

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-Q**

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended **June 30, 2018**

OR

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**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**98-0597776**  
(I.R.S. Employer  
Identification No.)

**100-8900 Glenlyon Parkway, Burnaby, BC, Canada V5J 5J8**

(Address of Principal Executive Offices)

**604-419-3200**

(Registrant's Telephone Number, Including Area Code)

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       No

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       No

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       Accelerated filer       Non-accelerated filer       Smaller reporting company       Emerging growth company   
(Do not check if a smaller reporting company)

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

[ ]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes [ ] No [X]

As of July 31, 2018, the registrant had 55,404,298 common shares, no par value, outstanding. In addition, the Company had 6,757,728 stock options outstanding and 1,164,000 Series A participating convertible preferred shares (the "Preferred Shares"). The Preferred Shares will be subject to mandatory conversion into 22,589,601 common shares on October 16, 2021 (subject to limited exceptions in the event of certain fundamental corporate transactions relating to Arbutus' capital structure or assets, which would permit earlier conversion at Roivant's option). Assuming the 6,757,728 stock options were exercised and preferred shares were converted into 22,589,601 common shares, the Company would have had 84,751,627 common shares outstanding at July 31, 2018.

ARBUTUS BIOPHARMA CORP.

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## PART I. FINANCIAL INFORMATION

## ITEM 1. FINANCIAL STATEMENTS (UNAUDITED)

## ARBUTUS BIOPHARMA CORPORATION

## Condensed Consolidated Balance Sheets

(Unaudited)

(Expressed in thousands of U.S. dollars, except share and per share amounts)

(Prepared in accordance with US GAAP)

	June 30, 2018	December 31, 2017
<b>Assets</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 10,193	\$ 54,292
Short-term investments (note 2)	144,676	72,060
Accounts receivable	1,322	402
Accrued revenue	—	128
Investment tax credits receivable	342	340
Prepaid expenses and other assets	1,236	2,144
<b>Total current assets</b>	<b>157,769</b>	<b>129,366</b>
Restricted cash (note 2)	—	12,601
Investment in Genevant (note 3)	27,446	—
Property and equipment	16,576	24,854
Less accumulated depreciation	(5,895)	(12,671)
Property and equipment, net of accumulated depreciation	10,681	12,183
Intangible assets (note 4)	58,647	58,647
Goodwill (note 4)	22,471	24,364
<b>Total assets</b>	<b>\$ 277,014</b>	<b>\$ 237,161</b>
<b>Liabilities and stockholders' equity</b>		
<b>Current liabilities:</b>		
Accounts payable and accrued liabilities (note 7)	\$ 7,385	\$ 10,646
Deferred revenue (note 5)	974	2,742
Liability-classified options (note 2)	2,092	1,239
Site consolidation accrual (note 9)	1,090	—
<b>Total current liabilities</b>	<b>11,541</b>	<b>14,627</b>
Deferred lease incentives, net of current portion	689	693
Loan payable (note 8)	—	12,001
Contingent consideration (notes 2 and 10)	9,769	10,424
Deferred tax liability	16,943	16,943
<b>Total liabilities</b>	<b>38,942</b>	<b>54,688</b>
<b>Stockholders' equity:</b>		
Preferred shares (note 6)		
Authorized - 1,164,000 with no par value		
Issued and outstanding: 1,164,000 (December 31, 2017 - 500,000)	120,922	49,780
Common shares		
Authorized - unlimited number with no par value		
Issued and outstanding: 55,325,250 (December 31, 2017 - 55,060,662)	878,191	876,108
Additional paid-in capital	44,429	42,840
Deficit	(757,285)	(738,070)
Accumulated other comprehensive loss	(48,185)	(48,185)
<b>Total stockholders' equity</b>	<b>238,072</b>	<b>182,473</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 277,014</b>	<b>\$ 237,161</b>

Nature of business and future operations (note 1)

Contingencies and commitments (note 10)

Related party transactions (note 12)

See accompanying notes to the condensed consolidated financial statements.

**ARBUTUS BIOPHARMA CORPORATION**
**Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)**  
(Unaudited)

(Expressed in thousands of U.S. dollars, except share and per share amounts)  
(Prepared in accordance with US GAAP)

	Three months ended		Six months ended	
	June 30,		June 30,	
	2018	2017	2018	2017
<b>Revenue (note 5)</b>	\$ 1,244	\$ 1,039	\$ 2,680	\$ 1,274
<b>Expenses</b>				
Research, development, collaborations and contracts	16,356	15,445	30,305	29,317
General and administrative	3,775	4,599	7,444	8,927
Depreciation of property and equipment	578	480	1,180	814
Site consolidation (note 9)	2,581	—	4,202	—
<b>Total expenses</b>	<b>23,290</b>	<b>20,524</b>	<b>43,131</b>	<b>39,058</b>
<b>Loss from operations</b>	<b>(22,046)</b>	<b>(19,485)</b>	<b>(40,451)</b>	<b>(37,784)</b>
<b>Other income (loss)</b>				
Interest income	805	390	1,563	758
Interest expense	—	(68)	(104)	(110)
Foreign exchange (loss) gain	(359)	798	(885)	1,225
Gain on investment (note 3)	24,884	—	24,884	—
Decrease (increase) in fair value of warrant liability	—	—	—	(22)
Decrease (increase) in fair value of contingent consideration (note 10)	(193)	110	655	(949)
<b>Total other income (loss)</b>	<b>25,137</b>	<b>1,230</b>	<b>26,113</b>	<b>902</b>
<b>Net income (loss)</b>	<b>\$ 3,091</b>	<b>\$ (18,255)</b>	<b>\$ (14,338)</b>	<b>\$ (36,882)</b>
Items applicable to preferred shares:				
Accrual of coupon on convertible preferred shares	(2,541)	—	(4,877)	—
<b>Net income (loss) attributable to common shares</b>	<b>\$ 550</b>	<b>\$ (18,255)</b>	<b>\$ (19,215)</b>	<b>\$ (36,882)</b>
Net income (loss) attributable to common shareholders, per share				
Basic	\$ 0.01	\$ (0.33)	\$ (0.35)	\$ (0.68)
Diluted	\$ 0.01	\$ (0.33)	\$ (0.35)	\$ (0.68)
Weighted average number of common shares				
Basic	55,211,294	54,647,944	55,149,674	54,478,221
Diluted	56,487,220	54,647,944	55,149,674	54,478,221

See accompanying notes to the condensed consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Condensed Consolidated Statement of Stockholders' Equity  
(Unaudited)

(Expressed in thousands of U.S. dollars, except share and per share amounts)  
(Prepared in accordance with US GAAP)

	Convertible Preferred Shares		Common Shares				Accumulated other comprehensive loss	Total stockholders' equity
	Number of shares	Share capital	Number of shares	Share capital	Additional paid-in capital	Deficit		
<b>December 31, 2017</b>	<b>500,000</b>	<b>\$ 49,780</b>	<b>55,060,662</b>	<b>\$ 876,108</b>	<b>\$ 42,840</b>	<b>\$ (738,070)</b>	<b>\$ (48,185)</b>	<b>\$ 182,473</b>
Issuance of Preferred Shares, net of issuance cost of \$135	664,000	66,265						66,265
Accrual of coupon on Preferred Shares (note 6)		4,877				(4,877)		—
Stock-based compensation					3,372			3,372
Certain fair value adjustments to liability stock option awards					(538)			(538)
Issuance of common shares pursuant to exercise of options			264,588	2,083	(1,245)			838
Net loss						(14,338)		(14,338)
<b>Balance, June 30, 2018</b>	<b>1,164,000</b>	<b>\$ 120,922</b>	<b>55,325,250</b>	<b>\$ 878,191</b>	<b>\$ 44,429</b>	<b>\$ (757,285)</b>	<b>\$ (48,185)</b>	<b>\$ 238,072</b>

See accompanying notes to the condensed consolidated financial statements.

**ARBUTUS BIOPHARMA CORPORATION**
**Condensed Consolidated Statements of Cash Flow**  
(Unaudited)

(Expressed in thousands of U.S. dollars)  
(Prepared in accordance with US GAAP)

	Three months ended		Six months ended	
	June 30,		June 30,	
	2018	2017	2018	2017
<b>OPERATING ACTIVITIES</b>				
Net income (loss) for the period	\$ 3,091	\$ (18,255)	\$ (14,338)	\$ (36,882)
Items not involving cash:				
Depreciation of property and equipment	578	480	1,180	814
Stock-based compensation - research, development, collaborations and contract expenses	1,867	3,055	2,650	5,678
Stock-based compensation - general and administrative expenses	794	2,048	966	3,929
Unrealized foreign exchange (gains) losses	361	(824)	926	(1,250)
Change in fair value of warrant liability	—	—	—	22
Change in fair value of contingent consideration	193	(110)	(655)	949
Site consolidation non-cash portion	395	—	395	—
Gain on equity investment	(24,884)	—	(24,884)	—
Net change in non-cash operating items:				
Accounts receivable	(603)	6,691	(920)	(914)
Accrued revenue	128	—	128	—
Investment tax credits receivable	—	294	(2)	279
Prepaid expenses and other assets	222	(9)	909	(273)
Accounts payable and accrued liabilities	921	2,205	(3,266)	(1,708)
Deferred revenue	(746)	(653)	(1,768)	6,739
Site consolidation accrual	61	—	1,090	—
<b>Net cash used in operating activities</b>	<b>(17,622)</b>	<b>(5,078)</b>	<b>(37,589)</b>	<b>(22,617)</b>
<b>INVESTING ACTIVITIES</b>				
Disposition (acquisition) of short and long-term investments, net	15,403	1,731	(60,015)	28,349
Proceeds from sale of property and equipment	2	—	2	—
Acquisition of property and equipment	(425)	(3,121)	(673)	(6,539)
<b>Net cash provided by (used) in investing activities</b>	<b>14,980</b>	<b>(1,390)</b>	<b>(60,686)</b>	<b>21,810</b>
<b>FINANCING ACTIVITIES</b>				
Promissory note repayment (note 8)	—	—	(12,001)	—
Proceeds from sale of Series A Preferred Shares, net of issuance costs	—	—	66,265	—
Issuance of common shares pursuant to exercise of options	735	4	838	5
Issuance of common shares pursuant to exercise of warrants	—	—	—	353
<b>Net cash provided by financing activities</b>	<b>735</b>	<b>4</b>	<b>55,102</b>	<b>358</b>
Effect of foreign exchange rate changes on cash and cash equivalents	(361)	825	(926)	1,248
<b>(Decrease) Increase in cash and cash equivalents</b>	<b>(2,268)</b>	<b>(5,639)</b>	<b>(44,099)</b>	<b>799</b>
Cash and cash equivalents, beginning of period	12,461	29,851	54,292	23,413
<b>Cash and cash equivalents, end of period</b>	<b>\$ 10,193</b>	<b>\$ 24,212</b>	<b>\$ 10,193</b>	<b>\$ 24,212</b>
<b>Supplemental cash flow information</b>				
Non-cash transactions:				
Investment tax credit received	\$ —	\$ 108	\$ —	\$ 108
Acquired property and equipment in trade payables	\$ —	\$ 72	\$ —	\$ 72
Preferred shares dividends accrued	\$ 2,541	\$ —	\$ 4,877	\$ —

See accompanying notes to the condensed consolidated financial statements.

**ARBUTUS BIOPHARMA CORPORATION**

**Notes to Condensed 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"). To pursue its strategy of developing a curative combination regimen, the Company has assembled a pipeline of multiple drug candidates with differing and complementary mechanisms of action targeting HBV.

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***

These unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles of the United States of America ("U.S. GAAP") for interim financial statements and accordingly, do not include all disclosures required for annual financial statements. These statements should be read in conjunction with the Company's audited consolidated financial statements and notes thereto for the year ended December 31, 2017 and included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017. The unaudited condensed consolidated financial statements reflect, in the opinion of management, all adjustments and reclassifications necessary to present fairly the financial position, results of operations and cash flows at June 30, 2018 and for all periods presented. The results of operations for the three and six months ended June 30, 2018 and June 30, 2017, respectively, are not necessarily indicative of the results for the full year. These unaudited condensed consolidated financial statements follow the same significant accounting policies as those described in the notes to the audited consolidated financial statements of the Company for the year ended December 31, 2017, except as described below.

***Principles of Consolidation***

These unaudited condensed consolidated financial statements include the accounts of the Company and its two wholly-owned subsidiaries, Arbutus Biopharma Inc. ("Arbutus Inc.") and Protiva Biotherapeutics Inc. ("Protiva"). On January 1, 2018, Protiva was amalgamated with Arbutus Biopharma Corporation. All intercompany transactions and balances have been eliminated on consolidation.

***Income or loss per share***

The Company follows the two-class method when computing net loss attributable to common shareholders per share as the Company has issued Preferred Shares (note 6) that meet the definition of participating securities. The Preferred Shares entitle the holders to participate in dividends but do not require the holders to participate in losses of the Company. Accordingly, if the Company reports a net loss attributable to common shareholders net losses are not allocated to Preferred Shareholders.



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 since the effect of the Company's stock options, liability-classified stock option awards, and warrants are anti-dilutive. During the six months ended June 30, 2018, potential common shares of 23,934,679, (six months ended June 30, 2017 – 5,848,138) consisting of the as-if converted number of Class A Preferred shares and stock options, were excluded from the calculation of loss per common share because their inclusion would be anti-dilutive. During the three months ended June 30, 2018, dilutive, in-the-money stock options, calculated using the treasury stock method, were included in the diluted income per share calculation but potential common shares of 17,136,957 (three months ended June 30, 2017 – nil) consisting of the as-if converted number of Class A Preferred shares were excluded from the calculation because their inclusion would be anti-dilutive.

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

	For the three months ended June 30,		For the six months ended June 30,	
	2018		2018	
<b>Numerator:</b>	Common Shares	Preferred Shares	Common Shares	Preferred Shares
Allocation of distributable earnings	\$ —	\$ 2,541	\$ —	\$ 4,877
Allocation of undistributed income (loss)	550	—	(19,215)	—
Allocation of income (loss) attributed to shareholders	\$ 550	\$ 2,541	\$ (19,215)	\$ 4,877
<b>Denominator:</b>				
Weighted average number of shares - basic	55,211,294	1,164,000	55,149,674	1,119,978
Weighted average number of shares - diluted	56,487,220	1,164,000	55,149,674	1,119,978
Basic net income (loss) attributable to shareholders per share	\$ 0.01	\$ 2.18	\$ (0.35)	\$ 4.35
Diluted net income (loss) attributable to shareholders per share	\$ 0.01	\$ 2.18	\$ (0.35)	\$ 4.35

#### *Fair value of financial instruments*

The Company measures certain financial instruments and other items at fair value.

