Street, Hamilton HM 12 Bermuda ("Alexion"), on the one hand, and Protiva Biotherapeutics Inc., a British Columbia corporation with a principal place of business at 100-8900 Glenlyon Parkway, Burnaby, B.C., Canada V5J 5J8 ("Protiva"), and Arbutus Biopharma Corporation, a British Columbia corporation with a principal place of business at 100-8900 Glenlyon Parkway, Burnaby, B.C., Canada V5J 5J8 ("ABUS" and together with Protiva, "Arbutus"), on the other hand.

WHEREAS, Arbutus and its Affiliates (as defined below) possess, develop and improve from time to time Licensed Intellectual Property (as defined below);

WHEREAS, Alexion wishes to apply the Licensed Intellectual Property to selected Alexion mRNA technology against the Licensed Target (as defined below); and

WHEREAS, Arbutus desires to grant Alexion licenses to Licensed Intellectual Property to Research, Develop, Manufacture and Commercialize (each as defined below) the Products (as defined below) upon the terms and subject to the conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt of which is hereby acknowledged, Alexion and Arbutus enter into this Agreement effective as of the Effective Date:

ARTICLEI DEFINITIONSARTICLE I - DEFINITIONS

1. General1.1 General

. When used in this Agreement, each of the following terms, whether used in the singular or plural, shall have the meanings set forth in this Article I.

"ABUS" has the meaning set forth in the introductory paragraph.

"Affiliate" means, with respect to a Person, any corporation, company, partnership, joint venture or firm that controls, is controlled by, or is under common control with such Person. For purposes of the foregoing sentence, "control" means (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or shares having the right to vote for the election of directors, or (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest with the power to direct the management and policies of such non-corporate entities.

"Agreement" has the meaning set forth in the introductory paragraph.

"Alexion" has the meaning set forth in the introductory paragraph.

"Alexion Disease Areas" means the treatment or prevention of [***].

"Alexion Indemnitees" has the meaning set forth in Section 8.1.

"Alexion IP" has the meaning set forth in Section 6.1(b).

"Alliance Manager" has the meaning set forth in Section 3.2(f).

"API" means any active ingredient (whether biological or pharmaceutical) or other component thereto (but excluding, for clarity, an adjuvant or excipient).

"Applicable Laws" means all applicable laws, statutes, rules, regulations, guidelines, guidances, ordinances, orders, decrees, writs, judicial or administrative decisions and the like of any nation or government, any state or other political subdivision thereof, any entity exercising executive, judicial, regulatory or administrative functions of or pertaining to government (including any Governmental Authority), any tribunal or arbitrator of competent jurisdiction, and any trade organization whose regulations have the force of law.

"Arbutus" has the meaning set forth in the introductory paragraph.

"Arbutus Improvement IP" has the meaning set forth in Section 6.1(a).

"Arbutus Indemnitees" has the meaning set forth in Section 8.2.

"Arbutus Patents" means the Patents Controlled by Arbutus or any of its Affiliates at any time during the Term that include one or more claims that Cover (i) the composition of matter of LNPs, (ii) the method of use of LNPs that are useful or necessary for the Research, Development, Manufacture or Commercialization of a Product, or otherwise Cover any Product, or (iii) the method of manufacturing LNPs (including or excluding encapsulated drug), including the Patents listed in Exhibit A and any Patents claiming any Arbutus Improvement IP.

"Business Day" means any day that is not a Saturday, a Sunday, or other day which is a statutory holiday in the Province of British Columbia, Canada or a state or federal holiday in the State of New York.

"Calendar Year" means a period of twelve (12) consecutive calendar months ending on December 31.

"CMO" means a contract manufacturing organization.

"Code" has the meaning set forth in Section 2.4.

"Commercialize" or "Commercialization" means, excluding Manufacturing, any and all activities directed to marketing, promoting, distributing, importing, having imported, exporting, having exported, selling and having sold products and services, including, subject to the terms of this Agreement, having Third Parties conduct such activities on behalf of the Person receiving the rights to Commercialize.

"Commercial Milestone Payment" has the meaning set forth in Section 4.3(a).

"Commercial Milestone" has the meaning set forth in Section 4.3(a).

"Commercially Reasonable Efforts" means the efforts and resources that would reasonably be used (including the promptness with which such efforts and resources would be applied) by the applicable Party for the pharmaceutical or clinical development, manufacture or commercialization of a pharmaceutical product of similar market and profit potential and at a similar stage in development or product life as compared to a Product after considering all relevant factors.

"Confidential Information" means all confidential information and confidential materials, patentable or otherwise, of a Party disclosed by or on behalf of such Party to the other Party before, on or after the Effective Date in connection with the discussions and negotiations pertaining to, or in the course of

performing, this Agreement, including chemical composition of a formulation in LNPs, chemical substances, equipment, data, reports, Know-How, sources of supply, patent positioning, business plans, and also the proprietary and confidential information of Third Parties in possession of such Party under an obligation of confidentiality, whether or not related to making, using or selling a Product.

"Control," "Controls" or "Controlled by" means, with respect to Licensed Intellectual Property, the possession of (whether by ownership or license, other than pursuant to this Agreement), or the ability of Arbutus, as applicable, to grant access to, or a license or sublicense of, the Licensed Intellectual Property as provided for herein.

"Cover," "Covers" or "Covered by" means, with respect to a Product, that the making, using, selling, offering for sale or importing of a Product or practice of a method with respect to the Manufacture or use of such a Product would, but for the licenses granted under this Agreement, infringe a Valid Claim of a Patent in the country in which such activity occurs.

"Develop," "Developing" or "Development" means, excluding Manufacturing, any and all activities and studies required to develop products and services for Regulatory Approval or for Commercialization, including, subject to the terms of this Agreement, having Third Parties conduct such activities and studies on behalf of the Person receiving the rights to Develop.

"Development Milestone" has the meaning set forth in Section 4.2(a).

"Development Milestone Payment" has the meaning set forth in Section 4.2(a).

"Disclosing Party" means the Party that discloses its Confidential Information.

"Effective Date" has the meaning set forth in the introductory paragraph.

"EMA" means the European Medicines Agency, a body of the European Union, or any successor agency(ies) thereof performing similar functions.

"EU5 Countries" means France, Germany, Italy, Spain and the United Kingdom.

"Excluded Arbutus Patents" means those Patents that are the subject of the UBC Agreement as of the Effective Date (and no others), as set forth on Exhibit C.

"Executive Officer" means (a) in the case of Alexion, any senior executive officer of Alexion or any of its Affiliates who is not a member of the JSC; and (b) in the case of Arbutus, any senior executive officer of Arbutus or any of its Affiliates who is not a member of the JSC.

"FDA" means the Food and Drug Administration of the United States Department of Health and Human Services, or any successor agency(ies) thereof performing similar functions.

"Field" means treatment, prevention or diagnosis of human disease or other medical disorder.

"First Commercial Sale" means, on a country-by-country basis, the first *bona fide* sale of a Product to a non-Sublicensee Third Party in an arm's length transaction after Regulatory Approval of such Product in such country for use of such Product in such country. Sales of a Product for registration samples, compassionate use sales, named patient use, inter-company transfers to Affiliates of a Party and the like shall not constitute a First Commercial Sale

"FTE" means full time employee or consultant.

"FTE Rate" means the fully burdened rate established by the Parties for the services of an employee or consultant, which, for the first year of this Agreement, is [***] based on [***] hours per year, or pro-rata portion thereof, subject to an annual increase by a percentage equal to the percentage increase in the Consumer Price Index for the US City Average (all times) for the twelve (12) month period ending with December of the calendar year immediately preceding the anniversary date of the Effective Date, such percentage increase not to exceed [***] in any one calendar year.

"GAAP" means U.S. generally accepted accounting principles as in effect from time to time, consistently applied.

"GLP Toxicity Study" means animal pharmacology and toxicology studies used to assess whether a Product is reasonably safe for initial testing in humans and to support IND filing.

"Governmental Authority" means any United States or supra-national, foreign, federal, state, local, provincial, or municipal government, governmental, regulatory or administrative authority, agency, body, branch, bureau, instrumentality or commission or any court, tribunal, or judicial or arbitral body having relevant jurisdiction over a subject matter, including any Regulatory Authority.

"IND" means, with respect to a Product, an Investigational New Drug Application filed with respect to such Product, as described in the FDA regulations, including all amendments and supplements to the application, and any equivalent filing with any Regulatory Authority outside the United States.

"Indemnified Party" has the meaning set forth in Section 8.3.

"Indemnifying Party" has the meaning set forth in Section 8.3.

"Infringement Action" has the meaning set forth in Section 6.3(b).

"Initiation of First Phase I Study" means the first dosing of a subject in a Phase I Study.

"Initiation of First Phase II Study" means the first dosing of a patient in a Phase II Study.

"Initiation of First Phase III Study" means the first dosing of a patient in a Phase III Study.

"Insolvent Party" has the meaning set forth in Section 9.5.

"Intellectual Property" means Patents, Know-How, trade names, trademarks, copyright, trade dress, industrial and other designs, and all other forms of intellectual property, all whether or not registered, or capable of registration.

"Joint IP" has the meaning set forth in Section 6.1(c).

"Joint Patents" means Patents that cover Joint IP.

"JSC" has the meaning set forth in Section 3.2(a).

"Know-How" means biological materials and other tangible materials, information, data, inventions, practices, methods, methodologies, protocols, formulas, formulations, oligonucleotide sequences, knowledge, trade secrets, processes, assays, skills, techniques and results of experimentation and testing, patentable or otherwise.

"Licensed Intellectual Property" means, other than the Excluded Arbutus Patents, any Arbutus Patents, Arbutus Improvement IP, Arbutus' interest in Joint IP, or LNP Technology Controlled by Arbutus or its Affiliates as of the Effective Date or generated or obtained during the Royalty Payment Term necessary or useful for the Research, Development, Manufacture or Commercialization of the Products for use in the Field in the Territory.

"Licensed Target" means [***].

"LNP Competitor" means any company or other entity that conducts as a material line of business the development of, or license of technology for use in, LNPs to encapsulate drugs. As non-limiting examples as of the Effective Date, LNP Competitors include [***] and their respective Affiliates and successors in interest.

"LNPs" means lipid nanoparticles (including or excluding encapsulated drug), components of lipid particles, formulations comprising lipid particles and methods of manufacturing lipid particles.

"LNP Formulation" means a product that includes an mRNA, wherein the mRNA is encapsulated within LNP.

"LNP Technology" means the Intellectual Property (other than the Excluded Arbutus Patents) directed to (i) the composition of matter of LNPs, (ii) the method of use of LNPs, or (iii) the method of manufacturing LNPs (including or excluding encapsulated drugs), in each case, Controlled by Arbutus or any of its Affiliates at any time during the Term.

"Losses" has the meaning set forth in Section 8.1.

"Manufacture" or "Manufacturing" means, with respect to a Product or its components (including LNPs), all activities associated with the production, manufacture and processing of such product, and the filling, finishing, packaging, labeling, shipping, and storage of such product, including formulation process scale-up for toxicology and clinical study use, aseptic fill and finish, stability testing, analytical development, quality assurance and quality control, and the production of the bulk finished dosage form of such Product. For clarity, Manufacture includes the manufacture of LNPs, formulation of Products with LNPs and the manufacture of Products containing mRNA encapsulated within LNPs.

"mRNA Material" has the meaning set forth in Section 3.3(c).

