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, 2021

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	**98-0597776**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

701 Veterans Circle, Warminster, PA 18974

(Address of Principal Executive Offices and Zip Code)

267-469-0914

(Registrant's Telephone Number, Including Area Code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares, without par value	ABUS	The Nasdaq Stock Market LLC

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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	Accelerated filer	Non-accelerated filer	Smaller reporting company	Emerging growth 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 ☒

As of August 3, 2021, the registrant had 99,161,234 common shares, without par value, outstanding.

ARBUTUS BIOPHARMA CORPORATION

Page

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS (UNAUDITED)

ARBUTUS BIOPHARMA CORPORATION

Condensed Consolidated Balance Sheets
(Unaudited)
(In thousands of U.S. Dollars, except share and per share amounts)

	June 30, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 30,954	$ 52,251
Investments in marketable securities, current	47,425	71,017
Accounts receivable	1,298	1,312
Prepaid expenses and other current assets	3,789	3,124
Total current assets	83,466	127,704
Property and equipment, net of accumulated depreciation of $(8,499) (December 31, 2020: $7,621)	6,779	6,927
Investments in marketable securities, non-current	42,906	—
Right of use asset	2,225	2,405
Other non-current assets	—	44
Total assets	$ 135,376	$ 137,080
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities	$ 8,352	$ 8,901
Liability-classified options	132	250
Lease liability, current	357	390
Total current liabilities	8,841	9,541
Liability related to sale of future royalties	18,982	19,554
Contingent consideration	4,249	3,426
Lease liability, non-current	2,475	2,593
Total liabilities	34,547	35,114
Stockholders' equity		
Preferred shares		
Authorized: unlimited number without par value		
Issued and outstanding: 1,164,000 (December 31, 2020: 1,164,000)	155,886	149,408
Common shares		
Authorized: unlimited number without par value		
Issued and outstanding: 97,700,016 (December 31, 2020: 89,678,722)	1,017,416	985,939
Additional paid-in capital	63,933	60,751
Deficit	(1,088,207)	(1,045,961)
Accumulated other comprehensive loss	(48,199)	(48,171)
Total stockholders' equity	100,829	101,966
Total liabilities and stockholders' equity	$ 135,376	$ 137,080

See accompanying notes to the condensed consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Condensed Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)
(In thousands of U.S. Dollars, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Revenue				
Collaborations and licenses	$ 1,185	$ 825	$ 2,339	$ 1,660
Non-cash royalty revenue	1,144	689	2,103	1,345
Total Revenue	2,329	1,514	4,442	3,005
Operating expenses				
Research and development	15,396	10,465	28,766	20,881
General and administrative	4,445	3,566	8,292	7,119
Depreciation	436	501	879	1,001
Change in fair value of contingent consideration	694	116	823	228
Site consolidation	—	7	—	64
Total operating expenses	20,971	14,655	38,760	29,293
Loss from operations	(18,642)	(13,141)	(34,318)	(26,288)
Other income (loss)				
Interest income	31	200	70	545
Interest expense	(763)	(1,099)	(1,535)	(2,140)
Foreign exchange (loss) gain	(13)	(47)	15	(65)
Total other loss	(745)	(946)	(1,450)	(1,660)
Loss before income taxes	(19,387)	(14,087)	(35,768)	(27,948)
Net loss	(19,387)	(14,087)	(35,768)	(27,948)
Items applicable to preferred shares:				
Dividend accretion of convertible preferred shares	(3,266)	(2,995)	(6,478)	(5,973)
Net loss attributable to common shares	$ (22,653)	$ (17,082)	$ (42,246)	$ (33,921)
Loss per share				
Basic and diluted	$ (0.23)	$ (0.25)	$ (0.44)	$ (0.49)
Weighted average number of common shares				
Basic and diluted	96,869,805	69,604,726	95,153,545	68,656,566
Comprehensive income (loss)				
Unrealized (loss) gain on available-for-sale securities	$ (31)	$ 122	$ (28)	$ 130
Comprehensive loss	$ (19,418)	$ (13,965)	$ (35,796)	$ (27,818)

See accompanying notes to the condensed consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Condensed Consolidated Statement of Stockholders' Equity
(Unaudited)
(In thousands of U.S. Dollars, except share and per share amounts)

	Convertible Preferred Shares		Common Shares					
	Number of Shares	Share Capital	Number of Shares	Share Capital	Additional Paid-In Capital	Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance December 31, 2020	1,164,000	$ 149,408	89,678,722	$ 985,939	$ 60,751	$ (1,045,961)	$ (48,171)	$ 101,966
Accretion of accumulated dividends on Preferred Shares	—	3,212	—	—	—	(3,212)	—	—
Stock-based compensation	—	—	—	—	1,647	—	—	1,647
Certain fair value adjustments to liability stock option awards	—	—	—	—	40	—	—	40
Issuance of common shares pursuant to the Open Market Sale Agreement	—	—	6,395,780	26,419	—	—	—	26,419
Issuance of common shares pursuant to exercise of options	—	—	65,952	335	(127)	—	—	208
Issuance of common shares pursuant to ESPP	—	—	104,917	425	(178)	—	—	247
Unrealized gain on available-for-sale securities	—	—	—	—	—	—	3	3
Net loss	—	—	—	—	—	(16,381)	—	(16,381)
Balance March 31, 2021	1,164,000	$ 152,620	96,245,371	$ 1,013,118	$ 62,133	$ (1,065,554)	$ (48,168)	$ 114,149
Accretion of accumulated dividends on Preferred Shares	—	3,266	—	—	—	(3,266)	—	—
Stock-based compensation	—	—	—	—	1,758	—	—	1,758
Certain fair value adjustments to liability stock option awards	—	—	—	—	51	—	—	51
Issuance of common shares pursuant to the Open Market Sale Agreement	—	—	1,450,145	4,274	—	—	—	4,274
Issuance of common shares pursuant to exercise of options	—	—	4,500	24	(9)	—	—	15
Unrealized loss on available-for-sale securities	—	—	—	—	—	—	(31)	(31)
Net loss	—	—	—	—	—	(19,387)	—	(19,387)
Balance June 30, 2021	1,164,000	$ 155,886	97,700,016	$ 1,017,416	$ 63,933	$ (1,088,207)	$ (48,199)	$ 100,829