To determine the fair value, the Company uses 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.

The following table presents 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	June 30, 2018
<b>Assets</b>				
Cash and cash equivalents	\$ 10,193	—	—	\$ 10,193
Short-term investments	144,676	—	—	144,676
<b>Total</b>	<b>\$ 154,869</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 154,869</b>
<b>Liabilities</b>				
Liability-classified options	—	—	\$ 2,092	\$ 2,092
Contingent consideration	—	—	9,769	9,769
<b>Total</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 11,861</b>	<b>\$ 11,861</b>

	Level 1	Level 2	Level 3	December 31, 2017
<b>Assets</b>				
Cash and cash equivalents	\$ 54,292	—	—	\$ 54,292
Short-term investments	72,060	—	—	72,060
Restricted cash	12,601	—	—	12,601
<b>Total</b>	<b>\$ 138,953</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 138,953</b>
<b>Liabilities</b>				
Liability-classified options	—	—	\$ 1,239	\$ 1,239
Contingent consideration	—	—	10,424	10,424
<b>Total</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 11,663</b>	<b>\$ 11,663</b>

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

	Liability at beginning of the period	Increase in fair value of liability	Liability at end of the period
Six months ended June 30, 2017	\$ 553	\$ 430	\$ 983
Six months ended June 30, 2018	\$ 1,239	\$ 853	\$ 2,092

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

	Liability at beginning of the period	Increase in fair value of Contingent Consideration	Liability at end of the period
Six months ended June 30, 2017	\$ 9,065	\$ 949	\$ 10,014
Six months ended June 30, 2018	\$ 10,424	\$ (655)	\$ 9,769

### **Equity method investment**

We account for our investment in associated companies in accordance with ASC 323, *Investments - Equity Method and Joint Ventures*. In accordance with ASC 323, associated companies are accounted for as equity method investments. Results of associated companies are presented on a one-line basis. Investments in, and advances to, associated companies are presented on a one-line basis in the caption "Investment in Genevant" in our Consolidated Balance Sheet, net of allowance for losses, which represents our best estimate of probable losses inherent in such assets. The Company's proportionate share of the associated company's net income or loss is presented on a one-line basis in the caption "Gain (loss) on Investment in our Consolidated Statement of Operations and Comprehensive Loss. Transactions between the Company and the associated company are eliminated on a basis proportional to the Company's ownership interest. Financial results of Genevant are recorded on a one-quarter lag basis.

### **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.

The new revenue standard (Accounting Standards Codification "ASC" 606) became effective for the Company on January 1, 2018, and was adopted using the modified retrospective method under which previously presented financial statements are not restated and the cumulative effect of adopting the new revenue standard on contracts in process is recognized by an adjustment to retained earnings at the effective date. The adoption of the new revenue standard did not change the Company's recognized revenue under its ongoing significant collaborative research and license agreements and no cumulative effect adjustment was required.

The new guidance in ASC 606 requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers under a five-step model: (i) identify contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when or as a performance obligation is satisfied.

The Company generates revenue primarily through collaboration agreements. Such agreements may require the Company to deliver various rights and/or services, including intellectual property rights or licenses and research and development services. Under such collaboration agreements, the Company is generally eligible to receive non-refundable upfront payments, funding for research and development services, milestone payments, and royalties.

In contracts where the Company has more than one performance obligation to provide its customer with goods or services, each performance obligation is evaluated to determine whether it is distinct based on whether (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available and (ii) the good or service is separately identifiable from other promises in the contract. The consideration under the contract is then allocated between the distinct performance obligations based on their respective relative stand-alone selling prices. The estimated stand-alone selling price of each deliverable reflects the Company's best estimate of what the selling price would be if the deliverable was regularly sold on a stand-alone basis and is determined by reference to market rates for the good or service when sold to others or by using an adjusted market assessment approach if selling price on a stand-alone basis is not available.

The consideration allocated to each distinct performance obligation is recognized as revenue when control is transferred to the customer for the related goods or services. Consideration associated with at-risk substantive performance milestones, including sales-based milestones, is recognized as revenue when it is probable that a significant reversal of the cumulative revenue recognized will not occur. Sales-based royalties received in connection with licenses of intellectual property are subject to a specific exception in the revenue standards, whereby the consideration is not included in the transaction price and recognized in revenue until the customer's subsequent sales or usages occur.

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 No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The new standard clarifies certain aspects of the statement of cash flows, and aims to reduce diversity in practice regarding how certain transactions are classified in the statement of cash flows. This standard was effective January 1, 2018. The Company adopted ASU No. 2016-15 in the first quarter of 2018. The adoption of this guidance did not have a material impact on the Company's financial position and results of operations.

In October 2016 the FASB issued ASU No. 2016-16, Income Taxes (Topic 740): Intra-Entity Transfer of Assets Other Than Inventory. This new standard eliminates the deferral of the tax effects of intra-entity asset transfers other than inventory. As a result, the income tax consequences from the intra-entity transfer of an asset other than inventory and associated changes to deferred taxes will be recognized when the transfer occurs. The Company adopted ASU No. 2016-16 in the first quarter of 2018. The adoption of this guidance did not have a material impact on the Company's financial position and results of operations.

In November 2016, the FASB issued a new standard that clarifies how entities should present restricted cash in the statement of cash flows. Under the new standard, changes in total cash, inclusive of restricted cash, should be reflected in the statement of cash flows. As a result, transfers between cash and restricted cash will no longer be reflected as activity within the statement of cash flows. The Company adopted the new standard on January 1, 2018. The adoption of this standard did not have a material impact on the Company's condensed consolidated statements of cash flows.

In June 2018, the FASB issued ASU 2018-07, Compensation-Stock Compensation (Topic 718), Improvements to Nonemployee Share-Based Payment Accounting. The amendments in this Update provide guidance about aligning nonemployee and employee share-based payment accounting. The amendments in this Update are effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2018. The Company early adopted the new standard as of January 1, 2018. The adoption of this standard did not have a material impact on the Company's financial position and results of operations.

### **3. Equity method investment**

On April 11, 2018, the Company entered into an agreement with Roivant Sciences ("Roivant") to launch Genevant Sciences ("Genevant"), a jointly-owned company focused on the discovery, development, and commercialization of a broad range of RNA-based therapeutics enabled by Arbutus' proprietary lipid nanoparticle ("LNP") and ligand conjugate delivery technologies.

Under the terms of the agreement, the Company has contributed a license to the delivery technologies, and fixed assets with a carrying value of \$600,000. The contributed license provides Genevant with exclusive rights to the LNP and ligand conjugate delivery platforms for RNA-based applications outside of HBV. Roivant contributed \$37,500,000 in transaction-related seed capital for Genevant, consisting of an initial capital contribution of \$22,500,000 and a subsequent investment of \$15,000,000 at a pre-determined, stepped-up valuation. The Company retains all rights to the LNP and conjugate delivery platforms for HBV, and is entitled to a tiered low single-digit royalty from Genevant on future sales of products enabled by those delivery platforms. The Company also retains the entirety of its royalty entitlement on the commercialization of Alnylam's patisiran.

The Company determined that since the agreement stipulates that significant decisions relating to the management of Genevant must be shared between the Principal Shareholders (being the Company and Roivant), the Company does not control Genevant but does exercise significant influence over it and, will therefore, account for its investment in Genevant using the equity method. On April 11, 2018, the Company and Roivant each received a 50% ownership interest in Genevant. As a result of the subsequent investment in Genevant completed in June 2018 by Roivant and other parties, the Company owned 41% of the common equity of Genevant as at June 30, 2018.

The Company allocated \$1,893,000 of goodwill to Genevant based upon the relative fair value of Genevant to the Company as at April 11, 2018.

As a result of the contribution of assets and goodwill to Genevant in exchange for its equity interest, the Company recorded a gain of \$24,884,000 in the Consolidated Statement of Operations and Comprehensive Loss. The fair value of equity in Genevant received by the Company was based on a valuation performed by external valuation experts.

The following table illustrates the changes in the Equity investment balance and the Gain on investment recorded in the Consolidated Statement of Operations and Comprehensive Income (Loss) for the three months ended June 30, 2018 in thousands:

	Three months ended June 30, 2018	
	Equity investment	Gain on investment
Investment in Genevant	\$ 27,377	\$ 27,377
Net book value of fixed assets transferred to Genevant	—	(600)
Goodwill allocated to Genevant	—	(1,893)
Stock based compensation expense	69	—
As at June 30, 2018	\$ 27,446	\$ 24,884

#### 4. Intangible assets and goodwill

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 impairment, in which case earlier testing is performed.

The following table summarizes the carrying values of the intangible assets as at June 30, 2018:

	June 30, 2018	December 31, 2017
IPR&D – Immune Modulators	\$ —	\$ —
IPR&D – Antigen Inhibitors	14,811	14,811
IPR&D – cccDNA Sterilizers	43,836	43,836
<b>Total Intangible Assets</b>	<b>\$ 58,647</b>	<b>\$ 58,647</b>

#### Impairment evaluation

At June 30, 2018, the Company did not identify any indicators of impairment. No impairment charge on intangible assets or goodwill was recorded for the period ended June 30, 2018 (three and six months ended June 30, 2017 - nil).

In the three months ended June 30, 2018, the Company allocated \$1,893,000 of goodwill to its investment in Genevant based upon the relative fair value of Genevant to the Company as at April 11, 2018 (see note 3 above), as a result of which the carrying value of goodwill decreased by this same amount.

## 5. Collaborations, contracts and licensing agreements

The following table set forth revenue recognized under collaborations, contracts and licensing agreements, in thousands:

	Three months ended June 30,			Six months ended June 30,		
	2018	2017		2018	2017	
Alexion (a)	\$ —	\$ 318	\$	\$ —	\$ 336	
Gritstone (b)	937	—		2,087	—	
Department of Defense ("DoD") (c)	263	—		263	—	
Other milestone and royalty payments	44	721		330	938	
<b>Total revenue</b>	<b>\$ 1,244</b>	<b>\$ 1,039</b>	<b>\$</b>	<b>\$ 2,680</b>	<b>\$ 1,274</b>	

The following table sets forth deferred collaborations and contracts revenue:

	June 30, 2018	December 31, 2017
Gritstone (b)	\$ 974	\$ 2,727
Department of Defense ("DoD") (c)	—	15
Deferred revenue, current portion	974	2,742
<b>Total deferred revenue</b>	<b>\$ 974</b>	<b>\$ 2,742</b>

### (a) License Agreement with Alexion Pharmaceuticals, Inc. ("Alexion")

On March 16, 2017, the Company signed a license agreement with Alexion that entitles Alexion to research, develop, manufacture, and commercialize products with the Company's lipid nanoparticle ("LNP") technology in their single orphan disease target. In consideration for the rights granted under the agreement, the Company received a \$7,500,000 non-refundable upfront cash payment, as well as payments for services provided. This upfront payment was amortized over the period of expected benefit.

On July 27, 2017, the Company received notice of termination from Alexion for the Company's LNP license agreement. The termination was driven by a strategic review of Alexion's business and research and development portfolio, which included a decision to discontinue development of mRNA therapeutics. The \$7,500,000 upfront payment received in March 2017 is non-refundable, and the Company recorded the remaining deferred revenue balance, as well as any revenue and costs related to closeout procedures in the statement of operations and comprehensive loss for the period ended September 30, 2017.

### (b) License agreement with Gritstone

On October 16, 2017, the Company entered into a license agreement with Gritstone that entitles Gritstone to research, develop, manufacture and commercialize products with the Company's LNP technology. The Company received an upfront payment in November 2017, and is eligible to receive future potential payments including research services, development and commercial milestone payments and royalty payments on future product sales. As a result of the Company's agreement with Genevant (see note 3 for details), from April 11, 2018 going forward Genevant is entitled to 50% of the revenues earned by the Company from Gritstone.

The Company determined the promised goods and services under the Agreements included the rights and license granted, involvement in the joint steering committee, and other services provided, as determined under the research plan. The license and involvement in the joint steering committee have been determined by the Company to be distinct. Therefore, these promised goods and services are treated as one performance obligation and recognized as revenue over the performance period as the Company transfers the technical "know-how" for the customized formulations.

The Company has determined that other materials and services provided have standalone value. The relative fair values are estimated upon the execution of each activity and charged at rates comparable to market with embedded margins on each service activity.

**(c) Department of Defense ("DoD")**

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. The contract work completed in 2015. Contract close out procedures were finalized in the three months ended June 30, 2018 and resulted in additional revenue of \$263,000 being recognized.

**6. Share capital**

**Series A participating convertible preferred shares ("Preferred Shares")**

On October 2, 2017, the Company announced that it entered into a subscription agreement with Roivant for the sale of Preferred Shares to Roivant for gross proceeds of \$116,400,000. The Preferred Shares are non-voting and are convertible into common shares at a conversion price of \$7.13 per share. The purchase price for the Preferred Shares plus an amount equal to 8.75% per annum, compounded annually, will be subject to mandatory conversion into 22,589,601 common shares on October 16, 2021 (subject to limited exceptions in the event of certain fundamental corporate transactions relating to Arbutus' capital structure or assets, which would permit earlier conversion at Roivant's option). After conversion of the Preferred Shares into common shares, based on the number of common shares outstanding on October 2, 2017, Roivant would hold 49.90% of the Company's common shares. Roivant has agreed to a four year lock-up period for this investment and its existing holdings in Arbutus. Roivant has also agreed to a four year standstill whereby Roivant will not acquire greater than 49.99% of the Company's common shares or securities convertible into common shares.

The initial investment of \$50,000,000 closed on October 16, 2017, and the remaining amount of \$66,400,000 closed on January 12, 2018 following regulatory and shareholder approvals.

The Company records the Preferred Shares wholly as equity under ASC 480, with no bifurcation of conversion feature from the host contract, given that the Preferred Shares cannot be cash settled and the redemption features are within the Company's control, which include a fixed conversion ratio with predetermined timing and proceeds. The Company accrues for the 8.75% per annum compounding coupon at each reporting period end date as an increase to preferred share capital, and an increase to deficit (see Condensed Consolidated Statement of Stockholders' Equity).

**7. Accounts payable and accrued liabilities**

Accounts payable and accrued liabilities are comprised of the following, in thousands:

	June 30, 2018	December 31, 2017
Trade accounts payable	\$ 3,208	\$ 1,987
Research and development accruals	3,369	4,937
Professional fee accruals	393	429
Deferred lease inducements	13	42
Payroll accruals	342	2,893
Other accrued liabilities	60	358
	<b>\$ 7,385</b>	<b>\$ 10,646</b>

## 8. Loan payable

On December 27, 2016, the Company obtained a three-year 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 accrued interest daily. The variable component is the one-month London Interbank Offered Rate (LIBOR), and 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 was due on December 27, 2019.