"Net Sales" means the gross amount received by Alexion, its Affiliates or Sublicensees on sales or other dispositions in the Territory of a Product during a Royalty Payment Term to Third Parties that are not Affiliates or Sublicensees of Alexion, less:

(a) normal and customary trade, quantity or prompt settlement discounts (including chargebacks and allowances) actually allowed;

(b) amounts repaid or credited by reason of rejection, returns or recalls of goods, rebates or *bona fide* price reductions determined by Alexion or its Affiliates in good faith;

(c) rebates and similar payments made with respect to sales paid for by managed care organizations, hospitals, other buying groups or any governmental or regulatory authority including federal or state Medicaid, Medicare or similar state program in the United States or equivalent governmental program in any other country and refunds made in connection with revenue or cost caps agreed with such organizations or entities;

(d) excise taxes, customs duties, customs levies and import fees and other Taxes imposed on the sale, importation, use or distribution of the Products;

(e) administrative fees paid to group purchasing organizations, managed care entities or other similar types of organizations or networks participating in the distribution or sales of the Product;

(f) amounts paid or credited to customers for inventory management services;

(g) that portion of the annual fee on prescription drug manufacturers imposed by the Patient Protection and Affordable Care Act, Pub. L. No. 111-148 (as amended) that is reasonably allocated to the sale of Products;

(h) any other similar and customary deductions that are consistent with GAAP or in the case of non-United States sales, other applicable accounting standards; and

(i) payments made for separately itemized insurance and transportation costs incurred in shipping Product.

Net Sales shall be determined from books and records maintained in accordance with GAAP, consistently applied. Nothing herein will prevent Alexion or any of its Affiliates or Sublicensees from selling, distributing or invoicing any Product at a discounted price for shipments to Third Parties in connection with clinical studies, compassionate or named patient sales, or an indigent program or similar bona fide arrangements in which such party agrees to forego a normal profit margin for good faith business reasons. To the extent that Alexion or its Affiliates or Sublicensees receives any consideration other than monies for the sale of Products, Net Sales shall include the fair market value of such consideration. For the avoidance of doubt, the supply of Products free of charge shall not be included in Net Sales.

If a Product is formulated, packaged or sold with one or more other active ingredients or products for a single price (a "Combination Product"), the Net Sales of the Product shall be calculated for each applicable calendar quarter by multiplying the Net Sales (as determined without reference to this paragraph) of the Combination Product by the fraction A/(A+B), where A is the average gross selling price in the applicable country of the Product(s) when sold separately in finished form, and B is the average gross selling price in the applicable country of the other active ingredient(s) or product(s) included in the Combination Product when sold separately in finished form, in each case for the most recent period in which sales of both occurred. If the Product(s) is/are sold as part of a Combination Product and is/are sold separately in finished form, but the other product(s) included in the Combination Product are not sold separately in finished form, the Net Sales of the Product shall be determined by multiplying the Net Sales of the Combination Product by the fraction A/C, where: A is the average gross selling price in the applicable country of the Product(s) contained in such Combination Product when sold separately, and C is the average gross selling price in the applicable country of the Combination Product. If the Product(s) is/are sold as part of a Combination Product and is/are not sold separately in finished form, but the other product(s) included in the Combination Product are sold separately in finished form, the Net Sales of the Product shall be determined by multiplying the Net Sales of the Combination Product by the fraction C-B/C, where: B is the average sale price of the other product(s) included in such Combination Product when sold separately, and C is the average sale price of the Combination Product. If, on a country-by-country basis, the Product component is not sold separately in that country, Net Sales for the Combination Product shall be calculated by multiplying actual Net Sales of the Combination Product by the fraction D/(D+E), where D is the fair market value of the portion of the Combination Product that contains the Product and E is the fair market value of the portion of the Combination Product containing the other active ingredient(s) included in such Combination Product, as such fair market values are determined by mutual agreement of the Parties through the JSC.

The foregoing analysis shall be conducted on a country-by-country basis as reasonably required to determine relative fair market values of the relevant Combination Product components.

"Party" means ABUS, Protiva or Alexion, and "Parties" means ABUS, Protiva and Alexion.

"Patent" means any patent (including any reissue, extension, substitution, confirmation, re-registrations, re-examination, revival, supplementary protection certificate, patents of addition, continuation,

continuation-in-part, or divisional) or patent application (including any provisional application, non-provisional patent application, continuation, continuation-in-part, divisional, PCT international applications or national phase applications), in each case whether in the U.S. or any foreign country.

"Payload Intellectual Property" has the meaning set forth in Section 6.1(a).

"Permitted Contractor" means a Third Party (e.g., a contractor or consultant) that performs the activities for which Alexion is responsible under this Agreement under a *bona fide* contract services arrangement; *provided*, *however*, that Alexion shall not appoint any LNP Competitor as its Permitted Contractor without Arbutus' prior written consent (which may be granted or withheld in Arbutus' sole discretion).

"Person" means an individual, corporation, limited liability company, syndicate, association, trust, partnership, joint venture, unincorporated organization, government agency or any agency, instrumentality or political subdivision thereof, or other entity.

"Phase I Study" means a human clinical trial of a Product in any country, the primary purpose of which is the determination of safety and which may include the determination of pharmacokinetic and/or pharmacodynamic profiles in healthy individuals or patients.

"Phase II Study" means a human clinical trial of a Product in any country, and which is: (a) a study of dose exploration, dose response, duration of effect, kinetics or preliminary efficacy and safety study of a product in the target patient population; (b) a controlled dose-ranging clinical trial to evaluate further the efficacy and safety of such product in the target population and to define the optimal dosing regimen; or (c) a clinical trial that the sponsoring Party or its Affiliate refers to in a press release as a Phase II Study.

"Phase III Study" means a human clinical trial of a Product in any country, and which is: (a) a controlled study of a product in patients of the efficacy and safety of such product which is prospectively designed to demonstrate statistically whether such product is effective and safe for use in a particular indication in a manner sufficient to obtain Regulatory Approval to market such Product; (b) a clinical trial that the sponsoring Party or its Affiliate refers to in a press release as a Phase III Study; or (c) a trial that is intended to form the primary basis for Regulatory Approval for Commercialization of a Product in one or more countries in the Territory; *provided* that, if a Phase II Study has not previously been completed with respect to such Product, then a clinical trial shall not be deemed a "Phase III Study" until the design of such clinical trial is acknowledged in writing by a Regulatory Authority (either prospectively or following completion of the clinical trial) to be sufficient for such clinical trial to be included as a pivotal efficacy and safety clinical trial in an application for marketing authorization, or equivalent, filed with the applicable Regulatory Authority in the applicable country or jurisdiction.

"Proceeds" has the meaning set forth in Section 6.3(d).

"Product" means a specific LNP Formulation that includes an mRNA encoding a Licensed Target.

"Product Intellectual Property" means all Intellectual Property directed to the specific LNP Formulation(s) developed by the Parties under this Agreement containing mRNA encoding the Licensed Target.

"Protiva" has the meaning set forth in the introductory paragraph.

"Receiving Party" means the Party that receives Confidential Information of the other Party.

"Record Retention Period" has the meaning set forth in Section 4.5(b).

"Regulatory Approval" means, with respect to any country or region, any registration, license, approval or authorization from any Regulatory Authority required for the Development, Manufacture or Commercialization of a Product in a regulatory jurisdiction in such country or region.

"Regulatory and Reimbursement Approval" means, in respect of any Product, after Regulatory Approval in countries in which Regulatory Authorities or other authorities therein approve or determine pricing and/or reimbursement for pharmaceutical products or otherwise, the (i) approval, agreement, determination or governmental decision establishing prices that can be charged to consumers for a Product, and (ii) the addition of such Product to a government drug list or formulary for reimbursement.

"Regulatory Authority" means any federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity anywhere in the world with authority over the Development, Manufacture or Commercialization of a Product under this Agreement. The term "Regulatory Authority" includes the FDA, the EMA, the European Commission and relevant national competent authorities in the EU member states.

"Research" or "Researching" means identifying, evaluating, validating and optimizing products prior to pre-IND cGLP toxicology studies.

"Research Plan" has the meaning set forth in Section 3.4(a).

"Royalty" has the meaning set forth in Section 4.4.

"Royalty Payment Term" means, on Product-by-Product and a country-by-country basis, the term beginning on the First Commercial Sale of such Product in such country and ending on the date of the last to expire Valid Claim of a Patent within the Licensed Intellectual Property that exists in such country that would be infringed absent the license grant in this Agreement.

"Solvent Party" has the meaning set forth in Section 9.5.

"Sublicensee" means a Third Party to whom Alexion has granted a sublicense.

"Support" means all activities performed by Arbutus or its contractors pursuant to Sections 3.3 through 3.6.

"Term" means the term described in Section 9.1.

"Territory" means worldwide.

"Third Party" means any Person other than Arbutus, Alexion or any of their respective Affiliates.

"Third Party Claim" has the meaning set forth in Section 8.3.

"UBC Agreement" means that certain License Agreement by and between Arbutus (or its direct or indirect predecessor) and the University of British Columbia dated July 1, 1998, as amended July 11, 2006 and January 8, 2007.

"Valid Claim" means a claim of an issued and unexpired Arbutus Patent or Joint Patent, which claim has not been revoked or held unenforceable, unpatentable or invalid by a decision of a court or other governmental agency of competent jurisdiction, which is not appealable or has not been appealed within the

time allowed for appeal, and which has not been abandoned, disclaimed, denied, or admitted to be invalid or unenforceable through reissue, re-examination or disclaimer or otherwise.

2. Interpretation1.2 Interpretation

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Words such as “herein,” “hereinafter,” “hereof” and “hereunder” refer to this Agreement as a whole and not merely to a section, paragraph or clause in which such words appear, unless the context otherwise requires. Enumerative references to sections, paragraphs or clauses, or exhibits, without reference to an explicit agreement, document or exhibit, refer to this Agreement or exhibits attached to this Agreement, as applicable. The singular shall include the plural, and each masculine, feminine and neuter reference shall include and refer also to the others, unless the context otherwise requires. The words “include,” “includes” and “including” are deemed to be followed by “without limitation” or words of similar import. Except where the context otherwise requires, the word “or” is used in the inclusive sense (and/or). All dollar amounts are expressed in U.S. dollars.

This Agreement is between financially sophisticated and knowledgeable parties and is entered into by the Parties in reliance upon the economic and legal bargains contained herein. The language used in this Agreement has been negotiated by the Parties and shall be interpreted and construed in a fair and impartial manner without regard to such factors as the Party that prepared, or caused the preparation of, this Agreement or the relative bargaining power of the Parties.

ARTICLEII LICENSE GRANTS AND RELATED RIGHTSARTICLE II - LICENSE GRANTS AND RELATED RIGHTS

1. License Grant to Alexion2.1 License Grant to Alexion

. Subject to the terms and conditions in this Agreement, Arbutus hereby grants to Alexion, and Alexion hereby accepts, an exclusive, sublicensable (subject to Section 2.2), irrevocable (except as set forth in Article IX), perpetual (subject to Article IX) right and license under Licensed Intellectual Property to Research, Develop, Manufacture and Commercialize Products for use in the Field in the Territory.

2. Sublicensing2.2 Sublicensing

. Alexion may grant sublicenses under Section 2.1 on a Product-by- Product basis (with the right to sublicense through multiple tiers only as set forth in this Section 2.2); *provided* that, in the case of sublicenses granted to Affiliates and Third Parties:

(a) Alexion and its Affiliates shall not grant a sublicense (and no Sublicensee shall grant a sub-sublicense) to an LNP Competitor;

(b) in the case of Third Party Sublicensees, each sublicense and sub-sublicense is in writing and on terms consistent with, and subject to, the terms of this Agreement and is granted to a Permitted Contractor or in connection with a grant of a license under Intellectual Property owned or controlled by Alexion or its Affiliates to Develop, Manufacture or Commercialize a Product;

(c) each sublicense and sub-sublicense provides that Arbutus is a third party beneficiary of such sublicense or sub-sublicense, as applicable, and has the right to enforce directly against the Sublicensee or sub-Sublicensee, as applicable, the breach by the Sublicensee or sub-Sublicensee, as applicable, of any term of the sublicense or sub-sublicense agreement to the extent such breach adversely affects Arbutus and would have been a breach under this Agreement;

(d) upon termination of this Agreement, any sublicenses shall convert into a direct license from Arbutus; *provided* the Sublicensee (i) is not then in breach of the sublicense agreement, (ii) agrees in writing to be bound to Arbutus as a licensee under the terms and conditions of this Agreement, and (iii) agrees in

writing that in no event shall Arbutus assume any obligations or liability, or be under any obligation or requirement of performance that extends beyond Arbutus' obligations and liabilities under this Agreement;

(e) in the case of Third Party Sublicensees, Alexion promptly provides Arbutus with a copy of the executed sublicense within 30 days following its execution or in the case of a sub-sublicense, within 30 days following Alexion's receipt thereof, with such reasonable redaction as Alexion or its Sublicensee may make; *provided* that such redactions do not include provisions necessary to demonstrate compliance with the requirements of this Agreement; and

(f) the grant of such sublicense shall not relieve Alexion of its obligations under this Agreement, and Alexion will be responsible for any and all obligations of such Sublicensee as if such Sublicensee were "Alexion" hereunder.