See accompanying notes to the condensed consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Condensed Consolidated Statement of Stockholders' Equity
(Unaudited)
(In thousands of U.S. Dollars, except share and per share amounts)

	Convertible Preferred Shares		Common Shares					
	Number of Shares	Share Capital	Number of Shares	Share Capital	Additional Paid-In Capital	Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance December 31, 2019	1,164,000	137,285	64,780,314	$ 898,535	$ 55,246	$ (970,093)	$ (48,229)	$ 72,744
Accretion of accumulated dividends on Preferred Shares	—	2,978	—	—	—	(2,978)	—	—
Stock-based compensation	—	—	—	—	1,460	—	—	1,460
Certain fair value adjustments to liability stock option awards	—	—	—	—	180	—	—	180
Issuance of common shares pursuant to the Open Market Sale Agreement	—	—	4,147,081	12,315	—	—	—	12,315
Issuance of common shares pursuant to exercise of options	—	—	34,000	249	(83)	—	—	166
Unrealized gain on available-for-sale securities	—	—	—	—	—	—	252	252
Net loss	—	—	—	—	—	(13,861)	—	(13,861)
Balance March 31, 2020	1,164,000	$ 140,263	68,961,395	$ 911,099	$ 56,803	$ (986,932)	$ (47,977)	$ 73,256
Accretion of accumulated dividends on Preferred Shares	—	2,995	—	—	—	(2,995)	—	—
Stock-based compensation	—	—	—	—	1,597	—	—	1,597
Certain fair value adjustments to liability stock option awards	—	—	—	—	(92)	—	—	(92)
Issuance of common shares pursuant to the Open Market Sale Agreement	—	—	2,291,184	5,045	—	—	—	5,045
Issuance of common shares pursuant to exercise of options	—	—	4,000	(78)	(8)	—	—	(86)
Unrealized gain on available-for-sale securities	—	—	—	—	—	—	(122)	(122)
Net loss	—	—	—	—	—	(14,087)	—	(14,087)
Balance June 30, 2020	1,164,000	$ 143,258	71,256,579	$ 916,066	$ 58,300	$ (1,004,014)	$ (48,099)	$ 65,511

See accompanying notes to the condensed consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

Condensed Consolidated Statements of Cash Flow
(Unaudited)
(In thousands of U.S. Dollars)

	Six Months Ended June 30,	
	2021	**2020**
OPERATING ACTIVITIES		
Net loss	$ (35,768)	$ (27,948)
Non-cash items:		
Depreciation	879	1,001
Stock-based compensation expense	3,378	3,042
Unrealized foreign exchange losses (gains)	44	56
Change in fair value of contingent consideration	823	228
Non-cash royalty revenue	(2,103)	(1,345)
Non-cash interest expense	1,531	2,092
Net accretion and amortization of investments in marketable securities	453	40
Net change in operating items:		
Accounts receivable	14	96
Prepaid expenses and other assets	(441)	33
Accounts payable and accrued liabilities	(582)	(1,398)
Other liabilities	(118)	(151)
Net cash used in operating activities	(31,890)	(24,254)
INVESTING ACTIVITIES		
Purchase of investments	(54,145)	(25,912)
Disposition of investments	34,350	46,948
Acquisition of property and equipment	(731)	(66)
Net cash (used) provided by investing activities	(20,526)	20,970
FINANCING ACTIVITIES		
Issuance of common shares pursuant to the Open Market Sale agreement	30,693	17,360
Issuance of common shares pursuant to exercise of options	223	80
Issuance of common shares pursuant to ESPP	247	—
Net cash provided by financing activities	31,163	17,440
Effect of foreign exchange rate changes on cash and cash equivalents	(44)	(56)
(Decrease) increase in cash and cash equivalents	(21,297)	14,100
Cash and cash equivalents, beginning of period	52,251	31,799
Cash and cash equivalents, end of period	$ 30,954	$ 45,899
Supplemental cash flow information		
Preferred shares dividends accrued	$ (6,478)	$ (5,973)

See accompanying notes to the condensed consolidated financial statements.

1. Nature of business and future operations

Description of the Business

Arbutus Biopharma Corporation (the "Company" or "Arbutus") is a clinical-stage, biopharmaceutical company primarily focused on discovering, developing and commercializing a cure for people with chronic hepatitis B virus ("HBV") infection. The Company is advancing multiple product candidates with distinct mechanisms of action that it believes have the potential to provide a new curative regimen for chronic HBV infection. The Company has also initiated a drug discovery and development effort for treating coronaviruses, including COVID-19.

The Company's two lead product candidates are AB-729, the Company's proprietary subcutaneously-delivered RNA interference ("RNAi") product candidate that suppresses HBsAg expression, and AB-836, the Company's proprietary next-generation oral capsid inhibitor that suppresses HBV DNA replication. AB-729 is currently in an ongoing Phase 1a/1b clinical trial and a Phase 2a proof-of-concept clinical trial in collaboration with Assembly Biosciences, Inc. ("Assembly"). The Company is also evaluating AB-729 in combination with other agents with potentially complementary mechanisms of action in multiple Phase 2a proof-of-concept clinical trials. Additionally, the Company is enrolling subjects in a Phase 1a/1b clinical trial for AB-836 with initial data expected in the second half of 2021.