The loan was secured by the Company's cash of \$12,601,000, that 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).

In March 2018, the Company repaid the loan and accrued interest in full, resulting in the release of \$12,601,000 from restricted cash to short-term investments on the Company's balance sheet.

## 9. Site consolidation

On February 8, 2018, the Company announced a site consolidation and organizational restructuring to align its HBV business in Warminster, PA, by reducing its global workforce by approximately 35% and by closing its Burnaby facility. In March 2018, the Company began executing its site consolidation plan and began to incur related costs.

The Company estimates that the total expenses to complete the site consolidation will be approximately \$5,000,000. Included in the site consolidation plan is the payment of one-time employee termination benefits, employee relocation costs, and site closure costs, which were primarily paid in cash in the second quarter of 2018. In addition, as of June 30, 2018 the Company has ceased to use its Burnaby facility. The Company has entered into a sublease with its equity investee, Genevant (refer to note 3) for a portion of its facility and will attempt to further sublease the remaining space. The Company does not expect the subleasing income to completely cover the costs under the head lease, to which the Company remains the primary obligor. Therefore, the Company has recognized the remaining committed cost, less sublease income currently under contract, in site consolidation expenses in the income statement during the three months ended June 30, 2018.

The Company accounts for site consolidation expense in accordance with ASC 420, *Exit or Disposal Cost Obligations*. ASC 420 specifies that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred, except for a liability where employees are required to render service until they are terminated in order to receive termination benefits and will be retained to render service beyond the minimum retention period. A liability for such one-time termination benefits shall be measured initially at the communication date based on the fair value of the liability as of the termination date and recognized rateably over the future service period.

The following table shows expenses recorded in the three and six months ended June 30, 2018 and the liability as at June 30, 2018, in thousands:

Description of expense	Jan 1, 2018 - March 31, 2018	April 1, 2018 - June 30, 2018	Jan 1, 2018 - June 30, 2018
Employee severance	\$ 1,381	\$ 1,285	\$ 2,666
Employee relocation	240	295	535
Lease and facility	—	1,001	1,001
<b>Total site consolidation expense</b>	<b>1,621</b>	<b>2,581</b>	<b>4,202</b>
Amounts paid during the period	592	2,520	3,112
<b>Accrued at period end</b>	<b>\$ 1,029</b>	<b>\$ 61</b>	<b>\$ 1,090</b>



## 10. Contingencies and commitments

### 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\$9,256,000). As at June 30, 2018, a cumulative contribution of \$2,871,000 (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 are 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 three months ended June 30, 2018, the Company earned royalties on Marqibo sales in the amount of \$41,000 (June 30, 2017 – \$65,000) (see note 5(d)), resulting in \$1,000 being recorded by the Company as royalty payable to TPC (June 30, 2017 - \$3,000). The cumulative amount paid or accrued up to June 30, 2018 was \$24,000, therefore the remaining contingent amount due to TPC is \$2,782,000 (C\$3,702,000).

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

Certain early work on lipid nanoparticle delivery systems and related inventions was undertaken at the Company and assigned to the University of British Columbia (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. Alnylam has in turn sublicensed back to the Company under the licensed UBC patents for discovery, development and commercialization of siRNA products. Certain sublicenses to other parties were also granted.

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 filed its Statement of Defense to UBC's Statement of Claims, as well as filed a Counterclaim involving a patent application that Arbutus alleges UBC wrongly licensed to a third party rather than to Arbutus. The proceedings have been divided into three phases, with a first hearing that took place in June 2017. The arbitrator determined in the first phase which agreements are sublicense agreements within UBC's claim, and which are not. No finding was made as to whether any licensing fees are due to UBC under these agreements; this will be the subject of the second phase of arbitration. A schedule for the remaining phases has not yet been set. 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. The Company continues to dispute UBC's allegations, and seeks license payments for said application, and an exclusive worldwide license to said application. 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. Costs related to the arbitration are recorded by the Company as incurred.

### Contingent consideration from Arbutus Inc. acquisition of Enantigen and License Agreements between Enantigen and the Baruch S. Blumberg Institute ("Blumberg") and Drexel University ("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 the Company, following the Company's merger with Arbutus Inc.

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 Enantigen's two programs in pre-clinical development related to HBV therapies. The first triggering event, which would trigger a \$3,000,000 milestone, is the enrollment of the first patient in a Phase 1b clinical trial in HBV patients.

The regulatory, development and sales milestone payments had an initial estimated fair value of approximately \$6,727,000 as at the date of acquisition of Arbutus Inc., and have been treated as contingent consideration payable in the purchase price allocation, 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 market comparative data.

Contingent consideration is recorded as a financial liability, and measured at its fair value at each reporting date, based on an updated consideration of the probability-weighted assessment of expected milestone timing, with any changes in fair value from the previous reporting date recorded in the statement of operations and comprehensive loss (see note 2).

#### **Blumberg and Drexel**

In February 2014, Arbutus Inc. entered into a license agreement with Blumberg and Drexel that granted Arbutus Inc. 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 is required to pay up to \$1,200,000 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 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.

#### **11. Concentrations of 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 on a timely basis. 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 June 30, 2018 was the accounts receivable balance of \$1,322,000 (December 31, 2017 - \$402,000).

All accounts receivable balances were current at June 30, 2018 and at December 31, 2017.

#### **12. Related Party Transactions**

During 2018, the Company purchased certain research and development services from Roivant, which are billed at agreed hourly rates and reflective of market rates for such services. The total cost of these services was \$0.6 million for the three and six months ended June 30, 2018.

During 2018, the Company purchased certain research and development services from Genevant. These services are billed at agreed hourly rates and reflective of market rates for such services. The total cost of these services was \$0.1 million for the three and six months ended June 30, 2018. Conversely, Genevant purchased certain administrative and transitional services from the Company and has a sublease for 17,900 square feet in the Company's Burnaby facility. The total income for these services was \$0.2 million for the six months ended June 30, 2018.

## **ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

*You should read the following discussion and analysis by our management of our financial position and results of operations in conjunction with our audited consolidated financial statements and related notes thereto included as part of our Annual Report on Form 10-K for the year ended December 31, 2017 and our unaudited condensed consolidated financial statements for the three and six month periods ended June 30, 2018. Our consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles and are presented in U.S. dollars.*

### **FORWARD-LOOKING STATEMENTS**

The information in this report 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 report include statements about our strategy, future operations, clinical trials, prospects and the plans of management; the discovery, development and commercialization of a cure for HBV; our beliefs and development path and strategy to achieve a cure for HBV; obtaining necessary regulatory approvals; obtaining adequate financing through a combination of financing activities and operations; the payment of one-time employee termination benefits, employee relocation costs, and site closure costs, totalling approximately

\$5,000,000; the expected timing of certain triggering events for payments by Arbutus Inc. related to Enantigen's programs; the possibility of receiving total milestone payments of up to \$18,000,000 on Alocrest and Brakiva; the potential of our LNP platform to provide royalties and significant additional capital to fund development of our many HBV assets; the potential of our drug candidates to improve upon the standard of care and contribute to curative combination treatment regimens; royalty entitlements for an LNP platform drug that may be approved in the second half of 2018; developing a suite of products that intervene at different points in the viral life cycle, with the potential to reactivate the host immune system; using preclinical results to adaptively design clinical studies for additional cohorts of patients, testing the combination and the duration of therapy; selecting combination therapy regimens and treatment durations to conduct Phase III clinical trials intended to ultimately support regulatory filings for marketing approval; expanding our HBV drug candidate pipeline through internal development, acquisitions and in-licenses; interim results from a 30-week Phase II study of ARB-1467 in combination with tenofovir and pegylated interferon expected in the second half of 2018, followed by final results in 2019; continuing to focus on rapidly advancing AB-506 into clinical testing before proceeding with additional clinical evaluation of AB-423; dosing of AB-506 in HBV patients later this year, with topline results by mid 2019; the potential of AB-506 to be a 'best-in-class' capsid inhibitor with once-daily dosing; an IND (or equivalent) filing for AB-452 in the third quarter 2018, with subject dosing to follow in the fourth quarter 2018, and the potential for once-daily oral dosing; an IND/CTA filing in 2019 for AB-729; first regulatory approval for patisiran in the second half of 2018; possible low to mid-single-digit royalty payments escalating based on sales performance as Alnylam's LNP-enabled products, including patisiran, are commercialized; payments from the Gritstone licensing agreement; the expectation for organizational changes to result in increased efficiency, a more flexible variable cost structure, and additional preservation of our cash reserves; the belief that current legal proceedings will not have a material adverse effect on our consolidated results of operations, cash flows, or financial condition; the expected return from strategic alliances, licensing agreements, and research collaborations; statements with respect to revenue and expense fluctuation and guidance; having sufficient cash resources to fund our operations for at least the next 12 months; obtaining 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; and the quantum and timing of potential funding.

With respect to the forward-looking statements contained in this report, we have made numerous assumptions regarding, among other things: LNP's status as a leading RNAi delivery technology; our research and development capabilities and resources; the effectiveness of our products as a treatment for chronic HBV infection or other diseases; continued positive results from pre-clinical and clinical trials; the timing and quantum of payments to be received under contracts with our partners; and our financial position and its ability to execute our business strategy. While we consider 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 risk factors discussed in this report and the risk factors discussed in our Annual Report on Form 10-K for the year ended December 31, 2017, 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. All forward-looking statements herein are qualified in their entirety by this cautionary statement, and we explicitly disclaim any obligation to revise or update any such forward-looking statements or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, except as required by law.

**OVERVIEW**

Arbutus Biopharma Corporation ("Arbutus", the "Company", "we", "us", and "our") is a publicly traded (Nasdaq Global Market: ABUS) industry-leading therapeutic solutions company dedicated to discovering, developing, and commercializing a cure for patients suffering from chronic Hepatitis B Virus (HBV) infection. HBV represents a significant, global unmet medical need and is the cause of the most common serious liver infection in the world. The World Health Organization (WHO) estimates that more than 257 million people worldwide are chronically infected (WHO, 2017), and other estimates suggest this could include approximately 2 million people in the United States (Kowdley et al., 2012).

To pursue our strategy of developing a curative combination regimen for chronic HBV, we have assembled a robust pipeline consisting of multiple drug candidates with differing but complementary mechanisms of action (MOA), each of which have the potential to improve upon the standard of care and contribute to a curative combination treatment regimen. Our pipeline includes agents that have the potential to form a proprietary, orally administered, combination therapy.

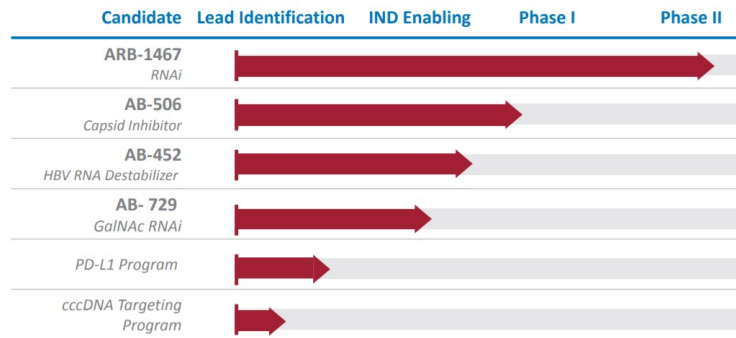
In addition to our drug pipeline focused on HBV, we have additional assets that have the potential to provide value to Arbutus. The first is our 41% equity ownership interest in Genevant Sciences (Genevant), a newly created company to which we have licensed Arbutus' lipid nanoparticle delivery (LNP) platform and conjugate delivery platform (the Delivery Platforms) for all applications except HBV. Secondly, we retain a royalty entitlement on Patisiran, a drug being developed by Alnylam that incorporates our LNP technology and may be approved in the second half of 2018. This royalty entitlement has the potential to provide an active royalty stream or to be otherwise monetized in full or in part. These assets have the potential to provide significant additional non-dilutive capital to fund development of our pipeline of HBV assets.

**HBV Product Pipeline**

Our product pipeline is entirely 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 reactivate the host immune system. We are conducting clinical and preclinical combination studies to evaluate combinations of our proprietary pipeline candidates with HBV SOC therapies and with our own proprietary assets. We expect to use the results from these studies to adaptively design additional clinical studies to test the combination and the duration of therapy in patients. We plan to continue this process to identify a regimen to conduct Phase III clinical trials intended to ultimately support regulatory filings for marketing approval.

Our broad pipeline of HBV product candidates includes ARB-1467 (RNAi); AB-506 (capsid inhibitor); AB-452 (HBV RNA destabilizer); AB-729 (GalNAc RNAi), and multiple other preclinical agents in development with novel mechanisms of action (MOA).

**STAGE OF DEVELOPMENT**



We will continue to expand our HBV pipeline through internal discovery and 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.

#### **Agents for All-oral combination therapy**

##### ***Capsid Inhibitors (AB-506 & AB-423)***

HBV core protein, or capsid, is required for viral replication and core protein may have additional roles in cccDNA function. The current standard of care 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 HBV to replicate is impaired, resulting in reduced cccDNA.

AB-423 was our first-generation capsid inhibitor candidate, which was evaluated in a Phase I SAD and Multiple Ascending Dose (MAD) trial designed to assess the safety, tolerability, and pharmacokinetics (PK) of oral administration of the product in healthy volunteers. AB-423 was well-tolerated with no serious adverse events following single doses up to 800 mg. Multiple doses up to 400 mg twice daily were also well tolerated.

In addition to AB-423, our capsid inhibitor discovery effort generated promising back-up compounds in 2017, which led to the nomination of a next-generation capsid inhibitor AB-506 for Investigational New Drug (IND)/Clinical Trial Authorization (CTA)-enabling studies. We have received regulatory approval of our submitted CTA in Q2 2018, and have initiated dosing of healthy volunteers, to be followed by dosing in patients in the second half of this year. AB-506 is an orally administered, highly selective capsid inhibitor that has shown striking potency and improved PK in preclinical studies. We presented these preclinical data at AASLD annual meeting in October 2017 in a presentation titled, "Antiviral Characterization of a Next Generation Chemical Series of HBV Capsid Inhibitors In Vitro and In Vivo," which showed potent inhibition of HBV replication and pgRNA encapsidation, an accelerated rate of capsid assembly, and binding to the HBV core protein at the dimer:dimer interface that indicates improved target engagement compared to first generation capsid inhibitors. AB-506 has the potential to be a 'best-in-class' capsid inhibitor based on its favorable drug-like properties and potent inhibition of HBV replication. This molecule has the potential for once-daily oral dosing, making it an ideal candidate for inclusion in a combination regimen.