3. Retained Rights2.3 Retained Rights

. Subject to Section 3.1, Arbutus expressly retains all right, title and interest not expressly granted to Alexion under this Article II (or otherwise under this Agreement), including, for the avoidance of doubt, all rights with respect to its LNP Technology and Licensed Intellectual Property for use outside of the Field, and within the Field for (a) Targets other than the Licensed Target or (b) diseases other than the Alexion Disease Area, as well as rights within the Field for the purpose of performing its obligations under this Agreement. Notwithstanding anything to the contrary contained herein, Arbutus is not granting to Alexion a license to Research, Develop, Manufacture or otherwise improve upon the LNPs based on Arbutus Patents or Licensed Intellectual Property or Confidential Information it has received from Arbutus; *provided*, that the foregoing does not restrict Alexion from conducting any such activities so long as it does not infringe any Arbutus Patents or use any Arbutus Confidential Information.

4. Rights in Bankruptcy2.4 Rights in Bankruptcy

. All licenses and rights to licenses granted under or pursuant to this Agreement by Arbutus to Alexion are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the United States Bankruptcy Code (the "Code"), licenses of rights to "intellectual property" as defined under Section 101(35A) of the Code. Alexion, as a licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the Code and, upon commencement of a bankruptcy proceeding by or against Arbutus (or any Affiliate of Arbutus that owns or Controls Licensed Intellectual Property or Arbutus Patents) under the Code, Alexion shall be entitled to a complete duplicate of, or complete access to (as Alexion deems appropriate), any such Intellectual Property and all embodiments of such Intellectual Property.

5. Contractors2.5 Contractors

. Notwithstanding Sections 2.1 and 2.2, Alexion may utilize Permitted Contractors to perform its obligations in accordance with this Agreement; *provided* that Alexion shall not share Arbutus' Confidential Information with any Permitted Contractor unless Alexion and its Permitted Contractor shall have executed a binding agreement which contains obligations of confidentiality, non-use, and invention assignment consistent with and at least as protective of Arbutus' rights as the provisions of this Agreement.

ARTICLEIII SCOPE OF COLLABORATIONARTICLE III - SCOPE OF COLLABORATION

1. Arbutus Exclusivity3.1 Arbutus Exclusivity

. During the Term, Arbutus and its Affiliates shall not alone or with any Third Party, directly or indirectly (including through the grant of rights to a Third Party), research, develop, make, use, sell, offer for sale, import or otherwise exploit any LNP-mediated product comprising mRNA, RNAi, protein, antibody, small molecule compound or other biological, chemical molecule or other molecule (i) that codes for, directly binds to or directly modulates the Licensed Target or (ii) for any use to treat or prevent the Alexion Disease Area.

2. Joint Steering Committee3.2 Joint Steering Committee

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(a) The Parties hereby establish a Joint Steering Committee (the "JSC"), consisting of an equal number of members appointed by each Party, which number of members shall not exceed two (2) from each Party, to oversee the conduct of activities under the Research Plan and make any amendments thereof, subject to the terms set forth herein. Each member of the JSC shall have the appropriate expertise to oversee the Parties' performance of their respective obligations under this Agreement. The initial JSC members shall be designated by each Party within fifteen (15) days after the Effective Date. Each Party shall have the right, at any time and from time to time, to designate a replacement, on a permanent or temporary basis, for any or all of its previously designated members of the JSC.

(b) The JSC shall meet at least twice per Calendar Year (or more frequently as the Parties may agree) on such dates and at such times as the Parties may agree; provided, however, that the first meeting of the JSC must occur within thirty (30) days of the Effective Date. The Parties shall agree in advance on a written agenda for each meeting of the JSC. The regularly scheduled JSC meetings shall take place in person or telephonically as determined by the Parties, but shall include at least one (1) in-person meeting per Calendar Year. The members of the JSC may also convene or be polled or consulted from time to time by means of telephone conference, video conference, electronic mail or correspondence and the like, as the Parties deem necessary. Minutes of any meeting of the JSC shall be promptly issued to the Parties following each meeting, and the Parties shall use Commercially Reasonable Efforts to agree as to the specific text of such minutes within thirty (30) days of issuance.

(c) JSC Disputes.

(i) Within the JSC. All decisions within the JSC will be made by consensus. If the JSC is unable to reach consensus on any issue for which it is responsible, within thirty (30) days after a Party affirmatively states that a decision needs to be made, either Party may elect to submit such issue first to the Parties' Alliance Managers and, if still unresolved, to the Parties' Executive Officers, in accordance with subsection (ii) below.

(ii) Referral to Alliance Managers; Executive Officers. If a Party makes an election under subsection (i) to refer a matter to the Alliance Managers, the JSC will submit in writing the respective positions of the Parties to their respective Alliance Managers. Such Alliance Managers will use good faith efforts to promptly resolve such matter. If the Alliance Managers are unable to reach consensus on any such matter within fifteen (15) days after its submission to them, such matter will be escalated to the Parties' Executive Officers. Each Party's Alliance Manager will submit in writing the position of the Party it represents to the Executive Officer of such Party. The Executive Officers will use good faith efforts to promptly resolve such matter within fifteen (15) days after the Alliance Managers' submission of such matter to them. If the Executive Officers are unable to reach consensus on any such matter within fifteen (15) days after its submission to them, the matter will be decided by Alexion; *provided*, that no decision by Alexion on such matters may require Arbutus to perform any activities or other work under this Agreement that would differ materially from activities expressly required, or otherwise contemplated, to be performed by Arbutus under this Agreement or may otherwise conflict with this Agreement. For clarity, such limitation on Alexion's decision-making authority shall not restrict the control of the timing of commencing, or sequencing, of any research or formulation development activities nor the reduction or increases of any FTEs working on such activities (in accordance with the Research Plan).

(d) Each Party shall be responsible for the costs of its representatives on the JSC, including all travel and related costs and expenses for its members and approved invitees to attend meetings of, and otherwise participate on, the JSC.

(e) Notwithstanding anything to the contrary herein, neither the JSC nor any member of the JSC, in such capacity shall be empowered to change or waive the terms or conditions of this Agreement.

(f) Each Party will appoint an individual (from the Party or from an Affiliate of such Party) to act as the first point of contact between the Parties with regard to questions relating to this Agreement or the

overall relationship between the Parties (each an "Alliance Manager" and collectively the "Alliance Managers"). The Alliance Managers will: (i) use good faith efforts to attend all meetings of the JSC; and (ii) facilitate the resolution of any issue on which the JSC is unable to reach consensus, in accordance with Section 3.2(c)(ii).

3. Formulation Development3.3 Formulation Development

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(a) Arbutus shall perform process and formulation development with Alexion's mRNA payload and Alexion shall perform efficacy and tolerability studies in rodents and non-human primates. Details of the formulation development work to be done by Arbutus shall be provided in the Research Plan. Arbutus shall not provide an LNP Formulation that is claimed and Covered by any of the Excluded Arbutus Patents.

(b) Alexion shall reimburse Arbutus for costs incurred during the formulation development period as follows: (i) materials utilized during the formulation development at cost, (ii) time spent by personnel working on the formulation development at the FTE Rate in accordance with the Research Plan; and (iii) out-of-pocket expenses paid by Arbutus.

(c) Arbutus shall not, and shall cause its Affiliates to not, (i) use any mRNA material, including mRNA API and/or payload, provided by or on behalf of Alexion ("mRNA Material") for any activity other than as set forth in this Agreement, including in the Research Plan; (ii) transfer any mRNA Material to any Person without Alexion's prior written consent; or (iii) modify, analyze, deconstruct or reverse engineer any mRNA Material to determine the structure, sequence or composition of such mRNA Material (including to develop any Know How or other Intellectual Property directed to or otherwise pertaining to any mRNA Material, including the chemical modification of any mRNA Material embodied by such mRNA Material or details of any polypeptide arising from the expression of any mRNA Material).

4. Product Research3.4 Product Research

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(a) The Parties shall prepare a Research Plan (the "Research Plan") that describes: (i) the activities to be undertaken during the Term; (ii) the Party(ies) responsible for each activity; (iii) the deliverables; (iv) a budget for the activities to be performed; and (v) a timeline. An initial copy of the Research Plan is attached hereto as Exhibit B. Any material amendment to the Research Plan shall require the approval of the JSC. Both Arbutus and Alexion shall undertake research studies as set forth in the Research Plan.

Alexion shall reimburse Arbutus for costs incurred during the Product research period as follows: (i) any materials utilized during the Manufacture of any Products at cost plus [***], and (ii) subject to Alexion's prior consent, external consultants or services employed by Arbutus in the Manufacture of Products at cost, and (iii) time spent by personnel working on Product development activities set forth in Section 3.5 at the FTE Rate as provided in the Research Plan. The costs of such activities shall not exceed the budgets set forth in the Research Plan without the prior approval of the JSC.

(b) Within 30 days after each month, Arbutus shall provide Alexion with an invoice of reimbursable costs incurred while executing the Research Plan during such month and Alexion shall pay to Arbutus the invoiced amounts within 30 days of receipt thereof.

5. Development Responsibilities3.5 Development Responsibilities

. For each Product, Arbutus shall:

(a) identify the final LNP Technology formulation to be used with the specified payload; and

(b) produce formulated material for exploratory and comparative studies including:

(i) Manufacture, either at Arbutus or a qualified CMO, Product for GLP toxicology studies;

(ii) at the request, and subject to the approval, of Alexion, prepare Chemistry, Manufacturing and Control sections of IND/IMPD (Investigational Medicinal Product Dossier)/BLA/MAA/NDA submissions for the Product and provide subject matter expert support to answer any questions from Regulatory Authorities in a timely manner; and

(iii) to the extent requested by Alexion, manage or perform Manufacturing process development.

(c) at the request of Alexion, transfer all Manufacturing Know-How to Alexion or a Third Party CMO designated by Alexion and support Alexion in the establishment and validation of an alternative facility for the Manufacture of the Product (the "Manufacturing Facility") as follows:

(i) transfer all tangible embodiments of all Manufacturing Know-How, where "Manufacturing Know-How" means (A) all Know-How used by Arbutus and its Affiliates (or their contractors) sufficient to Manufacture the Product; and (B) any other Know-How that is required to Manufacture the Product in compliance with GMP requirements, including the identity, amounts and assurance quality of ingredients, the manufacturing processes and controls, specifications, technology, inventions, assays, quality control and testing procedures, and batch records; and

(ii) provide technical assistance to implement the processes for the Manufacture of the Product, including the procurement and installation of any process and analytical equipment. Such assistance shall, at the request of Alexion, be provided by providing additional documentation, telephone or on-site visits. Alexion shall reimburse Arbutus for all travel expenses reasonably incurred at the request of Alexion;

(iii) at the request of Alexion, provide such on-site technical assistance necessary for the installation, startup and validation of the Manufacturing Facility and Manufacture of Product. Alexion shall reimburse Arbutus for all travel expenses reasonably incurred at the request of Alexion and for all such assistance under Section 3.5(c)(ii) and (iii) exceeding [***] at the FTE Rate;

6. Manufacturing and Supply Agreement3.6 Manufacturing and Supply Agreement
. The parties will negotiate in good faith a manufacturing and supply agreement upon the request of the JSC.