Liquidity

At June 30, 2021, the Company had an aggregate of $121.3 million in cash, cash equivalents and investments in marketable securities. The Company believes that these cash resources will be sufficient to fund its operations through the third quarter of 2022.

The success of the Company is dependent on obtaining the necessary regulatory approvals to bring its products to market and achieve profitable operations. The Company's research and development activities and the commercialization of its products are dependent on its 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 the Company's existing or future research and development programs or the Company's ability to continue to fund these programs in the future.

COVID-19 Impact

In December 2019 an outbreak of a novel strain of coronavirus (COVID-19) was identified in Wuhan, China. This virus continues to spread globally, has been declared a pandemic by the World Health Organization and has spread to nearly every country in the world. The impact of this pandemic has been, and will likely continue to be, extensive in many aspects of society. The pandemic has resulted in and will likely continue to result in significant disruptions to businesses. A number of countries and other jurisdictions around the world have implemented extreme measures to try and slow the spread of the virus. These measures include the closing of businesses and requiring people to stay in their homes, the latter of which raises uncertainty regarding the ability to travel to hospitals in order to participate in clinical trials. Additional measures that have had, and will likely continue to have, a major impact on clinical development, at least in the near-term, include shortages and delays in the supply chain, and prohibitions in certain countries on enrolling subjects in new clinical trials. While the Company has been able to progress with our clinical and pre-clinical activities to date, it is not possible to predict if the COVID-19 pandemic will materially impact the Company's plans and timelines in the future.

2. Significant accounting policies

Basis of presentation

These unaudited condensed consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles 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, 2020 included in the Company's Annual Report on Form 10-K for the year ended December 31, 2020 (the "2020 Form 10-K"). These unaudited condensed consolidated financial statements reflect, in the opinion of management, all adjustments and reclassifications necessary to fairly present the Company's financial position as of June 30, 2021 and 2020, the Company's results of operations for the three and six months ended June 30, 2021 and 2020, and the Company's cash flows for the six months ended June 30, 2021 and 2020. Such adjustments are of a normal recurring nature. The results of operations for the three and six months ended June 30, 2021 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, 2020, except as described below under Recent Accounting Pronouncements.

Principles of consolidation

These unaudited condensed consolidated financial statements include the accounts of the Company and its one wholly-owned subsidiary, Arbutus Biopharma Inc. ("Arbutus Inc."). All intercompany transactions and balances have been eliminated. Certain prior year amounts have been reclassified to conform to the current year presentation.

Net loss attributable to common shareholders per share

The Company follows the two-class method when computing net loss attributable to common shareholders per share as the Company has issued Series A participating convertible preferred shares ("Preferred Shares"), as further described in note 10. The Company's Preferred Shares are participating securities, as they entitle the holders to participate in dividends. However, the Company's Preferred Shares do not require the holders to participate in losses of the Company and accordingly, if the Company reports a net loss attributable to holders of the Company's common shares, net losses are not allocated to holders of the Preferred Shares.

Net loss attributable to common shareholders per share is calculated based on the weighted average number of common shares outstanding. Diluted net loss attributable to common shareholders per share does not differ from basic net loss attributable to common shareholders per share since the effect of the Company's stock options and convertible preferred stock was anti-dilutive. During the six months ended June 30, 2021 and 2020, potential common shares of 35.4 million and 31.3 million, respectively, consisting of the "if-converted" number of Preferred Shares and outstanding stock options, were excluded from the calculation of net loss per share because their inclusion would be anti-dilutive.

Revenue recognition

Accounting Standards Codification 606, Revenue From Contracts with Customers ("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 through certain collaboration agreements and license 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 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 the 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.

Segment information

The Company operates as a single segment.

Recent accounting pronouncements

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13, Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments (ASC 326). The guidance is effective for the Company beginning January 1, 2023 and it changes how entities account for credit losses on financial assets and other instruments that are not measured at fair value through net income, including available-for-sale debt securities. The Company is currently evaluating the impact of the new standard on its consolidated financial statements.

3. Fair value measurements

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

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

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

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

To determine the fair value of the contingent consideration (note 8), the Company uses a probability weighted assessment of the likelihood the milestones would be met and the estimated timing of such payments, and then the potential contingent payments were discounted to their present value using a probability adjusted discount rate that reflects the early stage nature of the development program, the time to complete the program development, and overall biotech indices. The Company determined the fair value of the contingent consideration was $4.2 million as of June 30, 2021 and the increase of $0.8 million from December 31, 2020 has been recorded as a component of total operating expenses in the statement of operations and comprehensive loss for the six months ended June 30, 2021. The assumptions used in the discounted cash flow model are level 3 inputs as defined above. The Company assessed the sensitivity of the fair value measurement to changes in these

unobservable inputs, and determined that changes within a reasonable range would not result in a materially different assessment of fair value.

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

As of June 30, 2021	Level 1	Level 2	Level 3	Total
	(in thousands)			
Assets				
Cash and cash equivalents	$ 30,954	$ —	$ —	$ 30,954
Short-term investments	47,425	—	—	47,425
Long-term investments	42,906	—	—	42,906
Total	121,285	—	—	121,285
Liabilities				
Liability-classified stock options	—	—	132	132
Contingent consideration	—	—	4,249	4,249
Total	$ —	$ —	$ 4,381	$ 4,381

As of December 31, 2020	Level 1	Level 2	Level 3	Total
	(in thousands)			
Assets				
Cash and cash equivalents	$ 52,251	$ —	$ —	$ 52,251
Short-term investments	71,017	—	—	71,017
Total	123,268	—	—	123,268
Liabilities				
Liability-classified stock options	—	—	250	250
Contingent consideration	—	—	3,426	3,426
Total	$ —	$ —	$ 3,676	$ 3,676