We will continue to focus on rapidly advancing AB-506 through clinical testing before proceeding with additional clinical evaluation of AB-423.

##### ***HBV RNA Destabilizer (AB-452)***

Our most advanced preclinical program is an HBV RNA Destabilizer, AB-452 (formerly known as our oral HBsAg inhibitor program), which has novel activity in destabilizing HBV RNA, broad activity against HBV RNAs, and reduces HBsAg. This molecule has the potential for once daily, oral dosing. We presented preclinical data at AASLD annual meeting in October 2017 in a presentation titled, "Identification and Characterization of AB-452, a Potent Small Molecule HBV RNA Destabilizer In Vitro and In Vivo," which showed that AB-452 has shown synergistic effects when combined with two of our proprietary HBV RNAi agents in vitro. In vivo, twice-a-day oral administration of AB-452 resulted in up to 1.4 log<sub>10</sub> reduction of serum HBsAg in a dose dependent manner and correlated well with liver HBV RNA levels. When combined, our capsid inhibitor AB-506 and HBV RNA destabilizer AB-452 show distinct but mechanistically compatible antiviral activities that suggest feasibility of inclusion in a clinical combination regimen. Pending successful completion of IND/CTA-enabling studies, this product candidate could be the subject of an IND/CTA filing in the third quarter of 2018.

#### **RNAi Agents**

Our RNA interference (RNAi) HBV candidates, ARB-1467 and AB-729, are designed to reduce Hepatitis B surface antigen (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.

### ***RNAi (ARB-1467)***

Our lead RNAi HBV candidate, ARB-1467, is a multi-component 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 lower the risk of developing antiviral resistance. ARB-1467 was evaluated in a Phase I Single Ascending Dose (SAD) trial designed to assess the safety, tolerability, and pharmacokinetics of intravenous administration of the product in healthy adult subjects. In the Phase I SAD study, dosing healthy volunteer subjects was well tolerated to a dose of 0.4 mg/kg but a maximum tolerated dose was not reached.

The Phase II trial was a multi-dose study in virally suppressed (NA therapy) patients with chronic HBV. The study enrolled 4 cohorts and explored two doses of ARB-1467 (0.2 and 0.4 mg/kg) at two dose frequencies (monthly and bi-weekly) in two patient populations (HBeAg-negative and positive patients). Cohorts 1, 2, and 4 enrolled HBeAg- patients and Cohort 3 enrolled HBeAg+ patients. The first three cohorts each enrolled eight subjects; six received three monthly doses of ARB-1467, and two received placebo. Cohort 4 enrolled twelve patients, all of whom received five bi-weekly doses of ARB-1467, followed by monthly dosing if pre-defined criteria were met. ARB-1467 was administered at 0.2 mg/kg in Cohort 1 and 0.4 mg/kg in Cohorts 2, 3, and 4. Overall, treatment was well tolerated across all cohorts (Cohorts 1, 2, 3, and 4).

Results from monthly doses in Cohorts 1, 2 and 3 demonstrated a significant reduction in serum HBsAg and a step-wise, additive reduction in serum HBsAg with each subsequent dose. The HBsAg reduction achieved after three monthly doses of 0.4mg/kg in Cohort 2 was greater than that seen at 0.2 mg/kg in Cohort 1, demonstrating a dose-response with repeat dosing. We observed no significant differences in serum HBsAg reductions between HBeAg-negative and HBeAg-positive patients. In Cohort 4, five doses of ARB-1467 were administered on a bi-weekly dosing schedule. Results after 5 doses of bi-weekly administration demonstrated a deeper reduction in HBsAg levels compared to the results observed during the monthly administration, with a mean reduction of 1.4 log<sub>10</sub> and a maximum reduction of 2.7 log<sub>10</sub>. Seven of the twelve patients met the predefined response criteria (a reduction greater than 1 log<sub>10</sub> and HBsAg levels < 1000 IU/ml) at or before day 71. Five of the seven patients who met the response criteria had their serum HBsAg reduced to low absolute levels (below 50 IU/mL).

We have initiated a triple combination study of our RNAi agent ARB-1467 with tenofovir (TDF) and pegylated interferon (PegIFN) therapy to determine if this regimen will result in patients reaching undetectable HBV DNA and HBsAg levels. The Phase II combination trial is a 30-week multi-dose study in 20 HBV DNA -positive, HBeAg-negative, treatment naïve, patients who will receive bi-weekly doses of ARB-1467 at 0.4 mg/kg and daily oral TDF doses for 30 weeks. Those patients who reach predetermined criteria 6 weeks will qualify for the addition of weekly PegIFN treatment, while continuing to receive bi-weekly doses of ARB-1467 and daily doses of TDF for the remaining 24 weeks. Patients will be followed for 24 weeks after the treatment period concludes. Interim on-treatment results from this trial are expected in the second half of 2018, followed by final results in 2019.

### ***GalNAc RNAi (AB-729)***

Early in 2018, we nominated for development a next-generation RNAi therapeutic, AB-729, targeted to hepatocytes using our novel covalently conjugated N-acetylgalactosamine (GalNAc) delivery technology to enable subcutaneous delivery. This is a promising new agent that acts on multiple HBV viral transcripts, enabling inhibition of viral replication and suppression of all viral antigens. AB-729 showed more durable in vivo preclinical activity than earlier-generation RNAi agents for the treatment of chronic HBV infection. We observed a significant dose response, and a stepwise reduction in viral proteins when multi-dosing. We have initiated IND/CTA enabling studies, and pending success of those studies, this product candidate could be the subject of an IND/CTA filing in the first half of 2019.

### **Additional 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 MOAs. We have ongoing discovery efforts focused on cccDNA targeting and checkpoint inhibition to identify novel drug candidates to complement our pipeline of agents to form an all-oral combination therapy.

### **Proprietary Delivery 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 have generated value from our LNP platform technology, which is well suited to deliver therapies based on RNAi, mRNA, and gene editing constructs. We have also developed a proprietary GalNAc conjugate technology to enable subcutaneous delivery of an RNAi therapeutic targeting HBsAg and/or other HBV targets.

In April 2018, we entered into an agreement with Roivant Sciences to launch Genevant Sciences, a jointly-owned company focused on the discovery, development, and commercialization of a broad range of RNA-based therapeutics enabled by our proprietary LNP and ligand conjugate delivery technologies (collectively, the Delivery Technologies) for all applications except HBV. See further discussion under Recent Developments below.

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 LNP platform. The broad applicability of this platform to RNAi development and clinically proven safety profile has established it as a leader in this new area of innovative medicine.

#### **Partner Programs**

##### ***Patisiran (ALN-TTR02)***

Alnylam Pharmaceuticals, Inc., or Alnylam (Nasdaq: ALNY), has a license to use our intellectual property to develop and commercialize products. Alnylam's patisiran (ALN-TTR02) program represents the most clinically advanced application of our LNP delivery technology, and results demonstrate that our LNP has been well tolerated and efficacy maintained with long-term (>36 months) treatment. Alnylam 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.

Patisiran is Alnylam's most clinically advanced RNAi therapeutic in development, targeting transthyretin (TTR) for the treatment of TTR-mediated amyloidosis (ATTR). In September 2017, Alnylam successfully completed its APOLLO Phase III clinical trial of LNP-enabled patisiran, which initiated in November 2013. Results showed that patisiran met its primary efficacy endpoint and all secondary endpoints in this trial. As a result, Alnylam completed a New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) and a Marketing Authorisation Application (MAA) to the European Medicines Agency (EMA) for patisiran. Alnylam has estimated that first regulatory approval may be obtained in the second half of 2018. We retain full rights to royalties on patisiran global sales and are entitled to low-to-mid single-digit royalty payments escalating based on sales performance as Alnylam's LNP-enabled products are commercialized. We could receive our first royalty payments in the second half of 2018, or seek to otherwise monetize all or part of this royalty stream as a source of non-dilutive cash.

##### ***Gritstone Oncology***

In October 2017, we entered into a license agreement with Gritstone Oncology (Gritstone) that granted them worldwide access to our portfolio of proprietary and clinically validated LNP products and associated intellectual property to deliver Gritstone's RNA-based neoantigen immunotherapy products. Gritstone paid us an upfront payment and agreed to future payments for achievement of development, regulatory, and commercial milestones as well as royalties, and reimbursements for conducting technology development, manufacturing and regulatory support for Gritstone's product candidates. Genevant will be entitled to 50% of any milestones and royalties that may be payable by Gritstone.



## **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 on sales of Marqibo.

## **Recent Developments**

### ***Genevant Sciences***

In April 2018, we entered into an agreement with Roivant to launch Genevant, a jointly-owned company focused on the discovery, development, and commercialization of a broad range of RNA-based therapeutics enabled by our proprietary Delivery Technologies. We have licensed exclusive rights to our LNP and ligand conjugate delivery platforms to Genevant for RNA-based applications outside of HBV. Genevant plans to develop products in-house and pursue industry partnerships to build a diverse pipeline of therapeutics across multiple modalities, including RNAi, mRNA, and gene editing.

Under the terms of the agreement, Roivant contributed \$37.5 million in transaction-related seed capital for Genevant, consisting of an initial \$22.5 million and a subsequent investment of \$15 million at a pre-determined, stepped-up valuation. We retain all rights to our LNP and conjugate delivery platforms for HBV, and are entitled to a tiered royalty from Genevant on future sales of products enabled by those delivery platforms. We also retain the entirety of our royalty entitlement on the commercialization of Alnylam's patisiran. The initial investment and the subsequent investment were completed during the second quarter 2018, therefore at June 30, 2018 Arbutus holds an equity interest in Genevant equal to 41%. We recorded a \$24.9 million non-cash gain in the second quarter of 2018 as a result of this transaction.

Genevant is led by Executive Chairman Paris Panayiotopoulos, former CEO of ARIAD Pharmaceuticals, accompanied by a management team of RNA experts including Dr. Bo Rode Hansen as President, Chief Scientific Officer, and Head of R&D; Dr. Peter Lutwyche as Chief Technology Officer; Dr. Konstantin Linnik as General Counsel; Dr. James Heyes as Senior VP; and a scientific team with decades of RNA development experience.

### ***Acuitas Therapeutics Inc.***

In accordance with a settlement agreement signed in November 2012, we finalized and entered a cross-license agreement with Acuitas Therapeutics Inc. (Acuitas) in December 2013. The terms of the cross-license agreement provided 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 was only able to grant access to our LNP technology to its partners if it is part of a product sublicense. At the same time, the terms provided 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 had agreed that it would not compete in the RNAi field for a period of five years, ending in November 2017. Arbutus considered Acuitas to be in material breach of their cross-license agreement and provided notice to Acuitas in August 2016 to terminate the cross license agreement, resulting in litigation between the two parties. In February 2018, Arbutus and Acuitas reached a settlement terminating Acuitas' right to further use or sublicense Arbutus' LNP technology. Please refer to "Item 1. Legal Proceedings" for additional information.

### ***Site Consolidation***

In February 2018, we announced a site consolidation and organizational restructuring to better align our HBV business in Warminster, PA. These organizational changes are expected to result in increased efficiency, a more flexible variable cost structure, and additional preservation of our cash reserves. To achieve this alignment, during the second quarter of 2018 we reduced our global workforce by approximately 35% and closed our Burnaby BC facility. These activities were successfully completed during the second quarter without negatively impacting our research and development timelines. For further detail, refer to note 9 "Site Consolidation" in the condensed consolidated financial statements in Part I.

## CRITICAL ACCOUNTING POLICIES AND ESTIMATES

**Equity method investment** / We account for our investment in associated companies in accordance with ASC 323, *Investments - Equity Method and Joint Ventures*. In accordance with ASC 323, associated companies are accounted for as equity method investments. Our share of results of associated companies are presented on a one-line basis. Investments in, and advances to, associated companies are presented on a one-line basis in the caption "Investment in Genevant" in our Consolidated Balance Sheet, net of allowance for losses, which represents our best estimate of probable losses inherent in such assets. The Investment in Genevant balance recorded was based on the fair value of the equity received. Our proportionate share of the associated company's net income or loss is presented on a one-line basis in the caption "Gain on Investment" in our Consolidated Statement of Operations and Comprehensive Loss. Transactions between the Company and the associated company are eliminated on a basis proportional to our ownership interest. Financial results of Genevant are recorded on a one-quarter lag basis.

**Site consolidation expense** / We account for site consolidation expense in accordance with ASC 420, *Exit or Disposal Cost Obligations*. ASC 420 specifies that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred, except for a liability where employees are required to render service until they are terminated in order to receive termination benefits and will be retained to render service beyond the minimum retention period. A liability for such one-time termination benefits shall be measured initially at the communication date based on the fair value of the liability as of the termination date and recognized ratably over the future service period.

**Revenue recognition** / We adopted the new revenue standard (Accounting Standards Codification "ASC" 606) effective January 1, 2018, using the modified retrospective method under which previously presented financial statements are not restated and the cumulative effect of adopting the new revenue standard on contracts in process is recognized by an adjustment to retained earnings at the effective date. The adoption of the new revenue standard did not change recognized revenue under our ongoing significant collaborative research and license agreements and no cumulative effect adjustment was required.

The new guidance in ASC 606 requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers under a five-step model: (i) identify contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when or as a performance obligation is satisfied.

We generate revenue primarily through collaboration agreements, which may require delivery of various rights and/or services, including intellectual property rights or licenses and research and development services. Under such collaboration agreements, we are generally eligible to receive non-refundable upfront payments, funding for research and development services, milestone payments, and royalties.

In contracts where more than one performance obligation exists to provide its customer with goods or services, each performance obligation is evaluated to determine whether it is distinct based on whether (i) the customer can benefit from the good or service either on its own or together with other resources that are readily available and (ii) the good or service is separately identifiable from other promises in the contract. The consideration under the contract is then allocated between the distinct performance obligations based on their respective relative stand-alone selling prices. The estimated stand-alone selling price of each deliverable reflects the our best estimate of what the selling price would be if the deliverable was regularly sold on a stand-alone basis and is determined by reference to market rates for the good or service when sold to others or by using an adjusted market assessment approach if selling price on a stand-alone basis is not available.