ARTICLEIV FINANCIAL PROVISIONSARTICLE IV - FINANCIAL PROVISIONS

1. Upfront Payment4.1 Upfront Payment
. On or before the thirtieth (30^{th}) day following the date of an invoice issued on or after the Effective Date, Alexion shall make a one-time fully-earned, non-refundable and non-creditable payment to Arbutus in the amount of [***] as partial consideration for the rights granted under this Agreement.

2. Development Milestone Payments.4.2 Development Milestone Payments

(a) Subject to the terms and conditions of this Agreement (including subsections (b) and (c) below), in consideration of the grant of the license in Section 2.1, Alexion shall pay to Arbutus the one-time Development Milestone Payments (as defined below) upon achievement of the corresponding development milestones (as set forth below, each a "Development Milestone") for the first Product. If the first Product fails to progress through all Development Milestones, the second Product shall be subject to one-time Development Milestone Payments upon achievement of the remaining Development Milestones not yet achieved by the previous Product. Alexion shall provide written notice to Arbutus of the occurrence of each Development Milestone within five (5) Business Days of confirmation of its occurrence, and pay the indicated Development Milestone payment amount (each a "Development Milestone Payment") to Arbutus within thirty (30) days after receipt of an invoice from Arbutus following the occurrence of the applicable Development Milestone as follows:

Development Milestone	Development Milestone Payment
[***]	**[***]**
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

(b) Development Milestone Payments for Development Milestones achieved in any country by a Product will be paid only if the sale of such Product would, but for the license granted under this Agreement, infringe a Valid Claim of an Arbutus Patent or Arbutus Background Patent within the Licensed Intellectual Property in the United States, each of the EU5 Countries or Japan at the time such Development Milestone is achieved had there been a sale of such Licensed Product in such territories on the date the Development Milestone was achieved. If the above Valid Claim criteria is not met at the time of reaching such Development Milestone, then the corresponding Development Milestone Payment will be paid retroactively if and when the criteria is achieved.

(c) If one or more Development Milestones set out in Section 4.2(a) are skipped for any reason (e.g., a Phase II Study was conducted as part of a Phase I Study or an application for Regulatory Approval is filed after completion of a Phase II Study), the Development Milestone Payment for such skipped Development Milestone shall be due at the same time as the Development Milestone Payment for the next achieved Development Milestone. The Development Milestone Payments described above shall be payable only once in relation to each Product that achieves Regulatory Approval.

3. Commercial Milestone Payments4.3 Commercial Milestone Payments.

(a) Subject to the terms and conditions of this Agreement, in further consideration of the licenses and rights granted to Alexion hereunder, upon first achievement by Alexion, its Affiliates and/or Sublicensees of each of the commercialization milestones for Products directed against the Licensed Target set forth below (each, a "Commercial Milestone"), the corresponding one-time, non-refundable and non-creditable Commercial Milestone payment amounts (each, a "Commercial Milestone Payment") shall be payable by Alexion to Arbutus as follows:

Commercial Milestone	Commercial Milestone Payment
First time that worldwide Net Sales in a Calendar Year are in excess US [***]	[***]
First time that worldwide Net Sales in a Calendar Year are in excess US [***]	[***]
First time that worldwide Net Sales in a Calendar Year are in excess US [***]	[***]

(b) Each Commercial Milestone Payment shall be due to Arbutus as of the first achievement by Alexion, its Affiliates and/or Sublicensees of the corresponding Commercial Milestone for a Product. For the avoidance of doubt: (i) each Commercial Milestone Payment shall be payable only on the first occurrence of the Commercial Milestone; and (ii) none of the Commercial Milestone Payments shall be payable more than once in respect of any Product, regardless of how many times such Product achieves the corresponding Commercial Milestone.

4. Royalty Payments4.4 Royalty Payments

. In consideration of the grant of the license in Section 2.1, Alexion shall pay to Arbutus a royalty equal to [***] of Net Sales (the "Royalty"). Following expiry of the Royalty Payment Term in respect of any Product or country (i) the licenses granted to Alexion with respect to such Product and country become fully paid-up, sublicensable (subject to Section 2.2(a)), royalty-free, exclusive, transferable, perpetual and irrevocable

licenses and (ii) the obligation of Alexion to pay any Royalties or Commercial Milestones with respect to sales of Products in such country shall terminate. Without the limiting the definition of the Royalty Payment Term, it shall be deemed to expire upon the expiration of all Valid Claims of Patents within the Licensed Intellectual Property that exist in such country and Cover the composition of matter or a method of use of such Product if a Third Party is selling in such country a substantially similar product.

5. Royalty Reports; Expense Reports; Records and Audits4.5 Royalty Reports; Expense Reports; Records and Audits.

(a) Within sixty (60) days after the end of each calendar quarter during the Royalty Payment Term, Alexion shall provide to Arbutus a written report (in electronic form) that includes, for each calendar quarter, on a Product-by-Product basis, (i) the gross invoiced sales and the Net Sales of any such Product, and (ii) the calculated amount of the Royalty owed by Alexion to Arbutus in respect of the sale of such Product.

(b) Until the third anniversary of the date any book or record is created or such longer period required by Applicable Laws (the "Record Retention Period"), Alexion shall maintain and retain complete and accurate books of account and records covering all transactions relating to payment of amounts that may be due under Article IV of this Agreement. Upon the reasonable advance notice of Arbutus (of at least ten (10) days), Alexion shall make such books and records available for inspection and audit by Arbutus' authorized representative (which shall be a national certified public accounting firm designated by Arbutus and reasonably acceptable to Alexion), subject to reasonable precautions to protect the Confidential Information of Alexion. Such examinations may not be conducted more than once in any twelve (12) month period and going back only during the Record Retention Period after receipt of the respective invoice and report. All audits must be conducted during normal business hours of Alexion and conducted in a manner so as to minimize the impact on the normal operations of Alexion. The accounting firm conducting any such audit must provide a report of its findings of any such audit to both Parties, may only identify in such report whether the amount of Royalties paid was correct and the actual amount of Royalties payable and may not disclose any other Confidential Information of Alexion. The auditor's report and all other information disclosed to the auditor or generated by the auditor in such audit shall be the Confidential Information of Alexion. Arbutus shall pay the cost of such audits unless it discovers that Alexion has underreported aggregate Royalties during the applicable examination period by an amount equal to the greater of [***], in which case the costs of such audit shall be borne by Alexion. If an audit reveals an underpayment or overpayment, the Party responsible for making payment shall promptly pay to the other Party the amount of the underpayment or overpayment discovered unpaid under this Section 4.5(b), subject to Section 4.6(d).

6. Payment Procedure4.6 Payment Procedure.

(a) Remittance of payments under this Article IV shall be made by means of wire transfer of immediately available funds to a bank account designated in advance in writing by Arbutus. All amounts payable to Arbutus under this Agreement shall be paid in United States Dollars. With respect to Net Sales in a currency other than U.S. dollars, the Net Sales will be converted to U.S. dollars using Alexion's then current internal foreign currency translation methodology actually used on a consistent basis in preparing its audited financial statements.

(b) Any Development Milestone Payment or Commercial Milestone Payment owed pursuant to Section 4.2 or 4.3 shall be paid by Alexion to Arbutus within thirty (30) days (or, in the case of Commercial Milestones, 60 days) after the occurrence of the event triggering the payment of such Milestone Payment.

(c) Any Royalty shall accrue in accordance with Section 4.4 during the applicable Royalty Payment Term. Royalty obligations that accrue during a calendar quarter shall be paid within sixty (60) days after the end of such quarter.

(d) Any payments due from one Party to the other Party under this Article IV that are not paid within 30 days after the date such payments are due (and not being disputed in good faith) shall bear interest from the date such unpaid payments are due until paid in full at the lesser of: (i) four percent (4%) above

the prime rate quoted by the Wall Street Journal (U.S., Eastern Edition) in effect on the date that such payment would have been first due, and (ii) the highest amount of interest permitted by Applicable Laws. The foregoing interest shall be in addition to any other remedies that either Party may have pursuant to this Agreement.

7. Taxes4.7 Taxes

. Alexion may deduct or withhold from any payments due to Arbutus amounts for payment of any withholding taxes that are required by law to be paid to any Governmental Authority with respect to such payments. Alexion will give proper evidence from time to time as to the payment of any such tax. Arbutus will provide Alexion all necessary documents and correspondence, and will also use reasonable efforts to provide to Alexion any other cooperation or assistance on a reasonable basis as may be necessary to enable Alexion to claim exemption from such deduction or withholding taxes. The Parties will cooperate with each other in seeking relief or reduction in the deduction or withholding of any tax under any double taxation or other similar treaty or agreement from time to time in force and in seeking to receive a refund of any withholding tax or to claim a foreign tax credit.

ARTICLEV ADDITIONAL OBLIGATIONSARTICLE V - ADDITIONAL OBLIGATIONS

1. Obligations of Alexion5.1 Obligations of Alexion

. Alexion shall use Commercially Reasonable Efforts to Develop and Commercialize at least one Product directed to each Licensed Target in the Territory.

2. Ownership of Approvals, INDs and Registration Filings5.2 Ownership of Approvals, INDs and Registration Filings

. Alexion shall be responsible for, and shall have the decision-making authority in respect of, preparing, determining final content, prosecuting and maintaining in its name INDs and any Regulatory Approvals for Products in the Field under this Agreement. Alexion shall own, in their entirety, (i) all non-clinical and clinical data and reports related to any Product, including those arising from clinical trials conducted for any Product, and (ii) all Regulatory Approvals and applications therefor, including INDs, BLAs and other regulatory filings, related thereto.

3. Regulatory Authority Communications5.3 Regulatory Authority Communications

. Alexion shall be solely responsible for initiating and responding to any communications related to any Product from any Regulatory Authority, including meetings with any Regulatory Authorities.

4. Compliance with Law; Further Assurances5.4 Compliance with Law; Further Assurances

. Both Arbutus and Alexion, and their respective Affiliates, shall perform their respective obligations under this Agreement in compliance with Applicable Laws. The Parties shall cooperate with each other to provide all reasonable assistance and take all actions that are necessary to comply with any Applicable Laws in connection with their respective Regulatory Authority obligations in relation to a Product under this Agreement. In addition, the Parties shall work together in good faith to develop such necessary regulatory strategies which may be required for purposes of this Agreement.

5. Regulatory Authority Inspections5.5 Regulatory Authority Inspections**.** If a Regulatory Authority desires to conduct an inspection or audit of any facility in which any Development or Manufacturing activities are being carried out under this Agreement by or on behalf of Arbutus or any data generated in the conduct of activities under this Agreement by or on behalf of Arbutus, then (i) the Party receiving notice of such inspection or audit shall promptly notify the other Party of such inspection or audit, and (ii) Arbutus shall (A) cooperate with such Regulatory Authority during such inspection or audit, (B) shall immediately update the Alexion during (in the case of multi-day inspections or audits) and following such inspection or audit of any information relating to

Products, (C) shall promptly provide to Alexion the inspection or audit observations of such Regulatory Authority relating to such activities or data; *provided*, that Arbutus shall have the right to redact any material from such inspection or audit observations that do not relate to the Products, (D) shall prepare the response to any such observations, (E) shall provide a copy of such planned response to Alexion to the extent it relates to the Product, shall consult with Alexion concerning the response of Arbutus to each such communication and, if such response affects the product specifications or any Regulatory Approval (or Alexion's obligations to comply with any legal requirements), such response shall be subject to Alexion's approval, and (F) shall conform its activities under this Agreement to any commitments made in such a response.