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

	Liability at beginning of the period	Fair value of liability-classified options exercised in the period	Increase (decrease) in fair value of liability	Liability at end of the period
	(in thousands)			
Six Months Ended June 30, 2021	$ 250	$ —	$ (118)	$ 132
Six Months Ended June 30, 2020	$ 253	$ —	$ (103)	$ 150

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

	Liability at beginning of the period	Increase (decrease) in fair value of liability	Liability at end of the period
	(in thousands)		
Six Months Ended June 30, 2021	$ 3,426	$ 823	$ 4,249
Six Months Ended June 30, 2020	$ 2,953	$ 228	$ 3,181

4. Investments in marketable securities

Investments in marketable securities consisted of the following:

As of June 30, 2021	Amortized Cost	Gross Unrealized Gain[1]	Gross Unrealized Loss[1]	Fair Value
	(in thousands)			
Cash equivalents				
US government money market fund	13,406	—	—	13,406
Total	$ 13,406	$ —	$ —	$ 13,406
Investments in marketable short-term securities				
US government agency bonds	$ 2,043	$ —	$ —	$ 2,043
US treasury bills	7,999	1	—	8,000
US government bonds	37,377	5	—	37,382
Total	$ 47,419	$ 6	$ —	$ 47,425
Investments in marketable long-term securities				
US government agency bonds	$ 12,281	$ —	$ (7)	$ 12,274
US treasury bills	$ —	$ —	$ —	$ —
US government bonds	$ 30,644	$ —	$ (12)	$ 30,632
Total	$ 42,925	$ —	$ (19)	$ 42,906

[1] Gross unrealized gain (loss) is pre-tax and is reported in other comprehensive loss.

As of December 31, 2020	Amortized Cost	Gross Unrealized Gain[1]	Gross Unrealized Loss[1]	Fair Value
	(in thousands)			
Cash equivalents				
US government money market fund	$ 13,703	$ —	$ —	$ 13,703
US treasury bills	2,000	—	—	2,000
Total	$ 15,703	$ —	$ —	$ 15,703
Investments in marketable short-term securities				
US government agency bonds	$ 11,550	$ 7	$ —	$ 11,557
US treasury bills	21,990	2	—	21,992
US government bonds	37,463	6	(1)	37,468
Total	$ 71,003	$ 15	$ (1)	$ 71,017

[1] Gross unrealized gain (loss) is pre-tax and is reported in other comprehensive loss.

The contractual term to maturity of the $47.4 million of short-term marketable securities held by the Company as of June 30, 2021 is less than one year. As of June 30, 2021, the Company held $42.9 million of long-term marketable securities with contractual maturities of more than one year, but less than five years. As of December 31, 2020, the Company's $71.0 million of marketable securities had contractual maturities of less than one year.

There were no realized gains or losses for the three and six months ended June 30, 2021 or 2020.

5. Investment in Genevant

In April 2018, the Company entered into an agreement with Roivant Sciences Ltd. (“Roivant”), its largest shareholder, to launch Genevant Sciences Ltd. (“Genevant”), a company focused on the discovery, development, and commercialization of a broad range of RNA-based therapeutics enabled by the Company’s lipid nanoparticle (“LNP”) and ligand conjugate delivery technologies. The Company licensed exclusive rights to its LNP and ligand conjugate delivery platforms to Genevant for RNA-based applications outside of HBV, except to the extent certain rights had already been licensed to other third parties (the “Genevant License”). The Company retained all rights to its LNP and conjugate delivery platforms for HBV. Under the Genevant License, the Company is entitled to receive tiered low single-digit royalties on future sales of Genevant products covered by the licensed patents. If Genevant sub-licenses the intellectual property licensed by the Company to Genevant, the Company is entitled to receive under the Genevant License, upon the commercialization of a product developed by such sub-licensee, the lesser of (i) twenty percent of the revenue received by Genevant for such sublicensing and (ii) tiered low single-digit royalties on product sales by the sublicensee.

On July 31, 2020, Roivant recapitalized Genevant through an equity investment and conversion of previously issued convertible debt securities held by Roivant. In addition, the Company participated in the recapitalization of Genevant with an investment of $2.5 million. The Company determined that this $2.5 million additional investment in Genevant represented the funding of prior losses and accordingly, the Company recorded the amount as an equity investment loss on the Condensed Consolidated Statements of Operations and Comprehensive Loss in 2020.

Following the recapitalization, the Company owned approximately 16% of the common equity of Genevant. In connection with the recapitalization, Genevant, the Company and Roivant entered into an Amended and Restated Shareholders Agreement that provides Roivant with substantial control of Genevant. The Company has a non-voting observer seat on Genevant’s Board of Directors. Due to the Company’s loss of significant influence with respect to Genevant as a result of the recapitalization, the Company discontinued the use of the equity method of accounting for its interest in Genevant. Following the recapitalization, the Company accounts for its interest in Genevant as equity securities without readily determinable fair values. Accordingly, an estimate of the fair value of the securities is based on the original cost less previously recognized equity method losses, less impairments, plus or minus changes resulting from observable price changes in orderly transactions for identical or a similar Genevant securities. The Company’s entitlement to receive future royalties or sublicensing revenue under the Genevant License was not impacted by the recapitalization.

As of June 30, 2021, the carrying value of the Company’s investment in Genevant was zero and the Company owned approximately 16% of the common equity of Genevant.

6. Accounts payable and accrued liabilities

Accounts payable and accrued liabilities are comprised of the following:

	June 30, 2021	December 31, 2020
	(in thousands)	
Trade accounts payable	$ 2,063	$ 2,994
Research and development accruals	3,988	1,653
Professional fee accruals	443	679
Payroll accruals	1,856	3,566
Other accrued liabilities	2	9
Total accounts payable and accrued liabilities	$ 8,352	$ 8,901

7. Sale of future royalties

On July 2, 2019, the Company entered into a Purchase and Sale Agreement (the “Agreement”) with the Ontario Municipal Employees Retirement System (“OMERS”), pursuant to which the Company sold to OMERS part of its royalty interest on future global net sales of ONPATTRO® (Patisiran) (“ONPATTRO”), an RNA interference therapeutic currently being sold by Alnylam Pharmaceuticals, Inc. (“Alnylam”).