The consideration allocated to each distinct performance obligation is recognized as revenue when control is transferred to the customer for the related goods or services. Consideration associated with at-risk substantive performance milestones, including sales-based milestones, is recognized as revenue when it is probable that a significant reversal of the cumulative revenue recognized will not occur. Sales-based royalties received in connection with licenses of intellectual property are subject to a specific exception in the revenue standards, whereby the consideration is not included in the transaction price and recognized in revenue until the customer's subsequent sales or usages occur.

**Stock-based compensation** / In June 2018, the FASB issued ASU 2018-07, *Compensation - Stock Compensation (Topic 718), Improvements to Nonemployee Share-Based Payment Accounting*. The amendments in this Update provide guidance about aligning nonemployee and employee share-based payment accounting. The amendments in this Update are effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2018. We early adopted the new standard as of January 1, 2018. The adoption of this standard did not have a material impact on the Company's financial position and results of operations.

There are no other changes to our critical accounting policies and estimates from those disclosed in our annual MD&A contained in our Annual Report Form 10-K for the year ended December 31, 2017.

## RECENT ACCOUNTING PRONOUNCEMENTS

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board or other standard setting bodies that are adopted by us 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 I, Item 1, "Financial Statements (Unaudited)" of this Quarterly Report on Form 10-Q for a description of recent accounting pronouncements applicable to our business.

## RESULTS OF OPERATIONS

The following summarizes the results of our operations for the periods shown, in thousands (except for per share figures):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2018		2017		2018		2017	
Total revenue	\$	1,244	\$	1,039	\$	2,680	\$	1,274
Operating expenses		23,290		20,524		43,131		39,058
Loss from operations		(22,046)		(19,485)		(40,451)		(37,784)
Net income (loss)	\$	3,091	\$	(18,255)	\$	(14,338)	\$	(36,882)
Net income (loss) attributable to common shares		550		(18,255)		(19,215)		(36,882)
Basic and diluted loss per common share		0.01		(0.33)		(0.35)		(0.68)

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

	Three months ended June 30,				Six months ended June 30,			
	2018	% of Total	2017	% of Total	2018	% of Total	2017	% of Total
Alexion	\$	—%	\$	31%	\$	—%	\$	26%
Gritstone	937	75%	—	—%	2,087	78%	—	—%
Department of Defense ("DoD")	263	21%	—	—%	263	10%	—	—%
Other milestone and royalty payments	44	4%	721	69%	330	12%	938	74%
<b>Total revenue</b>	<b>\$</b>	<b>1,244</b>	<b>\$</b>	<b>1,039</b>	<b>\$</b>	<b>2,680</b>	<b>\$</b>	<b>1,274</b>

Revenue contracts are addressed in detail in the Overview section of Part I, Item 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations" above.

### Alexion revenue

In March 2017, we signed a License Agreement with Alexion that granted them exclusive use of our proprietary LNP technology in one of Alexion's rare disease programs, and began recognizing a portion of the non-refundable upfront payment and services provided. In July 2017, we received notice of termination from Alexion for our LNP license agreement. The termination was driven by a strategic review of Alexion's business and research and development portfolio, which included a decision to discontinue development of mRNA therapeutics.

### Gritstone revenue

On October 16, 2017, we entered into a license agreement with Gritstone that entitles Gritstone to research, develop, manufacture and commercialize products with the Company's LNP technology. In October 2017, we received the upfront license payment, and are eligible to receive further potential payments for development and commercial milestone payments

and royalty payments on future product sales. Revenue recognized in the three and six months ended June 30, 2018 relates to the earned portion of the upfront license fee, as well as services provided to Gritstone. As a result of the Company's agreement with Genevant (see note 3 of the financial statements for details), from April 11, 2018 going forward Genevant is entitled to 50% of the revenues earned (excluding the upfront license payment discussed above) by the Company from Gritstone.

**DoD Revenue**

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. In Q4 2015, the DoD contract was terminated. In Q2 2018 we completed contract close out procedures with the DoD and recorded the final reimbursement.

**Other milestone and royalty payments**

Under our licensing and collaboration arrangements with Alnylam and Acuitas, we earn licensing fee revenue from Acuitas as well as further potential development and commercial milestones from Alnylam for the use of our LNP technology. Our cross-license agreement with Acuitas has been terminated in accordance with the settlement agreement described under Part II, Item 1, "Legal Proceedings."

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 utilizes a license to our technology.

**Expenses** / Expenses are summarized in the following table, in thousands:

	Three months ended June 30,			
	2018	% of Total	2017	% of Total
Research, development, collaborations and contracts	\$ 16,356	70%	\$ 15,445	75%
General and administrative	3,775	16%	4,599	22%
Depreciation	578	2%	480	2%
Site consolidation	2,581	11%	—	—%
<b>Total operating expenses</b>	<b>\$ 23,290</b>		<b>\$ 20,524</b>	

	Six months ended June 30,			
	2018	% of Total	2017	% of Total
Research, development, collaborations and contracts	\$ 30,305	70%	\$ 29,317	75%
General and administrative	7,444	17%	8,927	23%
Depreciation	1,180	3%	814	2%
Site consolidation	4,202	10%	—	—%
<b>Total operating expenses</b>	<b>\$ 43,131</b>		<b>\$ 39,058</b>	

**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 in both the three and six months ended June 30, 2018 as compared to the three and six months ended June 30, 2017. Stock based compensation expense in the first six months of 2018 is about \$3.0 million less than the first six months of 2017 due to the expiry of certain share repurchase rights in Q3 2017. Program R&D expenses, however, have increased in the first half of 2018 over the first half of 2017 as our pipeline expands and goes further into the clinic. In the first half of 2017, we initiated a Phase 1 clinical trial for AB-423. In the first half of 2018 we initiated a Phase I clinical trial for POS AB-506 (capsid inhibitor) and it has shown striking potency and improved PK over AB-423 in preclinical studies. We will wait for AB-506 results before deciding whether or not to proceed with additional clinical evaluation of AB-423. We continue to incur costs related to our other programs including IND/CTA-enabling work and CTA regulatory filings completed in mid 2018 for AB-452 (HBV RNA Destabilizer), and pre-IND/CTA work on AB-729 (GalNAc-RNAi).

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. 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.

#### General and administrative

General and administrative expenses decreased in the three and six months ended June 30, 2018 compared to the three and six months ended June 30, 2017, primarily due to a decrease in non-cash compensation expense related to the expiry of repurchase rights in Q3 2017, offset by professional fees incurred related to the launch of Genevant Sciences - see Overview.

#### Site consolidation charges

In February 2018, we announced a site consolidation and organizational restructuring to better align our HBV business in Warminster, PA, by reducing our global workforce and closing our Burnaby facility. During the three and six months ended June 30, 2018 we initiated and substantially completed our site consolidation plan recording expenses of \$2.6 million and \$4.2 million, respectively. Most of the employee-related site consolidation expenses have been expensed ratably over the period that employees have provided services, which was substantially complete by June 30, 2018. Further, we have recorded the cost of remaining lease payments for the remaining term of the lease to July 2019, offset by income that we will expect to receive under a sublease contract entered into prior to June 30, 2018 for approximately 35% of the space available for sublease. We will continue to attempt to sublet the remaining space. We expect total site consolidation expenses to be approximately \$5.0 million.

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

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2018	2017	2018	2017
Interest income	\$ 805	\$ 390	\$ 1,563	\$ 758
Interest expense	—	(68)	(104)	(110)
Foreign exchange gains (losses)	(359)	798	(885)	1,225
Gain on investment	24,884	—	24,884	—
(Increase) in fair value of warrant liability	—	—	—	(22)
Decrease (increase) in fair value of contingent consideration	(193)	110	655	(949)
<b>Total other income (losses)</b>	<b>\$ 25,137</b>	<b>\$ 1,230</b>	<b>\$ 26,113</b>	<b>\$ 902</b>

#### Interest income

As described in our quantitative and qualitative disclosures about market risk in our Annual Report on Form 10-K for the year ended December 31, 2017, we invest our cash reserves in high interest savings accounts and guaranteed investment certificates and term deposits with varying terms to maturity (not exceeding two years) issued by major banks. The increase in interest income for the six months ended June 30, 2018 is due to the proceeds received from the preferred shares sold to Roivant (further described in note 6 of our financial statements) and more favorable interest rates during the year.

#### Foreign exchange gains (losses)

We 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 three and six months ended June 30, 2018, we recorded foreign exchange losses, which are primarily unrealized losses related to the depreciation in value of our Canadian dollar funds, from the previous period, when converted to our functional currency of U.S. dollars. In the future, we expect that the

proportion of cash and investment balances and expenses incurred in Canadian dollars, relative to U.S. dollars, will continue to decrease as a result of the site consolidation.

**Gain on investment in Genevant**

As described in Management's Discussion and Analysis of Financial Condition and Results of Operations - Overview section of this discussion and in the Notes to the Condensed Consolidated Financial Statements, in Q2 2018, together with Roivant, we launched Genevant, a jointly-owned company focused on the discovery, development, and commercialization of a broad range of RNA-based therapeutics enabled by our proprietary Delivery Technologies. This transaction, together with a subsequent secondary financing of Genevant, resulted in a gain on investment of \$24.9 million.

**Decrease (increase) in fair value of contingent consideration**

Contingent consideration is a liability assumed by the Company from our acquisition of Arbutus Inc. in March 2015. In general, increases in the fair value of the contingent consideration are related to the progress of our programs as they get closer to triggering contingent payments, as was the case with the increase in contingent consideration for the three months ended June 30, 2018. The decrease in contingent consideration for the six months ended June 30, 2018 is due to a delay in the progress of our program earlier in the year related to the first payment, which reduced the estimated fair value of the liability.

**LIQUIDITY AND CAPITAL RESOURCES**

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

	Three Months Ended June 30,		Six months ended June 30,	
	2018	2017	2018	2017
Net income (loss) for the period	\$ 3,091	\$ (18,255)	\$ (14,338)	\$ (36,882)
Adjustments to reconcile net income (loss) to net cash provided by operating activities	(20,696)	4,649	(19,422)	10,142
Changes in operating assets and liabilities	(17)	8,528	(3,829)	4,123
Net cash used in operating activities	(17,622)	(5,078)	(37,589)	(22,617)
Net cash provided by (used in) investing activities	14,980	(1,390)	(60,686)	21,810
Net cash provided by financing activities	735	4	55,102	358
Effect of foreign exchange rate changes on cash & cash equivalents	(361)	825	(926)	1,248
Net (decrease) increase in cash and cash equivalents	(2,268)	(5,639)	(44,099)	799
Cash and cash equivalents, beginning of period	12,461	29,851	54,292	23,413
<b>Cash and cash equivalents, end of period</b>	<b>\$ 10,193</b>	<b>\$ 24,212</b>	<b>\$ 10,193</b>	<b>24,212</b>

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.

At June 30, 2018, we had an aggregate of \$154.9 million in cash and cash equivalents and short-term investments, as compared to an aggregate of \$139.0 million in cash and cash equivalents, short-term investments, and restricted investments at December 31, 2017.

For the six months ended June 30, 2018, operating activities used \$37.6 million in cash as compared to \$22.6 million of cash used in the six months ended June 30, 2017. The increase in net cash used in operating activities is largely related to site

consolidation expenses in the first half of 2018 and, conversely, cash in-flows from the Alexion collaboration in the first half of 2017.

For the six months ended June 30, 2018, investing activities decreased cash by \$60.7 million as we invested the cash received from the preferred share financing in short term investments.

For the six months ended June 30, 2018, financing activities increased cash by \$55.1 million due to the completion of Tranche 2 of the private financing netting \$66.3 million, offset by repayment of our promissory note to Wells Fargo.

**Cash requirements** / At June 30, 2018 we held an aggregate of \$154.9 million in cash, comprised of \$10.2 million in cash and cash equivalents and \$144.7 million in short-term investments. In October 2017, we announced that we had entered into a subscription agreement with Roivant Sciences Ltd. ("Roivant") for the sale of Preferred Shares to Roivant for gross proceeds of \$116.4 million. The initial investment of \$50.0 million closed in October 2017, and the remaining amount of \$66.4 million closed in January 2018.

We believe we have sufficient cash resources to fund our operations 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;
- revenue earned from our legacy collaborative partnerships and licensing agreements, including potential royalty payments from Alnylam;
- revenue earned from ongoing collaborative partnerships, including milestone and royalty payments;
- 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 therapeutics programs;
- 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;
- 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; and
- costs associated with our site consolidation plans.

We intend to 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.

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.

#### **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**

The following table summarizes our contractual obligations as at June 30, 2018:

(in millions)	Payments Due by Period				
	Total	Less than 1 year	1 – 3 years	3 – 5 years	More than 5 years
<b>Contractual Obligations</b>					
Facility leases	\$ 7.2	\$ 1.6	\$ 1.4	\$ 1.4	\$ 2.8
<b>Total</b>	<b>\$ 7.2</b>	<b>\$ 1.6</b>	<b>\$ 1.4</b>	<b>\$ 1.4</b>	<b>\$ 2.8</b>

#### IMPACT OF INFLATION

Inflation has not had a material impact on our operations.

#### RELATED PARTY TRANSACTIONS

##### Series A participating convertible preferred shares

On October 2, 2017, we entered into a subscription agreement with Roivant for the sale of Preferred Shares to Roivant for gross proceeds of \$116.4 million. The Preferred Shares are non-voting and are convertible into common shares at a conversion price of \$7.13 per share (which represents a 15% premium to the closing price of \$6.20 per share). The purchase price for the Preferred Shares plus an amount equal to 8.75% per annum, compounded annually, will be subject to mandatory conversion into 22,589,601 common shares on October 16, 2021 (subject to limited exceptions in the event of certain fundamental corporate transactions relating to Arbutus' capital structure or assets, which would permit earlier conversion at Roivant's option). On a pro-forma basis, after conversion of the Preferred Shares into common shares on October 16, 2021, based on the number of common shares outstanding on July 31, 2018, Roivant would hold 49.50% of the Company's common shares. Roivant has agreed to a four year lock-up period for this investment and its existing holdings in Arbutus. Roivant has also agreed to a four year standstill whereby Roivant will not acquire greater than 49.99% of the Company's common shares or securities convertible into common shares.

The initial investment of \$50.0 million closed on October 16, 2017, and the remaining amount of \$66.4 million closed on January 12, 2018 following regulatory and shareholder approvals.

##### Services purchased from Roivant

During 2018, we purchased certain research and development services from Roivant, which are billed at agreed hourly rates and reflective of market rates for such services. The total cost of these services was \$0.6 million for the three and six months ended June 30, 2018.