ARTICLEVI INTELLECTUAL PROPERTYARTICLE VI - INTELLECTUAL PROPERTY

1. Ownership6.1 Ownership

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(a) Subject to the licenses granted by Arbutus herein, Arbutus is and shall at all times remain the sole and exclusive owner of:

(i) all Licensed Intellectual Property,

(ii) its Confidential Information,

(iii) Intellectual Property that (A) is an improvement or enhancement of any LNP Technology included in the Licensed Intellectual Property relating solely to LNP components or formulations, but not the mRNA encoding the Licensed Target (the "LNP Payload"), and (B) that is created, conceived or reduced to practice in the performance of activities conducted under this Agreement by Arbutus or jointly with Alexion (collectively, the "Arbutus Improvement IP"), and

(iv) data and results relating solely to LNP components or formulations, but not the LNP Payload.

Nothwithstanding the foregoing, (A) Arbutus Improvement IP does not include the Product Intellectual Property or Intellectual Property directed solely to LNP Payloads ("Payload Intellectual Property") and (B) in no event shall Arbutus seek a Patent that includes claims directed to Product Intellectual Property or Payload Intellectual Property. Alexion shall, and shall cause its Affiliates to, execute and deliver such additional documents, instruments, conveyances and assurances and take such further actions as may be reasonably required to ensure that all right, title and interest in the Arbutus Improvement IP is effectively transferred to and held by Arbutus.

(b) Alexion is and shall at all times remain the sole and exclusive owner of (i) Alexion's Confidential Information, (ii) all data, results and other Intellectual Property generated, created, conceived or reduced to practice solely or jointly by Alexion in connection with the research, development, manufacture or commercialization of a Product, and (iii) all Product Intellectual Property and Payload Intellectual Property ("Alexion IP"). For the purpose of clarity, in no event shall Alexion seek a patent including claims to Arbutus Improvement IP. Arbutus shall, and shall cause its Affiliates to, execute and deliver such additional documents, instruments, conveyances and assurances and take such further actions as may be reasonably required to ensure that all right, title and interest in the Alexion IP is effectively transferred to and held by Alexion.

(c) Except as set forth in Section 6.1(a) and (b) above:

(i) inventorship of Intellectual Property conceived, reduced to practice or otherwise created in the performance of activities conducted under this Agreement shall be determined by the inventorship laws of the United States;

(ii) all data, results and inventions generated, conceived, reduced to practice or otherwise created solely by employees, consultants or contractors of Arbutus in the performance of activities conducted under this Agreement shall be owned by Arbutus (the "Arbutus Sole IP");

(iii) all data, results and inventions generated, conceived, reduced to practice or otherwise created solely by employees or Permitted Contractors of Alexion in the performance of activities conducted under this Agreement shall be owned by Alexion and included within Alexion IP; and

(iv) all data, results and inventions generated, conceived, reduced to practice or otherwise created jointly by employees, consultants or contractors of Arbutus and by employees or Permitted Contractors of Alexion in the performance of activities conducted under this Agreement shall be owned jointly by the Parties ("Joint IP").

(d) Each Party shall have an undivided interest in Joint IP, and any ownership rights therein may be transferred, in whole or in part, by each Party (unless otherwise prohibited by this Agreement and subject to any licenses thereunder granted under this Agreement); *provided*, however, that (i) each Party agrees not to transfer any of its ownership interest in any of the Joint IP without securing the transferee's written agreement to be bound by the terms of this Section 6.1(d) and (ii) nothing in this Article VI shall relieve a Party or its Affiliates of their obligations under Article VII with respect to Confidential Information of any Party provided by the other Party or such other Party's Affiliates. Neither Party hereto shall have the duty to account to the other Party for any revenues or profits obtained from any transfer of its interest in, or its use, sublicense or other exploitation of, the Joint IP outside the scope of this Agreement. The provisions governing Joint IP set forth in this Section 6.1(d) shall survive the expiration or termination of this Agreement. To the extent necessary to effect the intent of this Section 6.1(d) and subject to any exclusive licenses granted hereunder, each Party grants to the other Party a nonexclusive, royalty-free, worldwide, sublicensable license under such Party's interest in the Joint IP, and all intellectual property rights therein, to make, use, sell, offer for sale and import the relevant Joint IP, for all purposes.

(e) Except as otherwise expressly provided in this Agreement, under no circumstances shall a Party, as a result of this Agreement, obtain any ownership interest or other right, title or interest in or to any other Intellectual Property or Confidential Information of the other Party, whether by implication, estoppel or otherwise, including any items Controlled or developed by the other Party, or delivered by the other Party, at any time pursuant to this Agreement.

2. Prosecution and Maintenance of Patents6.2 Prosecution and Maintenance of Patents

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(a) Arbutus shall have the sole right and responsibility, in its sole discretion and at its sole cost and expense, to file, prosecute, maintain or abandon patent protection in the Territory for Arbutus Patents, or any Patents that are part of the Arbutus Improvement IP and the Arbutus IP, including patent term extensions and defending opposition, re-examination, post-grant review and similar proceedings. Arbutus will notify Alexion of all material developments and all actions to be taken in connection with prosecuting and maintaining the Arbutus Patents that Cover any Product and provide Alexion with copies of all material filings or responses to be made to the patent authorities with respect to such Arbutus Patents and all other material submissions and correspondence with any patent authorities regarding such Arbutus Patents in sufficient time to allow for review and comment by Alexion. Alexion will offer its comments or proposals, if any, promptly, and Arbutus will not unreasonably reject any such comments and proposals.

(b) Alexion shall have the sole right and responsibility, in its sole discretion and at its sole cost and expense, to file, prosecute, maintain or abandon patent protection in the Territory for any Patent that is part of the Alexion IP, including patent term extensions and defending opposition, re-examination, post-grant review and similar proceedings.

(c) Subject to Section 6.2(d), Alexion, by counsel it selects to whom Arbutus has no reasonable objection, in consultation with Arbutus, shall be responsible for the preparation, filing, prosecution and maintenance of the Patents Covering Joint IP in the countries selected by Alexion in consultation with Arbutus. Alexion shall provide Arbutus with access to all substantive documentation, filings and communications to or from the respective patent offices in the Territory with respect to the Joint Patents at reasonable times and

on reasonable notice of at least 10 Business Days. Alexion shall confer with and keep Arbutus reasonably informed regarding the status of such activities.

(d) In the event that Alexion desires to abandon, withdraw or otherwise discontinue the maintenance or prosecution of the Joint Patents in the Territory, Alexion shall provide reasonable prior written notice to Arbutus of such intention (which notice shall, in any event, be given no later than thirty (30) days prior to the next deadline for any action that may be taken with respect to such Patents with the applicable patent office) and Arbutus shall have the right, but not the obligation, to assume, at its expense, responsibility for the prosecution and maintenance thereof.

(e) Except as provided in subsection (d), all out-of-pocket costs and expenses incurred in the preparation, filing, prosecution and maintenance of any Patent that Covers Joint IP in the Territory shall be shared equally by the Parties.

3. Third-Party Infringement of Arbutus Patents and Joint Patents6.3 Third-Party Infringement of Arbutus Patents and Joint Patents.

(a) Each Party shall use reasonable efforts to promptly report in writing to the other Party during the Term any known or suspected commercially relevant infringement by a Third Party of any of the Arbutus Patents or Joint Patents by a Third Party making, using or selling a Product of which such Party becomes aware and provide the other Party with all evidence in its possession supporting or relating to such infringement.

(b) Arbutus shall have the first right to initiate an infringement or other appropriate suit with respect to infringements or suspected infringements of any of the Arbutus Patents by a Third Party making, using or selling a Product ("Infringement Action"), or to take such other actions as Arbutus, in its sole discretion, deems appropriate with respect to such infringements or suspected infringements, all at Arbutus' sole cost and expense, as applicable. Arbutus shall (i) notify Alexion promptly after initiating any such Infringement Action, (ii) consult closely with Alexion regarding all aspects of such Infringement Action, and (iii) permit Alexion to have an attorney of its own choosing participate in such Infringement Action. Arbutus shall not enter into any settlement or compromise in connection with an Infringement Action that would materially eliminate, diminish, or otherwise modify any right, title, or interest of Alexion in any Licensed Intellectual Property or that would require any payments, concessions, or otherwise bind Alexion, without Alexion's prior written consent, which consent shall not be unreasonably withheld, delayed or conditioned. If Arbutus elects not to initiate, pursue or maintain any such Infringement Action, Arbutus shall provide Alexion with prompt written notice of the same and, thereafter, Alexion will have the right, but not the obligation, to initiate, pursue or maintain any Infringement Action Alexion deems appropriate with respect to such infringements or suspected infringements, all at Alexion's sole cost and expense. Thereafter, Alexion shall consult closely with Arbutus regarding all aspects of such Infringement Action and permit Arbutus to have an attorney of its own choosing participate in such Infringement Action. Alexion shall not enter into any settlement or compromise in connection with an Infringement Action that would materially eliminate, diminish, or otherwise modify any right, title, or interest of Arbutus in any Licensed Intellectual Property or that would require any payments, concessions, or otherwise bind Arbutus, without Arbutus's prior written consent, which consent shall not be unreasonably withheld, delayed or conditioned.

(c) Upon the request of the enforcing Party, the other Party shall cooperate with the enforcing Party in any Infringement Action by joining as a party if necessary or required by Applicable Laws.

(d) The Parties shall share in the proceeds from any Infringement Action under Section 6.3(b), including settlements thereof (the "Proceeds"), as follows:

(i) First, for the costs and expenses, including legal fees, that are incurred by either Party as part of or in preparation of the Infringement Action ,

(ii) The remainder of the Proceeds shall be treated as Net Sales, with Arbutus receiving Royalties on such remainder of the Proceeds in accordance with Article IV and Alexion receiving the rest of the remainder of the Proceeds.

4. Defense of Claims Brought by Third Parties6.4 Defense of Claims Brought by Third Parties. Each Party shall promptly notify the other Party if it becomes aware of any claim that Alexion's actual use, sale or practice of Product in connection with its exercise of its license under Section 2.1 infringes, misappropriates, or otherwise violates the Intellectual Property rights of any Third Party.

ARTICLEVII CONFIDENTIAL INFORMATION AND PUBLICITYARTICLE VII - CONFIDENTIAL INFORMATION AND PUBLICITY

1. Non-Disclosure of Confidential Information7.1 Non-Disclosure of Confidential Information. Each Party agrees that, for itself and its Affiliates, until the tenth (10^{th}) anniversary of the termination or expiration of this Agreement, a Receiving Party shall maintain all Confidential Information of the Disclosing Party in strict confidence and shall not disclose Confidential Information to any Third Party without the prior written consent of the Disclosing Party, except for disclosures expressly permitted below. For the avoidance of doubt, Arbutus' Confidential Information includes LNP Technology, Arbutus Patents, Arbutus Improvement IP, and any Joint IP solely directed or relating to LNPs. Notwithstanding anything to the contrary contained in this Agreement, in no event shall Alexion disclose any of Arbutus' Confidential Information to any LNP Competitor, except as provided in Section 7.4.

2. Exceptions7.2 Exceptions. The obligations in this Article VII shall not apply with respect to any portion of the Confidential Information that the Receiving Party can show by competent documented proof: (i) was known to the Receiving Party or its Affiliates, without any obligation to keep it confidential or any restriction on its use, prior to disclosure by the Disclosing Party; (ii) is subsequently disclosed to the Receiving Party or its Affiliates by a Third Party lawfully in possession thereof and without any obligation to keep it confidential or any restriction on its use; (iii) is or otherwise becomes generally available to the public or enters the public domain, either before or after it is disclosed to the Receiving Party, and such public availability is not the result, directly or indirectly, of any fault of, or improper taking, use or disclosure by, the Receiving Party or its Affiliates or anyone working in concert or participation with the Receiving Party or its Affiliates; or (iv) has been independently developed by employees or contractors of the Receiving Party or its Affiliates without the aid, application or use of Confidential Information of the Disclosing Party. Notwithstanding the foregoing, (A) specific Confidential Information disclosed by a Disclosing Party shall not be deemed to be within any exceptions set forth in (i), (ii), or (iii) above merely because it is embraced by more general information to which one or more of those exceptions may apply, (B) no combination of information shall be deemed to be within any such exceptions unless the combination itself and its principle of operation are within the public domain and (C) disclosure of Confidential Information to Regulatory Authorities shall not constitute a public disclosure, unless such information is made available to the public by the Regulatory Authority (i.e., it shall remain Confidential Information after such disclosure). Even though Confidential Information may be within one of the exceptions described in the preceding sentence, the Receiving Party shall not disclose to Third Parties that the excepted Confidential Information was received from the Disclosing Party.