ONPATTRO utilizes the Company's LNP technology, which was licensed to Alnylam pursuant to the Cross-License Agreement, dated November 12, 2012, by and between the Company and Alnylam (the "LNP License Agreement"). Under the terms of the LNP License Agreement, the Company is entitled to tiered royalty payments on global net sales of ONPATTRO ranging from 1.00% to 2.33% after offsets, with the highest tier applicable to annual net sales above $500 million. This royalty interest was sold to OMERS, effective as of January 1, 2019, for $20 million in gross proceeds before advisory fees. OMERS will retain this entitlement until it has received $30 million in royalties, at which point 100% of such royalty interest on future global net sales of ONPATTRO will revert to the Company. OMERS has assumed the risk of collecting up to $30 million of future royalty payments from Alnylam and the Company is not obligated to reimburse OMERS if they fail to collect any such future royalties.

The $30 million in royalties to be paid to OMERS is accounted for as a liability, with the difference between the liability and the gross proceeds received accounted for as a discount. The discount, as well as $1.5 million of transaction costs, will be amortized as interest expense based on the projected balance of the liability as of the beginning of each period. As of June 30, 2021, the Company estimated an effective annual interest rate of approximately 16%. Over the course of the Agreement, the actual interest rate will be affected by the amount and timing of royalty revenue recognized and changes in the timing of forecasted royalty revenue. On a quarterly basis, the Company will reassess the expected timing of the royalty revenue, recalculate the amortization and effective interest rate and adjust the accounting prospectively as needed.

The Company recognizes non-cash royalty revenue related to the sales of ONPATTRO during the term of the Agreement. As royalties are remitted to OMERS from Alnylam, the balance of the recognized liability is effectively repaid over the life of the Agreement. From the inception of the royalty sale through June 30, 2021, the Company has recorded an aggregate of $7.2 million of non-cash royalty revenue for royalties earned by OMERS. There are a number of factors that could materially affect the amount and timing of royalty payments from Alnylam, none of which are within the Company's control.
The table below shows the activity related to the net liability for the six months ended June 30, 2021 and 2020:

	Six Months Ended June 30,	
	2021	2020
	(in thousands)	
Net liability related to sale of future royalties - beginning balance	$ 19,554	$ 18,992
Non-cash royalty revenue	(2,103)	(1,345)
Non-cash interest expense	1,531	2,092
Net liability related to sale of future royalties - ending balance	$ 18,982	$ 19,739

In addition to the royalty from the LNP License Agreement, the Company is also receiving a second, lower royalty interest on global net sales of ONPATTRO originating from a settlement agreement and subsequent license agreement with Acuitas Therapeutics, Inc. ("Acuitas"). The royalty from Acuitas has been retained by the Company and was not part of the royalty sale to OMERS.

8. Contingencies and commitments

Arbitration with the University of British Columbia

Certain early work on lipid nanoparticle delivery systems and related inventions was undertaken at the University of British Columbia ("UBC"), as well as by the Company that was subsequently assigned to UBC. These inventions are licensed to the Company by UBC under a license agreement, initially entered into in 1998 and as amended in 2001, 2006 and 2007. The Company has granted sublicenses under the UBC license to certain third parties, including Alnylam. In November 2014, UBC filed a demand for arbitration against the Company which alleged entitlement to unpaid royalties. In August 2019, the arbitrator issued his decision for the second phase of the arbitration, awarding UBC $5.9 million, which included interest of approximately $2.6 million. The Company paid the $5.9 million award to UBC in September 2019 and paid an additional $0.2 million award for costs and attorneys' fees in March 2021, and this matter is now fully resolved.

On December 18, 2020, UBC delivered to the Company a notice of arbitration alleging that under the cross license between UBC and Arbutus, it is due royalties of $2.0 million plus interest arising from the Company's sale to OMERS of part of its royalty interest on future global net sales of ONPATTRO, currently being sold by Alnylam. Oral hearings for this matter are currently scheduled to begin on April 25, 2022. The Company does not believe that any royalties are due to UBC and the Company intends to vigorously contest UBC's allegation.

Stock Purchase Agreement with Enantigen

In October 2014, Arbutus Inc., the Company's wholly-owned subsidiary, acquired all of the outstanding shares of Enantigen Therapeutics, Inc. ("Enantigen") pursuant to a stock purchase agreement. The amount paid to Enantigen's selling shareholders could be up to an additional $102.5 million in sales performance milestones in connection with the sale of the first commercialized product by the Company for the treatment of HBV, regardless of whether such product is based upon assets acquired under this agreement, and a low single-digit royalty on net sales of such first commercialized HBV product, up to a maximum royalty payment of $1.0 million that, if paid, would be offset against the Company's milestone payment obligations. Certain other development milestones related to the acquisition were tied to programs which are no longer under development by the Company, and therefore the contingency related to those development milestones is zero.

The contingent consideration is a financial liability and is measured at its fair value at each reporting period, with any changes in fair value from the previous reporting period recorded in the statements of operations and comprehensive loss (see note 3).

The fair value of the contingent consideration was $4.2 million as of June 30, 2021.