##### Launch with Roivant of jointly-owned Genevant Sciences

On April 11, 2018, we entered into an agreement with Roivant Sciences to launch Genevant Sciences ("Genevant"), a jointly-owned company focused on the discovery, development, and commercialization of a broad range of RNA-based therapeutics enabled by Arbutus' proprietary lipid nanoparticle (LNP) and ligand conjugate delivery technologies.

Under the terms of the agreement, we contributed a license to the delivery technologies, and equipment required for lab operations. The contributed license provides Genevant with exclusive rights to the LNP and ligand conjugate delivery platforms for RNA-based applications outside of HBV. Roivant has contributed \$37.5 million in transaction-related seed capital for Genevant, consisting of an initial capital contribution of \$22.5 million and a subsequent investment of a further \$15.0 million at a pre-determined, stepped-up valuation. We retain all rights to the LNP and conjugate delivery platforms for HBV, and will be entitled to a tiered low single-digit royalty from Genevant on future sales of products enabled by those delivery platforms. We also retain the entirety of its royalty entitlement on the commercialization of Alnylam's patisiran.

Subsequent to the transaction date, we continue to provide certain transition services to Genevant consisting primarily of general and administrative support and Genevant provides certain R&D services to Arbutus primarily related to the LNP and conjugate delivery technologies. These services are billed by each respective party at contractually agreed hourly rates, which are reflective of market rates for such services. In addition, we have entered into a sublease with Genevant for 17,900 square feet of space in Arbutus' Burnaby facility, at rates that are consistent with market rates.



At April 11, 2018, Arbutus and Roivant each received a 50% ownership interest in Genevant. As a result of the subsequent investment in Genevant completed on June 25, 2018 by Roivant, we owned 41% of the common equity of Genevant as at June 30, 2018. Refer to Part I, Item 2 "Management's Discussion and Analysis of Financial Condition and Results of Operations - Overview" for additional information.

During 2018, we purchased certain research and development services from Genevant. These services are billed at agreed hourly rates and reflective of market rates for such services. The total cost of these services was \$0.1 million for the six months ended June 30, 2018.

Conversely, Genevant purchased certain G&A and transitional services from us and has a sublease for 17,900 square feet in our Burnaby facility. The total income for these services was \$0.2 million for the six months ended June 30, 2018.

#### **OUTSTANDING SHARE DATA**

As of July 31, 2018, we had 55,404,298 common shares, no par value, outstanding. In addition, we had 6,757,728 stock options outstanding and 1,164,000 Series A participating convertible preferred shares outstanding, which will be mandatorily convertible into 22,589,601 common shares on October 16, 2021. Assuming the 6,757,728 stock options were exercised and the preferred shares were converted into 22,589,601 common shares, we would have had 84,751,627 common shares outstanding at July 31, 2018.

#### **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

There have been no material changes in our quantitative and qualitative disclosures about market risk from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2017.

#### **ITEM 4. CONTROLS AND PROCEDURES**

As of June 30, 2018, 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 Accounting Officer (CAO), our principal accounting officer. Based upon this evaluation, the CEO and CAO have concluded that as of June 30, 2018, our disclosure controls and procedures are effective 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 CAO, to allow timely decisions regarding required disclosure.

It should be noted that while the CEO and CAO believe that our disclosure controls and procedures provide a reasonable level of assurance that they are effective, they 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.

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended June 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

### ITEM 1. 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.

#### UBC Arbitration

Certain early work on liposomal delivery systems and related inventions was undertaken by us 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 RNAi products.

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 took place June 2017. The arbitrator determined in the first phase which agreements are sublicense agreements within UBC's claim, and which are not. No finding was made as to whether any licensing fees are due to UBC under these agreements; this will be the subject of the second phase of arbitration. The arbitrator also held that the patent application that is the subject of the Counterclaim was not required to be licensed to Arbutus. A schedule for the remaining phases has not yet been set.

#### Acuitas Therapeutics

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 disputed Acuitas' position and filed a counterclaim seeking, among other relief, a declaration that the cross-license agreement had been terminated.

On January 10, 2017, we filed an application seeking an order to enjoin Acuitas from 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. Acuitas filed a response to Arbutus' application and the matter was the subject of a hearing on January 26, 2017, which resulted in the Supreme Court of British Columbia granting a pre-trial injunction against Acuitas. Under the terms of the pre-clinical trial injunction, Acuitas was prevented from entering into any new agreements which include sublicensing of Arbutus' LNP. On March 7, 2017, Acuitas appealed the injunction decision and on April 3, 2017, the appeal was denied. On September 29, 2017, the injunction order was extended by consent to March 2, 2018. On February 21, 2018, the contractual issues concerning the cross-license agreement (excluding the claims for damages) were settled out of court, resulting in the termination of Acuitas' rights to further use or sublicense our LNP technology, making permanent the effect of the Court's prior injunction. We have now consolidated our LNP intellectual property estate, which is the most clinically validated delivery technology suitable for RNAi, mRNA therapeutics, and gene editing applications. The settlement stipulates that the four non-exclusive viral vaccine sublicenses previously granted to Moderna are the only sublicenses to survive. These four sublicenses,

previously granted by Acuitas to Moderna under the pre-April 15, 2010 LNP patent families are each limited to a specific viral target. Moderna has no other rights to Arbutus' broad suite of LNP intellectual property. No other sublicenses of Arbutus technology were provided to third parties by Acuitas and accordingly, no other sublicenses of Arbutus technology by Acuitas survived the settlement. This milestone further establishes us as the owner and only source of an industry-leading LNP delivery technology with the ability to develop a full range of nucleic acid-based applications.

**ITEM 1A. RISK FACTORS**

There have been no material changes in our risk factors from those disclosed in our Annual Report on Form 10-K for the fiscal year-ended December 31, 2017.

**ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS**

None.

**ITEM 3. DEFAULTS UPON SENIOR SECURITIES**

None.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**ITEM 5. OTHER INFORMATION**

None.

**ITEM 6. EXHIBITS**

See the Exhibit Index hereto.



**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 Murray, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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) 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 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: August 2, 2018

/s/ Mark Murray  
Name: Mark Murray  
Title: President and Chief Executive Officer

**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, Koert VandenEnden, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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) 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 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: August 2, 2018

/s/ Koert VandenEnden  
Name: Koert VandenEnden  
Title: Chief Accounting Officer

**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 Quarterly Report on Form 10-Q of Arbutus Biopharma Corporation (the "Company") for the quarter ended June 30, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Mark 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: August 2, 2018

/s/ Mark Murray

Name: Mark Murray

Title: President and Chief Executive Officer



**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 Quarterly Report on Form 10-Q of Arbutus Biopharma Corporation (the "Company") for the quarter ended June 30, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I Koert VandenEnden, Chief Accounting 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: August 2, 2018

/s/ Koert VandenEnden  
Name: Koert VandenEnden  
Title: Chief Accounting Officer

## EXECUTIVE EMPLOYMENT AGREEMENT

This Executive Employment Agreement (“**Agreement**”) is made effective as of June 11, 2018 (the “**Effective Date**”) by and between Arbutus Biopharma Inc. (the “**Company**”), and David Hastings (the “**Executive**”) (together the “**Parties**”).

### RECITALS

- A. WHEREAS, the Company desires to employ the Executive as Chief Financial Officer in accordance with the provisions of this Agreement; and
- B. WHEREAS, Executive desires to serve the Company and accept employment under the terms and conditions stated in this Agreement; and
- C. WHEREAS, the Parties have freely negotiated the terms and conditions of this Agreement and have reached agreement on them.

THEREFORE, the Parties agree as follows:

Section 1. **Position and Duties.** The Executive will serve as **Chief Financial Officer** of the Company, and will have powers and duties consistent with such position as may from time to time be prescribed by the Chief Executive Officer of the Company. As **Chief Financial Officer** of the Company, the Executive shall devote his full working time and efforts to the business and affairs of the Company. Notwithstanding the foregoing, the Executive may manage his personal investments or engage in charitable or other community activities and may engage in approved Board of Director appointments, except as restricted or prohibited by the terms of a confidentiality agreement between the Executive and the Company and as long as those engagements, services and activities, individually or in the aggregate, do not interfere with the Executive’s performance of his duties to the Company.

### Section 2. **Compensation and Related Matters.**

(a) **Base Salary.** The Executive’s base salary will be US\$400,000 per year. The Executive’s base salary will be reviewed annually by the Chief Executive Officer of the Company and is subject to increase but not decrease except for an across-the-board salary reduction affecting all senior executives of the Company. The base salary in effect at any given time is referred to as “**Base Salary**” and this Agreement need not be modified to reflect a change in Base Salary. The Base Salary is subject to withholding and payable in a manner that is consistent with the Company’s usual payroll practices for senior executives.

(b) **Bonus.** The Executive is eligible to be considered for an annual discretionary bonus of up to 40% of Base Salary (such bonus, the “**Target Bonus**”). The Target Bonus shall be subject to the terms of the bonus plan and the approval of the Company’s Board of Directors (the “**Board**”), in its sole discretion, on an annual basis.

(c) **Expenses.** The Executive is entitled to receive prompt reimbursement for all reasonable expenses incurred by him in performing services under this Agreement, in

accordance with the policies and procedures then in effect and established by the Company for its senior executives.

(d) Other Benefits. The Executive is entitled to participate in or receive benefits consistent with other senior executives under the Company's employee benefit plans as they may be adopted and amended from time to time, subject to the terms and conditions of those employee benefit plans.

(e) Equity Compensation. Subject to the discretionary approval of the Company's Board of Directors, and in accordance with the Company's annual performance and compensation review process, the Executive shall be eligible to receive equity awards under the Arbutus Biopharma Corporation 2016 Omnibus Share and Incentive Plan and or any other similar equity incentive plan (the "Equity Plan") to the same extent as other executives of the Company. The Company's President and CEO will promptly recommend to the Board that the Executive receive an option grant in the amount of 200,000 shares of the Company, subject to the terms of the Equity Plan, the terms of a notice of grant and any other terms as may be required by the Board.

(f) Vacations. The Executive is entitled to paid vacation each year, in addition to sick leave and observed holidays in accordance with the policies and practices of the Company, as may be amended from time to time. Vacation may be taken at such times and intervals as the Executive shall determine, subject to the business needs of the Company. Vacation does not accrue and, accordingly, will not be paid out upon termination of employment.

Section 3. Non-Competition and Non-Solicitation

(a) The Executive acknowledges that the Company's industry is highly competitive and employees leaving the employ of the Company have the ability to cause significant damage to the Company's interests if they join a competing business immediately upon leaving the Company.

(b) Definitions:

(i) "Affiliate" means any person or entity directly or indirectly controlling, controlled by or under common control with the Company, where control may be by either management authority or equity interest.

(ii) "Business" or "Business of the Company" means (a) researching, developing, producing and marketing any treatment for hepatitis B virus infection in humans or (b) any other treatment area in which the Company has an active research and development program on the date this Agreement terminates and in connection with which the Executive directly provided service or had direct supervisory responsibilities.

(iii) "Competing Business" means any endeavor, activity or business which is competitive in any material way with the Business of the Company worldwide.

(iv) "Contact" means any person, firm, corporation or other entity that was a client, customer, supplier, principal, shareholder, investor, collaborator, strategic partner,

licensee, contact or prospect of the Company (or of its partners, funders or Affiliates) with whom the Executive dealt or otherwise became aware of during the term of his employment in any capacity with the Company.

(v) "Restricted Period" means: (a) with respect to Section 3(d) the eighteen (18) month period commencing immediately after the Executive's employment terminates and (b) with respect to Section 3(f), the twelve (12) month period commencing immediately after the Executive's employment terminates.

(c) Reasonableness. The Executive hereby acknowledges and agrees that:

(i) both before and since the Effective Date the Company has operated and competed and will operate and compete worldwide, with respect to the Business of the Company;

worldwide;

(ii) competitors of the Company and the Business are located

(iii) in order to protect the Company adequately, any enjoinder of

competition would have to apply to any country in which the Company, during the term of the Executive's employment, had material business relationships;

(iv) during the course of the Executive's employment with the Company, on behalf of the Company, the Executive will acquire knowledge of, and will come into contact with, initiate and establish relationships with, both existing and new clients, customers, suppliers, principals, contacts and prospects of the Company, and that in some circumstances the Executive may become the senior or sole representative of the Company dealing with such persons; and

(v) in light of the foregoing, the provisions of this Section 3 are reasonable and necessary for the proper protection of the Business of the Company.

(d) Restrictive Covenant. Except as set forth on Exhibit B attached hereto, during the term of the Executive's employment and for the Restricted Period after the termination thereof, the Executive shall not, without the advance written consent of the Board, such consent to be granted or withheld in the Board's sole discretion, within the geographic scope of any country in which the Company, during the term of the Executive's employment, had material business relationships, carry on or be employed by or engaged in or have any financial or other interest in or be otherwise commercially involved in a Competing Business, directly or indirectly, either individually or in partnership or jointly or in conjunction with any person, firm, corporation or other entity, as principal, agent, consultant, advisor, employee, shareholder or in any manner whatsoever.

(e) Exception. The Executive shall not be in default of Section 3(d) by virtue of the Executive:

(i) following the termination of employment, holding, strictly for portfolio purposes and as a passive investor, no more than five percent (5%) of the issued and

outstanding shares of, or any other interest in, any corporation or other entity that is a Competing Business; or

(ii) during the term of his employment, holding, strictly for portfolio purposes and as a passive investor, issued and outstanding shares of, or any other interest in, any corporation or other entity, the business of which corporation or other entity is in the same Business as the Company provided such corporation is not a Competing Business, and provided further that the Executive first obtains the Company's written consent, which consent will not be unreasonably withheld.

If the Executive holds issued and outstanding shares or any other interest in a corporation or other entity pursuant to Section 3(e)(ii) above, and following the acquisition of such shares or other interest the business of the corporation or other entity becomes a Competing Business, the Executive will promptly dispose of the Executive's shares or other interest in such corporation or other entity.

(f) Non-Solicitation. The Executive shall not, during the term of his employment and for the Restricted Period after the termination thereof for any reason, whether legal or illegal, either individually or in partnership or jointly or in conjunction with any person, firm, corporation or other entity, as principal, agent, consultant, advisor, employee, shareholder or in any manner whatsoever, without the prior written and informed consent of the Company, directly or indirectly:

(i) solicit, induce or encourage any Contact to curtail or cease its relationship with the Company, for any purpose which is competitive with the Business; or

(ii) accept (or procure or assist the acceptance of) any business from any Contact if such business is competitive with the Business; or

(iii) be employed by or supply (or procure or assist the supply of) any goods or services to any Contact for any purpose which the Executive knows or has reason to know is competitive with the Business; or

(iv) employ, engage, offer employment or engagement to or solicit the employment or engagement of or otherwise entice away from or solicit, induce or encourage to leave the employment or engagement of the Company, any individual who is employed or engaged by the Company at the time of any such offer, solicitation or enticement whether or not such individual would commit any breach of his contract or terms of employment or engagement by leaving the employ or the engagement of the Company, provided that the Executive shall be permitted, solely in a personal capacity, to provide letters of reference for individuals who are employed by the Company.