3. Permitted Uses; Protection7.3 Permitted Uses; Protection. Confidential Information of a Disclosing Party may be used by the Receiving Party in the performance of its obligations under this Agreement, including disclosures to Permitted Contractors who are bound by enforceable confidentiality agreements with terms consistent with and at least as protective as this Article VII, as otherwise expressly authorized in this Agreement or as expressly authorized by the Disclosing Party in writing. Confidential Information that is Licensed Intellectual Property may be used by Alexion subject to and in accordance with the provisions of this Agreement, to the extent applicable to Alexion's license to Licensed Intellectual Property, including the Manufacture of the Product. Each Receiving Party shall take

steps to maintain the confidentiality of the Disclosing Party's Confidential Information that are consistent with the steps it takes to maintain the confidentiality of its own Confidential Information of a similar value, but in no event less than commercially reasonable steps; *provided*, *however*, that nothing in this Agreement shall be deemed to eliminate, restrict, or otherwise limit Alexion's license to use such Confidential Information in accordance with the terms and conditions of this Agreement.

4. Permitted Disclosures7.4 Permitted Disclosures

. The Receiving Party may disclose Confidential Information belonging to the Disclosing Party to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances: (i) subject to the proviso below, by either Party to comply with non-patent Applicable Laws (including any securities Applicable Laws or the rules of a securities exchange in a relevant jurisdiction) and with judicial process, if such disclosure is subject to an order of the court, or with written consent of the Disclosing Party; (ii) by Alexion or its Sublicensees, only as necessary in connection with the Development, Manufacture or Commercialization of Product that use or employ Licensed Intellectual Property, including labeling requirements and disclosures in connection with obtaining Regulatory Approvals, so long as the Development, Manufacture or Commercialization of Product has been and is performed in a manner that complies with the terms and conditions of Alexion's license to such Licensed Intellectual Property and reasonable steps are taken to maintain the confidentiality of such Confidential Information even when disclosed for such purposes; (iii) by Alexion to [***] so long as (A) such disclosure is limited to a Product development update, (B) reasonable steps are taken to maintain the confidentiality of Arbutus' Confidential Information, (C) Alexion does not share the chemical composition of a formulation in LNPs and (D) Alexion provides Arbutus with copies of any written material provided to [***] contemporaneously with or promptly following the delivery thereof (from which Alexion may redact information that is not Arbutus' Confidential Information); and (iv) as provided in Section 7.6 *provided*, *however*, that with respect to clause (i) where legally permissible, (a) the Receiving Party shall notify the Disclosing Party of the Receiving Party's intent to make any disclosure sufficiently prior to making such disclosure so as to allow the Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information to be disclosed, including seeking protective orders or injunctive relief, and (b) consistent with Applicable Laws, the Disclosing Party shall have the right to suggest reasonable changes to the disclosure to protect its interests, and the Receiving Party shall not unreasonably refuse to include such changes in its disclosure. Notwithstanding the foregoing, Arbutus may disclose (subject to a binding confidentiality agreement) the name of the Licensed Target (without disclosing the name of Alexion) to the extent required to comply with any target gatekeeping requirements under any agreement with a Third Party.

5. Press Release7.5 Press Release

. Neither Party shall issue a press release or public announcement relating to the other Party or the collaboration activities undertaken pursuant this Agreement without the prior written approval of the other Party, which approval shall not be unreasonably withheld, delayed or conditioned; *provided*, however, that (a) either Party may issue a press release or public announcement as required by Applicable Laws; and (b) nothing in the foregoing shall prevent Alexion from issuing press releases and public announcements regarding a Product that do not reference Protiva, ABUS or the LNP Technology, except that Alexion may (without Arbutus' consent) acknowledge that Arbutus licensed to Alexion the LNP Technology and Arbutus Patents in respect of such Product. Except as otherwise provided herein, each Party agrees not to use the name, trademark, service mark, or design registered to the other Party or its Affiliates in any publicity, promotional, or advertising material, without prior written approval of the other Party.

6. Securities Filings7.6 Securities Filings

. If either Party proposes to file with the Securities and Exchange Commission, or the securities regulators of any state or other jurisdiction, a registration statement or any other disclosure document which describes

or refers to this Agreement under the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, or any other applicable securities law, the Party shall notify the other Party of such intention and shall provide such other Party with a copy of relevant portions of the proposed filing not less than ten (10) Business Days (or such other period as is reasonable under the circumstances) prior to such filing (and any revisions to such portions of the proposed filing a reasonable time prior to the filing thereof), including any exhibits thereto relating to the Agreement, and shall use reasonable efforts to obtain confidential treatment of any information concerning the Agreement that such other Party requests be kept confidential, and shall only disclose Confidential Information which it is advised by counsel is legally required to be disclosed. No such notice shall be required under this Section 7.6 if the substance of the description of or reference to this Agreement contained in the proposed filing has been included in any previous filing made by the either Party hereunder or otherwise approved in writing by the other Party.

7. Terms of this Agreement7.7 Terms of this Agreement

. Except as otherwise specifically set forth in this Article VII, without the prior consent of the other Party, neither Party shall disclose any terms or conditions of this Agreement (including any schedule or exhibit hereto) to any Third Party nor make any statement to the public regarding the execution or any other aspect of the subject matter of this Agreement (including the Development or Commercialization status of Products), except: (a) to the extent such disclosure is required by Applicable Laws or stock exchange rules or regulations and, to the extent practical, the other Party is provided with the opportunity sufficiently in advance of disclosure to review such information and seek confidential treatment thereof; (b) for customary discussions and other disclosures with and to current or prospective investors, potential acquirers, merger partners or potential providers of financing and their advisors; or (c) either Party may use the text of a statement previously approved for public dissemination by the other Party. With respect to any disclosures made pursuant to subsection (b) above, each such Third Party recipient of Confidential Information shall be subject to obligations of confidentiality and non-use with respect to such Confidential Information substantially similar to the obligations of confidentiality and non-use of the Receiving Party pursuant to this Article VII.

ARTICLEVIII INDEMNIFICATIONARTICLE VIII - INDEMNIFICATION

1. Arbutus Indemnification8.1 Arbutus Indemnification

. Arbutus shall indemnify Alexion and its Affiliates, and their respective agents, directors, officers, employees, representatives, successors and permitted assigns (the "Alexion Indemnitees") against and shall hold each of them harmless from any and all losses, costs, damages, fees or expenses ("Losses") actually incurred or suffered by an Alexion Indemnitee to the extent arising out of or in connection with any claim, suit, demand, investigation or proceeding brought by a Third Party based on: (a) any breach of any representation, warranty or covenant by Arbutus under this Agreement; or (b) Arbutus' or its Affiliates' gross negligence, willful misconduct or violation of Applicable Laws. The foregoing indemnification shall not apply to the extent that any Losses are due to Alexion's, its Affiliates' or its Sublicensees' gross negligence or willful misconduct or violation of Applicable Laws.

2. Alexion Indemnification8.2 Alexion Indemnification

. Alexion shall indemnify Arbutus and its Affiliates, and their respective agents, directors, officers, employees, representatives, successors and permitted assigns (the "Arbutus Indemnitees") against and shall hold each of them harmless from any and all Losses actually incurred or suffered by an Arbutus Indemnitee to the extent arising out of or in connection with any claim, suit, demand, investigation or proceeding brought by a Third Party based on: (a) any breach of any representation, warranty or covenant by Alexion under this Agreement; (b) Alexion's, its Affiliates' or its Sublicensees' gross negligence, willful misconduct or violation of Applicable Laws; or (c) except as otherwise provided in any supply agreement between the Parties, product recall, products' liability or similar claims based on the Development, Manufacture or Commercialization

of a Product. The foregoing indemnification obligations shall not apply to the extent that any Losses are due to Arbutus' or its Affiliates' gross negligence or willful misconduct or violation of Applicable Laws.

3. Tender of Defense; Counsel8.3 Tender of Defense; Counsel . Any Person seeking indemnification under this Article VIII (the "Indemnified Party") agrees to give prompt notice in writing to the other Party (the "Indemnifying Party") of the assertion of any claim or the commencement of any action by any Third Party (a "Third Party Claim") in respect of which indemnity may be sought under this Article VIII. Such notice shall set forth in reasonable detail such Third Party Claim and the basis for indemnification (taking into account the information then available to the Indemnified Party). The failure to so notify the Indemnifying Party shall not relieve the Indemnifying Party of its indemnification and hold harmless obligations hereunder, except to the extent such failure shall have materially and adversely prejudiced the Indemnifying Party. The Indemnifying Party shall be entitled to participate in the defense of any Third Party Claim and shall be entitled to control and appoint lead counsel reasonably satisfactory to the Indemnified Party for such defense by written notice to the Indemnified Party within twenty (20) calendar days after the Indemnifying Party has received notice of the Third Party Claim, in each case at its own expense; *provided*, however, that the Indemnifying Party must use commercially reasonable efforts to conduct the defense of the Third Party Claim in a manner designed to protect the rights of the Indemnified Parties, and otherwise conduct such defense actively and diligently, thereafter in order to preserve its rights in this regard. The Indemnifying Party shall not be entitled to assume or maintain control of the defense of any Third Party Claim and shall pay the fees and expenses of one counsel retained by the Indemnified Party if: (a) the Third Party Claim relates to or arises in connection with any criminal proceeding, action, indictment or allegation; (b) the Third Party Claim seeks an injunction or equitable relief against an Indemnified Party or any of its Affiliates; or (c) the Indemnifying Party has failed or is failing to prosecute or defend vigorously the Third Party Claim. Each Indemnified Party shall obtain the prior written consent of the Indemnifying Party, such consent not to be unreasonably withheld, delayed or conditioned, before entering into any settlement of a Third Party Claim. Notwithstanding the foregoing, the Indemnifying Party shall not be entitled to enter into or approve any settlement of a Third Party Claim without the consent of the Indemnified Party (which may be withheld in its sole discretion), if the settlement (i) does not expressly unconditionally release all applicable Indemnified Parties and their Affiliates from all Losses with respect to such Third Party Claim, (ii) imposes injunctive or other equitable relief against the Indemnified Party or any of its Affiliates, (iii) involves any admission of criminal or similar liability, or (iv) involves any monetary damages that may not be fully covered by the Indemnifying Party. In the event that the Indemnifying Party fails to assume the defense of the Third Party Claim in accordance with this Section 8.3, (1) the Indemnified Party may defend against the Third Party Claim in any manner it reasonably may deem appropriate, and (2) the Indemnifying Party shall remain responsible for any Losses of the Indemnified Party as a result of such Third Party Claim. In circumstances where the Indemnifying Party is controlling the defense of a Third Party Claim in accordance with this Section 8.3, the Indemnified Party shall be entitled to participate in the defense of any Third Party Claim and to employ separate counsel of its choice for such purpose, in which case the fees and expenses of such separate counsel shall be borne by such Indemnified Party. Notwithstanding anything herein to the contrary, in circumstances where there is a conflict of interest that would reasonably make it inappropriate under applicable standards of professional conduct to have common counsel for the Indemnifying Party and the Indemnified Party, the Indemnified Party shall be entitled to employ separate counsel, that is reasonably acceptable to the Indemnifying Party, and the Indemnifying Party shall pay the reasonable fees and expenses of such separate counsel. Each Party shall cooperate, and cause their respective Affiliates to cooperate in all reasonable respects, in the defense or prosecution of any Third Party Claim and shall furnish or cause to be furnished such records, information and testimony, and attend such conferences, discovery proceedings, hearings, trials or appeals, as may be reasonably requested in connection therewith, all at the expense of the Indemnifying Party.