9. Collaborations, contracts and licensing agreements

Vaccitech plc

In July 2021, the Company entered into a clinical collaboration agreement with Vaccitech plc ("Vaccitech") to evaluate the safety, pharmacokinetics, immunogenicity, and antiviral activity of AB-729 followed by Vaccitech's proprietary immunotherapeutic, VTP-300, in nucleos(t)ide reverse transcriptase inhibitor-suppressed subjects with chronic HBV infection ("CHB"). The Phase 2a clinical trial will be managed by Arbutus, subject to oversight by a joint development committee comprised of representatives from Arbutus and Vaccitech. Arbutus and Vaccitech retain full rights to their respective product candidates and will split all costs associated with the clinical trial. Pursuant to the agreement, the parties intend to undertake a larger Phase 2b clinical trial depending on the results of the initial Phase 2a clinical trial. The collaboration with Vaccitech is within the scope of the collaborative arrangements guidance and reimbursements and cost-sharing proceeds will be reflected as reductions of research and development expense when realized in the Company's condensed consolidated statements of operations.

Antios Therapeutics, Inc.

In June 2021, the Company entered into a clinical collaboration agreement with Antios Therapeutics, Inc. ("Antios") to evaluate a triple combination of AB-729, Antios' proprietary active site polymerase inhibitor nucleotide (ASPIN), ATI-2173, and Viread (tenofovir disoproxil fumarate), for the treatment of subjects with chronic HBV infection. Antios will be responsible for the costs of adding this single cohort to its ongoing Phase 2a ANTT201 clinical trial. Arbutus will be responsible for the manufacture and supply of AB-729. Except to the extent necessary to carry out Antios' responsibilities with respect to the collaboration trial, the Company has not provided any license grant to Antios for use of its AB-729 compound.

Assembly Biosciences, Inc.

In August 2020, the Company entered into a clinical collaboration agreement with Assembly to evaluate AB-729 in combination with Assembly's lead HBV core inhibitor (capsid inhibitor) candidate vebicorvir ("VBR") and standard-of-care NA therapy for the treatment of subjects with chronic HBV infection. The Company and Assembly are sharing in the costs of the collaboration. The Company incurred $0.4 million and $1.2 million of costs related to the collaboration during the three and six months ended June 30, 2021 and reflected those costs in research and development in the statement of operations and comprehensive loss. Except to the extent necessary to carry out Assembly's responsibilities with respect to the collaboration trial, the Company has not provided any license grant to Assembly for use of its AB-729 compound.

X-Chem and Proteros

In March 2021, the Company, X-Chem, Inc. ("X-Chem") and Proteros biostructures GmbH ("Proteros") entered into a discovery research and license agreement focused on the discovery of novel inhibitors targeting the SARS-CoV-2 nsp5 main protease (M^{pro}). The agreement is designed to accelerate the development of pan-coronavirus agents to treat COVID-19 and potential future coronavirus outbreaks. This collaboration brings together the Company's expertise in the discovery and development of antiviral agents with X-Chem's industry leading DNA-encoded library (DEL) technology and Proteros' protein sciences, biophysics and structural biology capabilities and provides important synergies to potentially identify safe and effective therapies against coronaviruses including SARS-CoV-2. The collaboration is expected to allow for the rapid screening of one of the largest small molecule libraries against M^{pro} (an essential protein required for the virus to replicate itself) and the use of state-of-the-art structure guided methods to rapidly optimize M^{pro} inhibitors, which the Company could potentially progress to clinical candidates. The agreement provides for payments by the Company to X-Chem and Proteros upon satisfaction of certain development, regulatory and commercial milestones, as well as royalties on sales.

Alnylam Pharmaceuticals, Inc. and Acuitas Therapeutics, Inc.

The Company has two royalty entitlements to Alnylam's global net sales of ONPATTRO.

In 2012, the Company entered into a license agreement with Alnylam that entitles Alnylam to develop and commercialize products with the Company's LNP technology. Alnylam's ONPATTRO, which represents the first approved application of the Company's LNP technology, was approved by the United States Food and Drug Administration ("FDA") and the European Medicines Agency ("EMA") during the third quarter of 2018 and was launched by Alnylam immediately upon approval in the United States. Under the terms of this license agreement, the Company is entitled to tiered royalty payments on global net sales of ONPATTRO ranging from 1.00% - 2.33% after offsets, with the highest tier applicable to annual net sales above $500 million. This royalty interest was sold to OMERS, effective as of January 1, 2019, for $20 million in gross proceeds before advisory fees. OMERS will retain this entitlement until it has received $30 million in royalties, at which point 100% of this royalty entitlement on future global net sales of ONPATTRO will revert back to the Company. OMERS has assumed the risk of collecting up to $30 million of future royalty payments from Alnylam and the Company is not obligated to reimburse OMERS if they fail to collect any such future royalties. If this royalty entitlement reverts to the Company, it has the potential to provide an active royalty stream or to be otherwise monetized again in full or in part.
The Company also has rights to a second, lower royalty interest on global net sales of ONPATTRO originating from a settlement agreement and subsequent license agreement with Acuitas. This royalty entitlement from Acuitas has been retained by the Company and was not part of the royalty entitlement sale to OMERS.

Revenues are summarized in the following table:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)		(in thousands)	
Revenue from collaborations and licenses				
Acuitas Therapeutics, Inc.	$ 1,163	$ 761	$ 2,258	$ 1,514
Other milestone and royalty payments	22	63	81	146
Non-cash royalty revenue				
Alnylam Pharmaceuticals, Inc.	1,144	690	2,103	1,345
Total revenue	$ 2,329	$ 1,514	$ 4,442	3,005

10. Stockholders' equity

Open Market Sale Agreement

The Company has an Open Market Sale Agreement (the "Sale Agreement") with Jefferies LLC ("Jefferies") dated December 20, 2018, as amended on December 20, 2019 (the "2019 Amended Sale Agreement"), under which it may issue and sell common shares, from time to time, under a shelf registration statement on Form S-3 (File No. 333-235674), filed with the SEC on December 23, 2019 (the "2019 Shelf Registration Statement"). In July 2020, the Company fully utilized the remaining availability under the 2019 Amended Sale Agreement. In August 2020, the Company entered into an amendment to the 2019 Amended Sale Agreement (as amended, the "2020 Amended Sale Agreement") with Jefferies, whereby the Company may issue and sell common shares, from time to time, for an aggregate sales price of up to $75 million, under the 2019 Shelf Registration Statement. On August 7, 2020, the Company filed a prospectus supplement with the SEC (the "August 2020 Prospectus Supplement") under the 2019 Shelf Registration Statement in connection with the offering of up to an additional $75 million of its common shares pursuant to the 2020 Amended Sale Agreement.