(g) Validity. The Executive expressly recognizes and acknowledges that it is the intent of the parties that the Executive's activities following the termination of the Executive's employment with the Company be restricted in the manner described in this Section 3, and acknowledges that good, valuable, and sufficient consideration has been provided in

exchange for such restrictions. The Executive agrees that should any of the restrictions contained in this Section 3 be found to be unreasonable to any extent by a court of competent

jurisdiction adjudicating upon the validity of the restriction, whether as to the scope of the restriction, the area of the restriction or the duration of the restriction, then such restriction shall be reduced to that which is in fact declared reasonable by such court, or a subsequent court of competent jurisdiction, requested to make such a declaration, in order to ensure that the intention of the parties is given the greatest possible effect.

Section 4. Termination. The Executive's employment by the Company may be terminated without any breach of this Agreement under the following circumstances:

(a) Death. The Executive's employment hereunder terminates upon his death.

(b) Disability. The Company may terminate the Executive's employment if he is disabled (as determined by the Chief Executive Officer) in a manner that renders the Executive unable to perform the essential functions of his then existing position or positions under this Agreement with or without reasonable accommodation for a period of six months or more. Nothing in this [Section 4\(b\)](#) is to be construed to waive the Executive's rights, if any, under existing law including, without limitation, the Family and Medical Leave Act of 1993, 29 U.S.C. §2601 et seq., and the Americans with Disabilities Act, 42 U.S.C. §12101 et seq.

(c) Termination by Company for Cause. For purposes of this Agreement, "For Cause" shall mean: (i) Employee is charged with a felony (excluding a DUI) or any violation of state or federal securities laws; (ii) Employee willfully engages in conduct that is in bad faith and materially injurious to the Company, including but not limited to, misappropriation of trade secrets, fraud or embezzlement; (iii) Employee commits a material breach of this Agreement; (iv) Employee willfully refuses to implement or follow a lawful policy or directive of the Company; or (v) Employee engages in misfeasance or malfeasance demonstrated by a pattern of failure to perform job duties diligently and professionally. The Company may terminate Employee's employment For Cause at any time, without any advance notice. The Company shall pay Employee all compensation to which Employee is entitled up through the date of termination, subject to any other rights or remedies of the Company under law; and thereafter all obligations of the Company under this Agreement shall cease.

(d) Termination by the Company Without Cause or by the Executive for Good Reason. The Company may terminate the Executive's employment under this Agreement at any time without Cause and the Executive may terminate his employment with Good Reason. For purposes of this Agreement, "Good Reason" means the occurrence of any of the following events without the Executive's prior written consent: (i) the failure of the Executive to be appointed to the position set forth in Section 1, if not promptly cured after written notice; (ii) a reduction by the Company of the Executive's Base Salary or Target Bonus percentage, except for an across-the-board salary reduction affecting all senior executives of the Company; (iii) a relocation of Employee's principal place of employment by more than fifty (50) miles; (iv) a termination of the Executive's employment by the Company; and (v) a substantial and adverse change to the Executive's duties and responsibilities. For purposes of this Agreement, except for the Company terminating the Executive's employment, termination for Good Reason requires

Executive to comply with the "Good Reason Process," which means that (i) the Executive reasonably determines in good faith that a Good Reason condition has occurred; (ii) the Executive notifies the Company in writing of the first occurrence of the Good Reason condition

within 30 days of the first occurrence of such condition; (iii) the Executive cooperates in good faith with the Company's efforts, for a period of not less than 30 days following that notice (the "**Cure Period**") to remedy the condition; (iv) notwithstanding the Company's efforts, the Good Reason condition continues to exist; and (v) the Executive terminates his employment within 30 days after the end of the Cure Period. If the Company cures the Good Reason condition during the Cure Period, Good Reason is deemed not to have occurred.

Any termination by the Company of the Executive's employment under this Agreement that does not constitute a termination for Cause under [Section 4\(c\)](#) and does not result from the death or disability of the Executive under Section 4(a) or (b) is a termination without Cause.

(e) **Termination by the Executive.** Executive may terminate employment with the Company without Good Reason at any time for any reason or no reason at all, upon thirty (30) days' advance written notice. The Company shall have the option, in its sole discretion, to make Executive's termination effective or to direct the Executive to perform no work and/or remain off premises at any time prior to the end of such notice period as long as the Company pays Executive all compensation to which Executive is entitled up through the last day of the 30 day notice period.

(f) **Notice of Termination.** Except for termination as specified in [Section 4\(a\)](#), any termination of the Executive's employment by the Company or any termination of his employment by the Executive must be communicated by written Notice of Termination to the other party. For purposes of this Agreement, a "**Notice of Termination**" means a notice that indicates the specific termination provision in this Agreement that the termination is based upon.

(g) **Date of Termination.** "**Date of Termination**" means: (i) if the Executive's employment is terminated by his death, the date of his death; (ii) if the Executive's employment is terminated on account of disability under [Section 4\(b\)](#) or by the Company for Cause under [Section 4\(c\)](#), or by the Company without Cause under [Section 4\(d\)](#), on the date the Notice of Termination is given; (iii) if the Executive terminates his employment under [Section 4\(e\)](#) without Good Reason, on the date specified by the Executive in the notice (which shall be at least thirty (30) days after the date of the Notice of Termination) and, if no such date is specified, 30 days after the date of the Notice of Termination; and (iv) if the Executive terminates his employment under [Section 4\(e\)](#) with Good Reason, the date on which a Notice of Termination is given after the end of the Cure Period. Notwithstanding the foregoing, if the Executive gives a Notice of Termination to the Company that takes effect at a future date, the Company may unilaterally accelerate the Date of Termination and that acceleration will not be deemed a termination by the Company for purposes of this Agreement.

#### Section 5. Compensation Upon Termination.

(a) **Termination Generally.** If the Executive's employment with the Company is terminated for any reason, the Company shall pay or provide to the Executive (or to his authorized representative or estate), (i) unpaid expense reimbursements submitted to the Company in accordance with the Company's policies; (ii) accrued but unused vacation to the

extent payment is required by law or Company policy; (iii) any vested benefits the Executive may have under any employee benefit plan of the Company; (iv) any earned but unpaid Base

Salary and (v) any earned but unpaid annual Target Bonus, for the prior fiscal year (collectively the "**Accrued Benefit**") on or before the time required by law, but in no event more than 30 days after the Executive's Date of Termination. The Executive shall not be entitled to any other salary, compensation, bonus (or pro rata share thereof) or benefits from the Company thereafter, except as otherwise specifically provided hereunder, under the Company's employee benefit plans or as expressly required by applicable law.

(b) Termination by the Company Without Cause or by the Executive for Good Reason. If the Executive's employment is terminated by the Company without Cause or by the Executive for Good Reason, then the Company shall pay the Executive his Accrued Benefit as of the Date of Termination. In addition, subject to the Executive providing the Company with a fully effective general release of claims in a form and manner satisfactory to the Company that includes but is not limited to the terms set forth in the attached Exhibit A (the "**Release**") within the 60-day period following the Date of Termination, the Company shall pay the Executive (i) severance pay in a lump sum in cash in an amount equal to eighteen (18) months of Executive's Base Salary, less lawful withholding (as applicable, "**Severance Amount**"), payable within 60 days after the Date of Termination, but if that 60-day period extends over two calendar years, the Company shall make the payment in the second calendar year, (ii) a bonus payment equal to the lesser of (y) Target Bonus pro-rated for the portion of the year the Executive was employed by the Company prior to the termination or (z) the average of the bonus payments, if any, made to the Executive with respect to the previous three (3) calendar years preceding the date of termination of employment, pro-rated for the portion of the year that Executive is employed, (iii) provided that the Executive timely elects COBRA coverage, reimburse the Executive for the COBRA premiums paid by the Executive, if any, for the continuation of coverage under the Executive's then-existing group company health plan that the Executive and his dependents are eligible to receive for the earlier of a period of up to eighteen (18) months from the date of the Executive's termination of employment, or until the Executive becomes eligible to receive health insurance benefits under any other employer's group health plan, and (iv) immediate vesting on a pro-rata basis of the Executive's initial stock option grant, prorated at 1/36<sup>th</sup> of the total option grant for each completed month of service as at the Date of Termination.

Section 6. Change in Control Provisions. The provisions of this [Section 6](#) set forth the Executive's rights and obligations upon the occurrence of a Change in Control of the Company. These provisions are intended to assure and encourage in advance the Executive's continued attention and dedication to his assigned duties and his objectivity during the pendency and after the occurrence of any Change in Control. The provisions of this Section 6 apply in addition to, and/or modify, the provisions of Section 5(b) regarding severance pay and benefits upon a termination of employment, if applicable, if the termination of employment occurs within 12 months after the occurrence of a Change in Control. These provisions are subject to the Executive providing (and not revoking) the Company with a fully effective Release. These provisions terminate and are of no further force or effect beginning 12 months after the occurrence of such a Change in Control.

(a) Severance. If within 12 months following a Change of Control (i) the Company terminates the Executive's employment with the Company other than for Cause, or (ii)



the Executive resigns from his employment with the Company for Good Reason, within the 60- day period following the Date of Termination, then, in lieu of paying the Executive the

Severance Amount and in addition to paying the Accrued Benefit, Company shall: (i) pay the Executive severance pay in a lump sum in cash (less applicable withholdings) in an amount equal to the Executive's Base Salary multiplied by 2.0 ("**Change in Control Severance Amount**"), payable within 60 days after the Date of Termination, but if that 60-day period extends over two calendar years, the Company shall make the payment in the second calendar year; (ii) pay the Executive a bonus payment equal to the Target Bonus pro-rated for that portion of the year that Executive is employed, (iii) provided that the Executive timely elects COBRA coverage, reimburse the Executive for the COBRA premiums paid by the Executive, if any, for the continuation of coverage under the Executive's then-existing group company health plan that the Executive and his dependents are eligible to receive for the earlier of (x) a period of up to 18 months from the date of the Executive's termination of employment, or (y) until the Executive becomes eligible to receive health insurance benefits under any other employer's group health plan; and (iv) cause all stock options and other stock-based awards granted on or after the Effective Date and held by the Executive to immediately accelerate, vest, and become fully exercisable or nonforfeitable.

(b) Additional Limitation.

(i) Anything in this Agreement to the contrary notwithstanding, if the amount of any compensation, payment, acceleration, benefit, or distribution by the Company to or for the benefit of the Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise, calculated in a manner consistent with Section 280G of the Internal Revenue Code of 1986, as amended (the "**Code**") and the applicable regulations thereunder (the "**Severance Payments**"), would be subject to the excise tax imposed by Section 4999 of the Code, then the Severance Payments will be reduced (but not below zero) to the extent necessary so that the sum of all Severance Payments does not exceed the Threshold Amount (defined below), but if the after-tax amount the Executive would receive if there were no reduction pursuant to this section (including any federal, state, and local taxes) exceeds the after-tax amount the Executive would receive if the Severance Payments were reduced below the Threshold Amount, the Severance Payments will no longer be so reduced. If Severance Payments are required to be reduced, the Severance Payments will be reduced in the following order: (1) cash payments not subject to Section 409A of the Code; (2) cash payments subject to Section 409A of the Code; (3) equity-based payments and acceleration; and (4) non- cash forms of benefits.

(ii) For the purposes of this Section 6(c), "**Threshold Amount**" means three times the Executive's "base amount" within the meaning of Section 280G(b)(3) of the Code and the regulations promulgated thereunder less one dollar (\$1.00).

(iii) The determinations under this Section 6(c) will be made by a nationally recognized accounting firm selected by the Company (the "**Accounting Firm**"), which must provide detailed supporting calculations both to the Company and the Executive within 15 business days of the Date of Termination, if applicable, or at such earlier time as is reasonably requested by the Company or the Executive.

(c) Change in Control Definition. For purposes of this Section 6, “**Change in Control**” means the consummation of any of the following:

(i) the sale of all or substantially all of the assets of the Company or the Parent to an unrelated person or entity;

(ii) a merger, reorganization, or consolidation involving the Company or the Parent in which the shares of voting stock outstanding immediately prior to the transaction represent or are converted into or exchanged for securities of the surviving or resulting entity that, immediately upon completion of the transaction, represent less than 50% of the outstanding voting power of the surviving or resulting entity;

(iii) the acquisition of all or a majority of the outstanding voting stock of the Company or the Parent in a single transaction or a series of related transactions by a person or group of persons; or

(iv) any other acquisition of the business of the Company or the Parent, as determined by the Board;

but the Company’s initial public offering, any subsequent public offering, or another capital raising event, or a merger effected solely to change the Company’s domicile does not constitute a Change in Control.

Section 7. Section 409A Compliance. The following rules shall apply, to the extent necessary, with respect to distribution of the payments and benefits, if any, to be provided to the Executive under this Agreement. Subject to the provisions in this Section, the severance payments pursuant to this Agreement shall begin only upon the date of the Executive’s “separation from service” (determined as set forth below) which occurs on or after the date of the Executive’s termination of employment.

(a) This Agreement is intended to comply with Code Section 409A (to the extent applicable) and the parties hereto agree to interpret, apply and administer this Agreement in the least restrictive manner necessary to comply therewith and without resulting in any increase in the amounts owed hereunder by the Company.

(b) It is intended that each installment of the severance payments and benefits provided under this Agreement shall be treated as a separate “payment” for purposes of Section 409 A of the Internal Revenue Code of 1986, as amended, and the guidance issued thereunder (“Section 409A”). Neither the Executive nor the Company shall have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A.

(c) If, as of the date of the Executive’s “separation from service” from the Company, the Executive is not a “specified employee” (within the meaning of Section 409 A), then each installment of the severance payments and benefits shall be made on the dates and terms set forth in this Agreement.