ARTICLEIX TERM AND TERMINATIONARTICLE IX - TERM AND TERMINATION

1. Term9.1 Term

. The term of this Agreement shall begin on the Effective Date and, unless terminated earlier as provided herein, shall continue indefinitely (the "Term"). Following expiry of the Royalty Payment Term in respect of any Product or country, Alexion shall have the paid-up licenses described in Section 4.4.

2. Termination for Material Breach9.2 Termination for Material Breach2

. If either Party commits a material breach of any of its obligations under this Agreement in respect of any Product, and such breach or default continues without cure for a period of ninety (90) days after delivery by the other Party of written notice reasonably detailing such breach or default, then the other Party shall have the right to terminate this Agreement in respect of such Product only, with immediate effect, by giving written notice to the breaching Party. The Parties shall retain all rights and remedies (at law or in equity) in respect of any breach hereof.

3. Termination for Abandonment by Alexion9.3 Termination for Abandonment by Alexion

. If Alexion or its Affiliates or Sublicensees fail to undertake any material activity (i.e., no material investment in the program, no material regulatory applications filed, no material correspondence or other material interactions seeking clinical trial advancement, or no clinical trial initiation or progressing of clinical trials) to further the Development or Commercialization of any Product for a period greater than nine (9) consecutive months, Arbutus will have the right to terminate this Agreement upon written notice to Alexion specifying in reasonable detail the basis for such claim (such notice, the "Abandonment Notice"); *provided*, that, (a) within fifteen (15) days of receipt of an Abandonment Notice, Alexion will have the right to request a meeting with Arbutus to discuss Arbutus' abandonment claim, (b) following such meeting, if the Parties are unable to reach agreement on whether abandonment under this Section 9.3 occurred prior to the Abandonment Notice, either Party may refer the matter for dispute resolution in accordance with Section 3.2(c)(ii), *provided*, if no consensus is reached following the dispute resolution procedure set forth in Section 3.2(c)(ii), the matter will not be decided by Alexion but by an Adjudicator; and (c) the termination of this Agreement shall not be effective until such Adjudicator has determined that such abandonment has occurred.

4. Challenges of Arbutus Patents or Joint Patents9.4 Challenges of Arbutus Patents or Joint Patents

. If Alexion or any of its Affiliates or Sublicensees directly or indirectly and voluntarily commences or participates in any action or proceeding (including any patent opposition or re-examination proceeding), or otherwise asserts in writing (to Arbutus or any of its Affiliates or to the U.S. Patent and Trademark Office) any claim challenging or denying the validity of any of the Arbutus Patents, Arbutus shall have the right to give notice to Alexion (which notice must be given, if at all, within ninety (90) days after Arbutus' CEO or General Counsel first learns of the foregoing) that the licenses granted by Arbutus to Alexion hereunder to such Arbutus Patent(s) shall terminate ninety (90) days following Alexion's receipt of such notice, and, unless Alexion or its Affiliates or Sublicensees, as applicable, withdraw or cause to be withdrawn all such challenge(s) within such ninety-day period, such licenses to such Arbutus Patent shall so terminate; *provided* that if such action, proceeding or assertion is made by a Sublicensee, the license shall only terminate with respect to the sublicense granted to such Sublicensee. Neither Alexion's, its Affiliates', a Sublicensee's, or any of their employees' participating in or appearing in any such action, proceeding or claim as a result of receiving a subpoena or other court order requiring such participation or appearance shall give rise to a right for Arbutus to terminate as set forth in this Section 9.4. Notwithstanding the foregoing, nothing in this Section 9.4 shall apply to, or prevent or limit Alexion or its Affiliates from engaging in any way in, (i) any claim, demand, action or cause of action brought by or on behalf of Arbutus or any of its Affiliates, (ii) making any counterclaims in any action, (iii) participating in any process, action or proceeding initiated by or on behalf

of Arbutus or any of its Affiliates, or (iv) participating in any process, action or proceeding, including any post-grant review, interference, re-examination, opposition or other proceeding, initiated against any Patent owned by or licensed to Alexion or any of its Affiliates.

5. Rights in Bankruptcy9.5 Rights in Bankruptcy

. Each Party (the "Insolvent Party") shall promptly notify the other Party (the "Solvent Party") in writing upon the initiation of any proceeding in bankruptcy, reorganization, dissolution, liquidation or arrangement for the appointment of a receiver or trustee to take possession of the assets of the Insolvent Party or similar proceeding under law for release of creditors by or against the Insolvent Party or if the Insolvent Party shall make a general assignment for the benefit of its creditors. To the extent permitted by Applicable Laws, if the applicable circumstances described above shall have continued for ninety (90) days undismissed, unstayed, unbonded and undischarged, the Solvent Party may terminate this Agreement upon written notice to the Insolvent Party at any time. If Arbutus is the Insolvent Party, the rights and remedies granted to Alexion (as the Solvent Party) pursuant to this Section 9.5 shall be in addition to, and not in lieu of, Alexion's rights and remedies under Section 2.4.

6. Consequences of Termination; Survival9.6 Consequences of Termination; Survival.

(a) In the event this Agreement is properly terminated in accordance with its terms, then each Party's rights and licenses under the Licensed Intellectual Property shall terminate upon the effective date of such termination; *provided*, *however*, that if this Agreement is properly terminated in accordance with its terms in respect of one or more Products, then each Party's rights and licenses under the Licensed Intellectual Property shall terminate upon the effective date of such termination in respect of such Product only and this Agreement shall continue in effect in respect of all other Products. Termination of this Agreement (in whole or in part) shall not relieve the Parties of any obligation accruing prior to or upon such expiration or termination and the provisions of this Section 9.6 and Article I (Definitions), Article VI (Intellectual Property), Article VII (Confidential Information and Publicity), Article VIII (Indemnification), and Sections 10.2-10.16 (Miscellaneous) shall survive any expiration or termination of this Agreement.

(b) If Alexion terminates this Agreement pursuant to Section 9.2 in respect of any Product, it may elect to continue the rights and licenses under the Licensed Intellectual Property granted to Alexion pursuant to Section 2.1 in respect of such Product (and any sublicenses granted by Alexion in respect thereof) shall continue in full force and effect subject to the payment obligations of Alexion set forth in Article IV; *provided*, that any future milestone and Royalty payments will be reduced by [***] until such time as Alexion shall have fully recovered all Losses in respect of the applicable material breach by Arbutus.

(c) On the effective date of termination of this Agreement between the Parties, each Party shall promptly return to the other Party all written Confidential Information, and all copies thereof (except for one archival copy to be retained solely for the purpose of confirming which information to hold in confidence hereunder).

(d) The termination by Arbutus of the rights granted to Alexion under Article II in respect of any specific Product(s) in any specific country(ies) shall be without prejudice to Arbutus' right to receive:

(i) all payments from Alexion accrued under this Agreement as of the effective date of termination, which, costs shall include Arbutus' reasonable and necessary non-cancelable obligations to Third Parties actually incurred by Arbutus in the performance if its obligations under this Agreement prior to the date of notice of termination; and

(ii) within thirty (30) days after the effective date of such termination, a written report from Alexion detailing the amount of Product(s) that Alexion, its Affiliates, Sublicensees and sub-Sublicensees then have completed on hand, the sale of which would, but for the termination, be subject to Royalty.

7. Remedies9.7 Remedies

. The Parties acknowledge and agree that, in the event of a breach or a threatened breach by either Party of this Agreement for which it shall have no adequate remedy at law, the other Party may suffer irreparable damage and, accordingly, may be entitled to injunctive and other equitable remedies to prevent or restrain such breach or threatened breach, in addition to any other remedy they might have at law or at equity. In the event of a breach or threatened breach by a Party of any such provision, the other Party shall be authorized and entitled to seek from any court of competent jurisdiction injunctive relief, whether preliminary or permanent, arising from such breach, which rights shall be cumulative and in addition to any other rights or remedies to which the other Party may be entitled in law or equity.

ARTICLEX MISCELLANEOUSARTICLE X - MISCELLANEOUS

1. Representations and Warranties10.1 Representations and Warranties2

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(a) Mutual Representations and Warranties by Arbutus and Alexion.

(i) Each Party hereby represents and warrants to the other Party as of the Effective Date that:

(a) it is duly organized and validly existing under the laws of the jurisdiction of its incorporation or formation, and has all necessary power and authority to conduct its business in the manner in which it is currently being conducted, to own and use its assets in the manner in which its assets are currently owned and used, and to enter into and perform its obligations under this Agreement;

(b) the execution, delivery and performance of this Agreement has been duly authorized by all necessary action on the part of such Party and its Board of Directors or other governing body and no consent, approval, order or authorization of, or registration, declaration or filing with any Third Party or Governmental Authority is necessary for the execution, delivery or performance of this Agreement;

(c) this Agreement constitutes the legal, valid and binding obligation of such Party, enforceable against it in accordance with its terms, subject to (A) Applicable Laws of general application relating to bankruptcy, insolvency and the relief of debtors, and (B) Applicable Laws governing specific performance, injunctive relief and other equitable remedies;

(d) such Party shall perform its obligations herein in compliance with all Applicable Laws; and

(e) neither such Party nor any of its Affiliates or their employees have ever been (i) convicted of a crime for which a Person can be debarred under Section 306(a) or 306(b) of the Generic Drug Enforcement Act of 1992 or under 42 U.S.C. Section 1320-7 or (ii) sanctioned by, suspended, excluded or otherwise ineligible to participate in any federal health care program, including Medicare and Medicaid or in federal procurement or non-procurement programs. If at any time this representation and warranty is no longer accurate, Arbutus or Alexion, as the case may be, shall immediately notify the other of such fact.

(b) Arbutus Representations, Warranties, and Covenants

(c) . Arbutus hereby represents, warrants, and covenants to Alexion that:

(i) as of the Effective Date, Arbutus has no actual knowledge that the Manufacture, use, sale and import of Licensed Intellectual Property, including as may be used in a Product, infringes, misappropriates or otherwise violates any issued Patent or other Intellectual Property right of any Third Party anywhere in the Territory;

(ii) neither Arbutus nor any of its Affiliates has assigned, transferred, conveyed or otherwise encumbered, nor during the Term shall assign, transfer, convey or otherwise encumber, its right, title and interest in the Arbutus Patents, Confidential Information and other Licensed Intellectual Property either owned by or exclusively licensed to Arbutus as of the Effective Date in a manner that conflicts with any rights granted to Alexion hereunder;

(iii) Arbutus has not, and will not following the Effective Date (A) grant any rights that are inconsistent with the rights granted to Alexion herein or (B) take any action that would prevent it from granting the rights granted to Alexion under this Agreement, or that would otherwise materially conflict with or adversely affect Alexion's rights under this Agreement;

(iv) Arbutus solely Controls all Patents listed in Exhibit A;

(v) as of the Effective Date, all Intellectual Property that is owned or licensed by Arbutus and which is necessary or useful to Research and Develop Products is Controlled by Arbutus, other than commercially available software and commercially available laboratory materials. Following the Effective Date, Arbutus will not enter into any agreement with any Affiliate or Third Party that would conflict with the grant of the licenses and other rights to Alexion hereunder to the Licensed Intellectual Property;

(vi) Arbutus has not received, and is not aware of, any claims or allegations that a Third Party has any right or interest in or to any Arbutus Patent or any other Licensed Intellectual Property or that any Third Party claims or alleges that such Arbutus Patents are invalid or unenforceable; and

(vii) Arbutus has not received, nor is it aware of, any claims or allegations that practice of the Licensed Intellectual Property infringes or misappropriates any Intellectual Property rights of any Third Party.