The Company filed a new shelf registration statement on Form S-3 (File No. 333-248467) with the SEC on August 28, 2020 (the "2020 Shelf Registration Statement"). On March 4, 2021, the Company entered into an amendment to the 2020 Amended Sale Agreement with Jefferies to reflect that the Company may issue and sell additional common shares from time to time without a cap on the aggregate sales price (as amended, the "2021 Amended Sale Agreement"). Also, on March 4, 2021, the Company filed a prospectus supplement with the SEC (the "March 2021 Prospectus Supplement") in connection with the offering of up to an additional $75.0 million of its common shares pursuant to the 2021 Amended Sale Agreement under the 2020 Shelf Registration Statement.

During the three and six months ended June 30, 2021, the Company issued 1,450,145 and 7,845,925 common shares pursuant to the 2020 Amended Sale Agreement, resulting in net proceeds of approximately $4.3 million and $30.7 million, respectively. For the three and six months ended June 30, 2020, the Company issued 2,291,184 and 6,438,265 common shares pursuant to the 2019 Amended Sale Agreement, resulting in net proceeds of approximately $5.0 million and $17.4 million, respectively.

As of June 30, 2021, there was approximately $9.8 million available under the August 2020 Prospectus Supplement and $75.0 million available under the March 2021 Prospectus Supplement.

Stock-based compensation

The table below summarizes information about the Company's stock based compensation for the three and six months ended June 30, 2021 and 2020 and the expense recognized in the condensed consolidated statements of operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands, except share and per share data)			
Options granted during period	230,800	566,513	3,127,350	2,667,550
Weighted average exercise price	$ 3.03	$ 3.00	$ 4.23	$ 3.27
Stock compensation expense				
Research and development	$ 578	$ 681	$ 1,418	$ 1,533
General and administrative	1,165	916	1,960	1,509
Total stock compensation expense	$ 1,743	$ 1,597	$ 3,378	$ 3,042

Series A 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 $116.4 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 approximately 23 million common shares on October 18, 2021 (subject to limited exceptions in the event of certain fundamental corporate transactions relating to the Company's capital structure or assets, which would permit earlier conversion at Roivant's option). Assuming conversion of the Preferred Shares into common shares, based on the number of common shares outstanding on June 30, 2021 Roivant would hold 32% of the Company's common shares. Roivant has agreed to a four year lock-up period for this investment and its existing holdings in the Company. 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. Both the lockup and standstill periods expire on October 18, 2021. Following the expiration of the standstill period, Roivant will no longer be contractually prohibited from acquiring control of the Company. 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.

The Company records the Preferred Shares wholly as equity with no bifurcation of the 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 statement of stockholders' equity).

11. Related party transactions

During the three and six months ended June 30, 2021 and 2020, Genevant purchased certain administrative services from the Company. Income from these services was less than $0.1 million in both periods and is netted against research and development expenses in the condensed consolidated statements of operations.

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, 2020 and our unaudited condensed consolidated financial statements for the three and six months ended June 30, 2021. Our consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles and are presented in U.S. dollars.

REFERENCES TO ARBUTUS BIOPHARMA CORPORATION

Throughout this Quarterly Report on Form 10-Q ("Form 10-Q") , the "Company," "Arbutus," "we," "us," and "our," except where the context requires otherwise, refer to Arbutus Biopharma Corporation and its consolidated subsidiaries, and "our board of directors" refers to the board of directors of Arbutus Biopharma Corporation.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Form 10-Q contains "forward-looking statements" or "forward-looking information" within the meaning of applicable United States and Canadian securities laws (we collectively refer to these items as "forward-looking statements"). Forward-looking statements are generally identifiable by use of the words "believes," "may," "plans," "will," "anticipates," "intends," "budgets," "could," "estimates," "expects," "forecasts," "projects" and similar expressions that are not based on historical fact or that are predictions of or indicate future events and trends, and the negative of such expressions. Forward-looking statements in this Form 10-Q, including the documents incorporated by reference, include statements about, among other things:

- our strategy, future operations, pre-clinical research, pre-clinical studies, clinical trials, prospects and the plans of management;
- the potential impact of the COVID-19 pandemic on our business and clinical trials;
- the discovery, development and commercialization of a curative combination regimen for chronic hepatitis B infection, a disease of the liver caused by the hepatitis B virus ("HBV");
- our beliefs and development path and strategy to achieve a curative combination regimen for HBV;
- obtaining necessary regulatory approvals;
- obtaining adequate financing through a combination of financing activities and operations;
- using the results from our HBV studies to adaptively design additional clinical trials to test the efficacy of the combination therapy and the duration of the result in patients;
- the expected timing of and amount for payments related to the Enantigen Therapeutics, Inc.'s transaction and its programs;
- the potential of our product candidates to improve upon the standard of care and contribute to a functional curative combination treatment regimen;
- the potential benefits of the reversion of the Ontario Municipal Employees Retirement System ("OMERS") royalty monetization transaction for our ONPATTRO® (Patisiran) ("ONPATTRO") royalty interest;
- 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 pre-clinical results to adaptively design clinical trials for additional cohorts of patients, testing the combination and the duration of therapy;
- selecting combination therapy regimens and treatment durations to conduct Phase 3 clinical trials intended to ultimately support regulatory filings for marketing approval;
- the potential of substantially increasing diagnosis and treatment rates for people with chronic HBV through the introduction of an HBV curative regimen with a finite duration;
- expanding our HBV product candidate pipeline through internal development, acquisitions and in-licenses;
- our expectation for additional data from ongoing cohorts of the Phase 1a/1b trial of AB-729 to be available in the second half of 2021 (including initial data from the 90 mg every 12-week dosing interval cohort in HBV DNA negative subjects and initial data from the 90 mg every 8-week dosing interval cohort in HBV DNA positive subjects);