(d) If, as of the date of the Executive's "separation from service" from the Company, the Executive is a "specified employee" (within the meaning of Section 409A), then:

(i) Each installment of the severance payments and benefits due under this Agreement that, in accordance with the dates and terms set forth herein, will in all circumstances, regardless of when the separation from service occurs, be paid within the short-term deferral period (as defined in Section 409A) shall be treated as a short-term deferral within the meaning of Treasury Regulation Section 1.409A-1(b)(4) to the maximum extent permissible under Section 409A; and

(ii) Each installment of the severance payments and benefits due under this Agreement that is not described in Section 7(d)(i) above and that would, absent this subsection, be paid within the six-month period following the Executive's "separation from service" from the Company shall not be paid until the date that is six months and one day after such separation from service (or, if earlier, the Executive's death), with any such installments that are required to be delayed being accumulated during the six-month period and paid in a lump sum on the date that is six months and one day following the Executive's separation from service and any subsequent installments, if any, being paid in accordance with the dates and terms set forth herein; provided, however, that the preceding provisions of this sentence shall not apply to any installment of severance payments and benefits if and to the maximum extent that such installment is deemed to be paid under a separation pay plan that does not provide for a deferral of compensation by reason of the application of Treasury Regulation 1.409A-1 (b)(9)(iii) (relating to separation pay upon an involuntary separation from service). Any installments that qualify for the exception under Treasury Regulation Section 1.409A-1(b)(9)(iii) must be paid no later than the last day of the second taxable year following the taxable year in which the separation from service occurs.

(e) The determination of whether and when the Executive's separation from service from the Company has occurred shall be made in a manner consistent with, and based on the presumptions set forth in, Treasury Regulation Section 1.409A-1(h). Solely for purposes of this Section, "Company" shall include all persons with whom the Company would be considered a single employer as determined under Treasury Regulation Section 1.409A-1(h)(3).

(f) All reimbursements and in-kind benefits provided under this Agreement shall be made or provided in accordance with the requirements of Section 409A to the extent that such reimbursements or in-kind benefits are subject to Section 409A, including, where applicable, the requirements that (i) any reimbursement is for expenses incurred during the Executive's lifetime (or during a shorter period of time specified in this Agreement), (ii) the amount of expenses eligible for reimbursement during a calendar year may not affect the expenses eligible for reimbursement in any other calendar year, (iii) the reimbursement of an eligible expense will be made on or before the last day of the calendar year following the year in which the expense is incurred and (iv) the right to reimbursement is not subject to set off or liquidation or exchange for any other benefit.

(g) Notwithstanding anything herein to the contrary, the Company shall have no liability to the Executive or to any other person if the payments and benefits provided in this

Agreement that are intended to be exempt from or compliant with Section 409A are not so exempt or compliant.

Section 8. Confidential Information. Employee agrees to enter into the Company's standard Employee Confidentiality and Proprietary Rights Agreement (the "Confidential Information Agreement"). Employee's receipt of any benefits in connection with or following Employee's termination will be subject to Employee continuing to comply with the terms of Confidential Information Agreement.

Section 9. Cooperation; Other Documents; Non-Disclosure.

(a) Litigation and Regulatory Cooperation. During and after the Executive's employment, the Executive shall reasonably cooperate with the Company in the defense or prosecution of any claims or actions now in existence or which may be brought in the future against or on behalf of the Company which relate to events or occurrences that took place while the Executive was employed by the Company. The Executive's reasonable cooperation in connection with such claims or actions includes, but is not limited to, being available to meet with counsel to prepare for discovery or trial and to act as a witness on behalf of the Company at mutually convenient times. During and after the Executive's employment, the Executive also shall reasonably cooperate with the Company in connection with any investigation or review of any federal, state, or local regulatory authority as any such investigation or review relates to events or occurrences that took place while the Executive was employed by the Company. The Company shall reasonably compensate Executive, in its sole discretion, for his time spent, and reimburse the Executive for any reasonable out-of-pocket expenses incurred, in connection with the Executive's performance of obligations pursuant to this Section 9(a) Non-Disclosure. The Executive shall use his reasonable efforts to maintain the confidentiality of the terms of this Agreement to the extent permitted by law, but the Executive may disclose the terms of this Agreement to the extent it is concerted activity under Section 7 of the National Labor Relations Act and to his immediate family members and to his legal, tax, and other advisors.

Section 10. Arbitration of Disputes.

(b) Scope of Arbitration Requirement. The Executive hereby waives his right to a trial before a judge or jury and agrees to arbitrate before a neutral arbitrator skilled in hearing similar disputes any and all claims or disputes arising out of this Agreement and any and all claims arising from or relating to his employment, including but not limited to claims against any current or former employee, director, or agent of the Company, claims of wrongful termination, retaliation, discrimination, harassment, breach of contract (including but not limited to disputes pertaining to the formation, validity, interpretation or effect of this Agreement), breach of the covenant of good faith and fair dealing, defamation, invasion of privacy, fraud, misrepresentation, constructive discharge or failure to provide a leave of absence, or claims regarding commissions, stock options or bonuses, infliction of emotional distress, or unfair business practices (each an "Arbitrable Dispute"). Arbitration is the exclusive remedy for any Arbitrable Dispute, instead of any court or administrative action, unless the waiver of a certain court or administrative action is prohibited by law. Except as otherwise required under applicable law, the Executive hereby waives any right to assert an Arbitrable Dispute as a class action or

representative action claim against the Company and agrees to only submit the Executive's own, individual claims in arbitration and will not seek to represent the interests of any other person.

(c) Procedure. Any arbitration will be administered by the American Arbitration Association (“**AAA**”) and the neutral arbitrator will be selected in a manner consistent with AAA’s National Rules For The Resolution of Employment Disputes (“**Applicable Arbitration Rules**”). Any arbitration under this Agreement must be conducted in the Commonwealth of Pennsylvania, and the arbitrator must administer and conduct the arbitration in accordance with the Applicable Arbitration Rules, except that (i) the arbitrator must allow for the discovery authorized by the Pennsylvania Rules of Civil Procedure or the discovery that the arbitrator decides is necessary for the Parties to vindicate their respective claims or defenses, and (ii) presentation of evidence will be governed by the Pennsylvania Rules of Evidence. Within a reasonable time after the conclusion the arbitration proceedings, the arbitrator shall issue a written decision and must include the findings of fact and law that support that decision. The arbitrator has the power to award any remedies available under applicable law, and the arbitrator’s decision is final and binding on both Parties, except to the extent applicable law allows for judicial review of arbitration awards.

(d) Costs. The Company shall bear all the costs of arbitration, except that the Executive shall pay the first \$125.00 of any filing fees associated with any arbitration the Executive initiates. Both Parties are responsible for their own attorneys’ fees, and the arbitrator may not award attorneys’ fees unless a statute or contract at issue specifically authorizes such an award.

(e) Applicability. This Section 10, does not apply to (i) workers’ compensation or unemployment insurance claims or (ii) claims concerning ownership, validity, infringement, misappropriation, disclosure, misuse, or enforceability of any confidential information, patent right, copyright, mask work, trademark, or any other trade secret or intellectual property held or sought by either the Executive or the Company.

(f) Remedy. Should any party institute any legal action or administrative proceeding against the other with respect to any claim waived by this Agreement or pursue any Arbitrable Dispute by any method other than as set forth above, except to enforce the arbitration provisions and as expressly provided for in this Section 9, the responding party is entitled to recover from the initiating party all damages, costs, expenses, and attorneys’ fees incurred as a result of that action.

Section 11. Consent to Jurisdiction. To the extent that any court action is initiated to enforce Section 10 of this Agreement, the Parties hereby consent to the jurisdiction of any state court in the Commonwealth of Pennsylvania and any U.S. District Court sitting in the Commonwealth of Pennsylvania. Accordingly, with respect to any such court action, the Executive (a) submits to the personal jurisdiction of such courts; (b) consents to service of process; and (c) waives any other requirement (whether imposed by statute, rule of court, or otherwise) with respect to personal jurisdiction or service of process.

Section 12. Integration. This Agreement, together with the Confidential Information Agreement executed concurrently herewith, constitute the entire agreement between the Parties

with respect to the subject matter hereof and supersedes all prior agreements between the Parties concerning such subject matter. Without limiting the foregoing, the parties agree that any employment agreement, other than this Agreement, existing between the Parties as of the date hereof is hereby terminated and shall be of no force of effect.

Section 13. Withholding. All payments made by the Company to the Executive under this Agreement will be net of any tax or other amounts lawfully withheld by the Company under applicable law. Nothing in this Agreement is to be construed to obligate the Company to design or implement any compensation arrangement in a way that minimizes tax consequences for the Executive.

Section 14. Successor to the Executive. This Agreement inures to the benefit of and is enforceable by the Executive's personal representatives, executors, administrators, heirs, distributees, devisees, and legatees. If the Executive dies after his termination of employment but prior to the completion by the Company of all payments due him under this Agreement, the Company shall continue the payments to the Executive's beneficiary designated in writing to the Company prior to his death (or to his estate, if the Executive fails to make such a designation).

Section 15. Enforceability. If any portion or provision of this Agreement is declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of that portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, will not be affected by that declaration, and each portion and provision of this Agreement will continue to be valid and enforceable to the fullest extent permitted by law.

Section 16. Survival. The provisions of this Agreement survive the termination of this Agreement and/or the termination of the Executive's employment to the extent necessary to effectuate the intent of the Parties as expressed in this Agreement.

Section 17. Waiver. No waiver of any provision of this Agreement is effective unless made in writing and signed by the waiving party, and, in the case of the Company only after the waiver has been specifically approved by the Board. The failure of either party to require the performance of any term or obligation of this Agreement, or the waiver by either party of any breach of this Agreement, will not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

Section 18. Notices. Any notices, requests, demands, and other communications provided for by this Agreement are sufficient if in writing and delivered in person or sent by a nationally recognized overnight courier service or by registered or certified mail, postage prepaid, return receipt requested, to the Executive at the last address the Executive has filed in writing with the Company or, in the case of the Company, at its main offices, attention to the Corporate Secretary.

Section 19. Amendment. This Agreement may be amended or modified only by a written instrument signed by the Executive and by a duly authorized representative of the Company.

Section 20. Governing Law. This is a Pennsylvania contract and is to be construed under and be governed in all respects by the laws of the Commonwealth of Pennsylvania without giving effect to the conflict of laws principles of that state.

Section 21. Counterparts. This Agreement may be executed in any number of counterparts, and by each party on separate counterparts, each of which counterparts, when so executed and delivered is to be taken to be an original; but those counterparts together constitute one and the same document. PDF, facsimile, scanned, and electronic signatures have the same legal effect as original ink signatures.

Section 22. Successor to Company. The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation, or otherwise) to all or substantially all of the business or assets of the Company expressly to assume and agree to perform this Agreement to the same extent that the Company would be required to perform it if no succession had taken place. Failure of the Company to obtain an assumption of this Agreement at or prior to the effectiveness of any succession is a material breach of this Agreement.

Section 23. Voluntary Nature of Agreement. The Executive acknowledges and agrees that he is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. The Executive further acknowledges and agrees that he has carefully read this Agreement and that he has asked any questions needed for him to fully understand the terms, consequences, and binding effect of this Agreement. The Executive agrees that he has been provided an opportunity to seek the advice of an attorney of his choice before signing this Agreement.

[Signature Page Follows]

The Parties are executing this Executive Agreement as of the date set forth in the introductory paragraph.



[Signature Page intentionally omitted to Executive Employment Agreement]

EXHIBIT A

GENERAL RELEASE LANGUAGE

The Executive agrees, for himself, his spouse, heirs, executor or administrator, assigns, insurers, attorneys, and other persons or entities acting or purporting to act on his behalf (the "Executive's Parties"), to irrevocably and unconditionally release, acquit, and forever discharge the Company, its affiliates, subsidiaries, directors, officers, employees, shareholders, partners, agents, representatives, predecessors, successors, assigns, insurers, attorneys, benefit plans sponsored by the Company, and said plans' fiduciaries, agents and trustees (the "Company's Parties"), from any and all actions, causes of action, suits, claims, obligations, liabilities, debts, demands, contentions, damages, judgments, levies, and executions of any kind, whether in law or in equity, known or unknown, which the Executive's Parties have, have had, or may in the future claim to have against the Company's Parties by reason of, arising out of, related to, or resulting from the Executive's employment with the Company or the termination of that employment.

This release specifically includes without limitation any claims arising in tort or contract, any claim based on wrongful discharge, any claim based on breach of contract, any claim arising under federal, state or local law prohibiting race, sex, age, religion, national origin, handicap, disability, or other forms of discrimination, any claim arising under federal, state, or local law concerning employment practices, and any claim relating to compensation or benefits. This specifically includes, without limitation, any claim that the Executive has or has had under Title VII of the Civil Rights Act of 1964, as amended, the Age Discrimination in Employment Act, as amended, the Americans with Disabilities Act, as amended, and the Employee Retirement Income Security Act of 1974, as amended. It is understood and agreed that the waiver of benefits and claims contained in this section does not include a waiver of the right to payment of any vested, nonforfeitable benefits to which the Executive or a beneficiary of the Executive may be entitled under the terms and provisions of any employee benefit plan of the company which have accrued as of the Date of Termination, and does not include a waiver of the right to benefits and payment of consideration to which the Executive may be entitled under this Agreement or any of the agreements contemplated by this Agreement (including the indemnification agreement and the stock option agreement). The Executive acknowledges that he is entitled to only the severance benefits and compensation set forth in this Agreement, and that all other claims for any other benefits or compensation are hereby waived, except those expressly stated in the preceding sentence.

The Executive hereby acknowledges his understanding that under this Agreement he is releasing any known or unknown claims he may have.

The Executive expressly waives and relinquishes all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to his release of claims.

**EXHIBIT B EXISTING CONFLICTS**

If applicable, Executive to describe, in specific terms, any ongoing business relationship with any organization. Please provide a copy of any agreement(s) you might have with said organization(s) that creates a business relationship described in Section 3 (d).

May 28, 2018

Mr. David Hastings  
Delivered by email:

Dear David,

**Re: Signing Bonus**

Further to our discussions and the employment offer outlined in the attached Executive Employment Agreement between you and Arbutus Biopharma, Inc. ("Arbutus" or the "Company"), effective June 11, 2018 (the "Start Date"), I am pleased to offer a signing bonus as follows:

Should you accept the terms of the Executive Employment Agreement and commence employment on the Start Date, you will be eligible for a \$75,000.00 signing bonus, to be paid on the first scheduled payday following completion of your first month of employment, subject to required withholdings. You agree that should you resign your position with Arbutus within eighteen (18) months of your Start Date, you will repay the signing bonus paid, net of taxes.

If you are in agreement with these terms, please sign where indicated below and return a signed copy of this letter to my attention. Should you have any questions regarding this letter, the Executive Employment Agreement, or anything else, please do not hesitate to call me.

Best regards,

Mark Murray  
President and Chief Executive Officer

**ACCEPTED AND AGREED:**

DAVID HASTINGS

—

(Signature)

—

Date