(d) Warranty Disclaimer

(e) . EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTY OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, TO THE OTHER PARTY WITH RESPECT TO ANY INTELLECTUAL PROPERTY, PRODUCTS, GOODS, RIGHTS OR OTHER SUBJECT MATTER OF THIS AGREEMENT AND HEREBY DISCLAIMS ALL IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR VALIDITY OF PATENTS WITH RESPECT TO ANY AND ALL OF THE FOREGOING. EACH PARTY HEREBY DISCLAIMS ANY REPRESENTATION OR WARRANTY THAT THE DEVELOPMENT, MANUFACTURE OR COMMERCIALIZATION OF ANY PRODUCT PURSUANT TO THIS AGREEMENT SHALL BE SUCCESSFUL OR THAT ANY PARTICULAR SALES LEVEL WITH RESPECT TO ANY SUCH PRODUCT SHALL BE ACHIEVED.

2. Force Majeure10.2 Force Majeure

. Except with respect to payment obligations, a Party shall neither be held liable or responsible to any other Party, nor be deemed to have defaulted under or breached this Agreement, for failure or delay in fulfilling or performing any term of this Agreement to the extent, and for so long as, such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party, including fire, floods, embargoes, power shortage or failure, acts of war (whether war be declared or not), insurrections, riots, terrorism, civil commotions, strikes, lockouts or other labor disturbances, acts of God or any acts, omissions or delays in acting by any Governmental Authority or any other Party, and such affected Party promptly begins performing under this Agreement once such causes have been removed.

3. Consequential Damages10.3 Consequential Damages

. UNDER NO CIRCUMSTANCES WILL ANY PARTY BE LIABLE TO ANY OTHER PARTY WITH RESPECT TO THIS AGREEMENT, AND THE ACTIVITIES CONTEMPLATED HEREBY, FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL OR SIMILAR DAMAGES, WHETHER FORESEEABLE OR UNFORESEEABLE AND REGARDLESS OF THE CAUSE OF ACTION FROM WHICH THEY ARISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OCCURRING. NOTWITHSTANDING THE FOREGOING, NOTHING IN THIS SECTION 10.3 IS INTENDED TO OR SHALL LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OF A

PARTY OR DAMAGES AVAILABLE FOR A PARTY'S BREACH OF CONFIDENTIALITY OBLIGATIONS IN ARTICLE VII.

4. Assignment10.4 Assignment
. Neither Party shall assign any of its rights and obligations hereunder without the prior written consent of the other Party, except (a) to a purchaser of all or substantially all of the assets or business of such Party to which this Agreement relates, or to the successor resulting from any merger, acquisition, consolidation or similar transaction with such Party or (b) to an Affiliate; *provided*, *however*, that (i) such assignment to an Affiliate shall not relieve such Party of its obligations herein, and (ii) in each case, the assigning Party shall provide the other Party with written notice of such assignment. Any purported transfer or assignment in contravention of this Section 10.4 shall, at the option of the non-assigning Party, be null and void and of no effect. This Agreement shall be binding upon and inure to the benefit of the Parties and their permitted successors and assigns.

5. Notices10.5 Notices
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Notices to Alexion shall be addressed to:
Alexion Pharma Holding
22 Victoria Street
Hamilton HM 12 Bermuda
Attention: Secretary
Facsimile: 441-298-3439

With a copy to (which will not constitute notice):

Alexion Pharmaceuticals, Inc.
100 College Street
New Haven, CT 06510
Attention: Chief Legal Officer
Facsimile: 203-271-8198

Notices to Arbutus shall be addressed to:

Arbutus Biopharma Corporation
100-8900 Glenlyon Parkway
Burnaby, B.C.
Canada V5J 5J8
Attention: President & CEO
Facsimile: (604) 630-5103

In each case with copy to:
Orrick, Herrington & Sutcliffe LLP
51 West 52nd Street
New York, NY 10019
Attention: R. King Milling

Facsimile: (212) 506-5151

Any Party hereto may change their address by giving notice to the other Parties in the manner provided in this Section 10.5. Any notice required or provided for by the terms of this Agreement shall be in writing and shall be (a) sent by certified mail, return receipt requested, postage prepaid, (b) sent via a reputable international express courier service, or (c) sent by facsimile transmission, with a copy by regular mail. The effective date of the notice shall be the actual date of receipt by the receiving party.

6. Independent Contractors10.6 Independent Contractors
. It is understood and agreed that the relationship between the Parties is that of independent contractors and that nothing in this Agreement shall be construed as authorization for either Party to act as the agent for the other Party.

7. Governing Law; Dispute Resolution10.7 Governing Law; Dispute Resolution
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(a) This Agreement shall be governed and interpreted in accordance with the substantive laws of the State of New York, excluding its conflicts of laws principles.

(b) The Parties recognize that a *bona fide* dispute as to certain matters may from time to time arise during the Term that relate to a Party's rights or obligations hereunder. In the event of the occurrence of any such dispute, the Parties shall first have such dispute referred to their respective executives designated below for attempted resolution by good faith negotiations within sixty (60) calendar days after such notice is received. If the matter is not resolved within such sixty (60) days, either Party shall thereafter have the right to pursue any and all other remedies available at law or in equity, subject to this Section 10.7. For clarity, any disputes, controversies or differences arising from the JSC will be resolved solely in accordance with Section 3.2.

(c) The Parties consent to the exclusive jurisdiction of the Federal courts and the State courts of the State of New York, in each case, located in the borough of Manhattan, City of New York for any action referenced in Section 10.7(b) THE PARTIES HEREBY IRREVOCABLY WAIVE, AND AGREE TO CAUSE THEIR RESPECTIVE AFFILIATES TO WAIVE, THE RIGHT TO TRIAL BY JURY IN SUCH ACTIONS.

8. Severability10.8 Severability
. In the event that any provision of this Agreement is held by a court of competent jurisdiction to be unenforceable because it is invalid or in conflict with any law of the relevant jurisdiction, the validity of the remaining provisions shall not be affected and the rights and obligations of the Parties shall be construed and enforced as if the Agreement did not contain the particular provisions held to be unenforceable, *provided* that the Parties, shall negotiate in good faith a modification of this Agreement with a view to revising this Agreement in a manner that reflects, as closely as is reasonably practicable, the commercial terms of this Agreement as originally signed.

9. No Implied Waivers10.9 No Implied Waivers
. The waiver by any Party of a breach or default of any provision of this Agreement by any other Party shall not be construed as a waiver of any succeeding breach of the same or any other provision, nor shall any delay or omission on the part of any Party to exercise or avail itself of any right, power or privilege that it has or may have hereunder operate as a waiver of any right, power or privilege by such Party.

10. Headings10.10 Headings
. The headings of articles and sections contained in this Agreement are intended solely for convenience and ease of reference and do not constitute any part of this Agreement, or have any effect on its interpretation or construction.

11. Entire Agreement; Amendment10.11 Entire Agreement; Amendment

. This Agreement (along with the attachments) contains the entire understanding of the Parties with respect to the subject matter hereof and thereof and supersede and replace any and all previous arrangements and understandings, whether oral or written, between the Parties with respect to the subject matter hereof and thereof. This Agreement (including the attachments hereto) may be amended only by a writing signed by each of the Parties.

12. Waiver of Rule of Construction10.12 Waiver of Rule of Construction
. Each Party has had the opportunity to consult with counsel in connection with the review, drafting and negotiation of this Agreement. Accordingly, the rule of construction that any ambiguity in this Agreement shall be construed against the drafting party shall not apply.

13. No Third-Party Beneficiaries10.13 No Third-Party Beneficiaries
. Except as expressly contemplated herein, no Third Party, including any employee of either Party, shall have or acquire any rights by reason of this Agreement.

14. Further Assurances10.14 Further Assurances
. Each Party shall provide such further documents or instruments required by the other Party as may be reasonably necessary or desirable to give effect to the purpose of this Agreement and carry out its provisions.

15. Performance by Affiliates10.15 Performance by Affiliates
. Either Party may use one or more of its Affiliates to perform its obligations and duties hereunder, and Affiliates of a Party are expressly granted certain rights herein; *provided* that each such Affiliate shall be bound by the corresponding obligations of such Party and the relevant Party shall remain liable hereunder for the prompt payment and performance of all their respective obligations hereunder.

16. Counterparts10.16 Counterparts
. This Agreement may be executed in any number of counterparts in original or by facsimile or PDF copy, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument.

[*Signature Page Follows*]

IN WITNESS WHEREOF, authorized representatives of Alexion, ABUS and Protiva have executed and delivered this Agreement effective as of the Effective Date.

ALEXION PHARMA HOLDING

By: /s/ Christopher Brough
Name: Christopher Brough
Title: Director

PROTIVA BIOTHERAPEUTICS INC.

By: /s/ Mark Murray
Name: Mark Murray
Title: President & CEO

By: /s/ Bruce Cousins
Name: Bruce Cousins
Title: Executive-Vice President & CFO

ARBUTUS BIOPHARMA CORPORATION

By: /s/ Mark Murray
Name: Mark Murray
Title: President & CEO

By: /s/ Bruce Cousins
Name: Bruce Cousins
Title: Executive-Vice President & CFO

Exhibit A

Arbutus Issued and Published Patents Exhibit A Arbutus Issued and Published Patents

[***]

Exhibit B

Research Plan

[***]

Exhibit C

Excluded Arbutus Patents Exhibit C Excluded Arbutus Patents

[***]

Exhibit 21.1

Arbutus Biopharma Corporation

List of Subsidiaries

Name	Date on which the entity became Arbutus' wholly owned sub	Jurisdiction
Protiva Biotherapeutics Inc.	May 30, 2008	British Columbia, Canada
Arbutus Biopharma Inc.	Mar. 4, 2015	Delaware, United States of America

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
Arbutus Biopharma Corporation

We consent to the incorporation by reference in the registration statement (No. 333-215290) on Form S-3/A and registration statements (No. 333-202762 and No. 333-186185) on Form S-8 of Arbutus Biopharma Corporation of our reports dated March 21, 2017 with respect to the consolidated balance sheets of Arbutus Biopharma Corporation as at December 31, 2016 and December 31, 2015 and the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and the effectiveness of internal control over financial reporting as of December 31, 2016, which reports appear in the December 31, 2016 annual report on Form 10-K of Arbutus Biopharama Corporation.

Our report dated March 21, 2017, on the effectiveness of internal control over financial reporting as of December 31, 2016, expresses our opinion that Arbutus Biopharma Corporation did not maintain effective internal control over financial reporting as of December 31, 2016 because of the effect of a material weakness on the achievement of the objectives of the control criteria and contains an explanatory paragraph that states a material weakness related to management's review of the estimated discount rate and mathematical accuracy of the impairment calculation used in the annual impairment evaluation of intangible assets and goodwill has been identified.

/s/ KPMG LLP
Chartered Professional Accountants

March 21, 2017
Vancouver, Canada

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14 OR 15d-14 OF THE SECURITIES

EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE

SARBANES-OXLEY ACT OF 2002

I, Mark J. Murray, certify that:

1. I have reviewed this Form 10-K Arbutus Biopharma Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 21, 2017

/s/ Mark J. Murray

Name: Mark J. Murray

Title: President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14 OR 15d-14 OF THE SECURITIES

EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE

SARBANES-OXLEY ACT OF 2002

I, Bruce Cousins, certify that:

1. I have reviewed this Form 10-K of Arbutus Biopharma Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting

Date: March 21, 2017

/s/ Bruce Cousins

Name: Bruce Cousins

Title: Executive Vice President, Finance and Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO SECTION 906

OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Arbutus Biopharma Corporation (the "Company") on Form 10-K for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I Mark J. Murray, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: March 21, 2017

/s/ Mark J. Murray

Name: Mark J. Murray

Title: President and Chief Executive Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO SECTION 906

OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Arbutus Biopharma Corporation (the "Company") on Form 10-K for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I Bruce Cousins, Executive Vice President, Finance and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: March 21, 2017

/s/ Bruce Cousins

Name: Bruce Cousins

Title: Executive Vice President, Finance and Chief Financial Officer