- our expectation that AB-729 could be combined with our lead capsid inhibitor candidate, AB-836, and approved NAs, in our first combination therapy for HBV patients;
- our expectations regarding the anticipated trial design, timing, number of patients and dosing of our Phase 2a clinical trial of Assembly Biosciences, Inc.'s ("Assembly") investigational HBV core inhibitor candidate, also known as a capsid inhibitor, vebicorvir, in combination with our proprietary GalNAc delivered RNAi therapeutic candidate, AB-729, and standard-of-care nucleos(t)ide reverse transcriptase inhibitor (NrtI) therapy for the treatment of patients with chronic HBV infection;
- our expectation to undertake a larger Phase 2b clinical trial to evaluate AB-729 in collaboration with Vaccitech plc ("Vaccitech");
- our expectation to initiate two Phase 2a proof-of-concept clinical trials of AB-729 with Peg-IFNα-2a and Antios Therapeutics, Inc.'s ("Antios") ATI-2173 in the second half of 2021;
- our expectation to file a Clinical Trial Application (CTA) for a Phase 2a proof-of-concept clinical trial of AB-729 with Vaccitech's VTP-300 in the second half of 2021 and to initiate the clinical trial in early 2022;
- the potential for an oral HBsAg-reducing agent and potential all-oral combination therapy;
- our expectation to obtain initial data from the ongoing Phase 1a/1b clinical trial for AB-836 in the second half of 2021;
- the potential for AB-836 to have increased potency and an enhanced resistance profile, compared to our previous capsid inhibitor candidate, AB-506, and other competitive capsid inhibitors;
- the potential for AB-836 to be once-daily dosing;
- the potential for AB-729 to have a dosing schedule as infrequently as every 8 to 12 weeks;
- our expectation to pursue development of a next generation oral HBV RNA-destabilizer;
- the potential for us to discover and/or develop new molecular entities for treating coronaviruses, including COVID-19;
- the potential for our collaboration with X-Chem, Inc. ("X-Chem") and Proteros biostructures GmbH ("Proteros") to result in the rapid screening of one of the largest small molecule libraries against M^{pro} and the potential for us to progress related inhibitors to clinical candidates;
- payments from the Gritstone Oncology, Inc. licensing agreement;
- the potential for royalty payments from the agreement related to Genevant Sciences Ltd.;
- 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 through the third quarter of 2022 based on our expectation of a net cash burn between $70 million and $75 million in 2021; and
- 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, other non-dilutive commercial arrangements and government grants and contracts,

as well as other statements relating to our future operations, financial performance or financial condition, prospects or other future events. Forward-looking statements appear primarily in the sections of this Form 10-Q entitled "Part I, Item 1- Financial Statements (Unaudited)," and "Part I, Item 2-Management's Discussion and Analysis of Financial Condition and Results of Operations."

Forward-looking statements are based upon current expectations and assumptions and are subject to a number of known and unknown risks, uncertainties and other factors that could cause actual results to differ materially and adversely from those expressed or implied by such statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2020 (the "Form 10-K"), and in particular the risks and uncertainties discussed under "Item 1A-Risk Factors" of this Form 10-Q and the Form 10-K. As a result, you should not place undue reliance on forward-looking statements.

Additionally, the forward-looking statements contained in this Form 10-Q represent our views only as of the date of this Form 10-Q (or any earlier date indicated in such statement). While we may update certain forward-looking statements from time to time, we specifically disclaim any obligation to do so, even if new information becomes available in the future. However, you are advised to consult any further disclosures we make on related subjects in the periodic and current reports that we file with the Securities and Exchange Commission.

The foregoing cautionary statements are intended to qualify all forward-looking statements wherever they may appear in this Form 10-Q. For all forward-looking statements, we claim protection of the safe harbor for the forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

This Form 10-Q also contains estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

OVERVIEW

Arbutus Biopharma Corporation ("Arbutus", the "Company", "we", "us", and "our") is a clinical-stage, biopharmaceutical company focused primarily on discovering, developing and commercializing a cure for people with chronic hepatitis B virus ("HBV") infection. We are advancing multiple product candidates with distinct mechanisms of action and we believe the combination of two or more of these product candidates has the potential to provide a new curative regimen for chronic HBV infection. We have also initiated a drug discovery and development effort for treating coronaviruses, including COVID-19.

Strategy

The core elements of our strategy include:

- **Developing a broad portfolio of proprietary therapeutic product candidates that target multiple elements of the HBV viral lifecycle.** Our HBV product pipeline includes RNA interference ("RNAi") therapeutics, oral capsid inhibitors, oral HBV RNA destabilizer compounds and oral compounds that inhibit PD-L1 with the intention of reawakening patients' HBV-specific immune response. We believe that suppressing HBV DNA replication and hepatitis B surface antigen ("HBsAg") expression as well as reawakening patients' HBV-specific immune response are the most important elements to achieving a functional cure. We define a functional cure as unquantifiable plasma HBV DNA and HBsAg levels greater than six months after end of therapy with or without quantifiable anti-HBsAg antibodies.

  Our two lead product candidates are AB-729, our proprietary subcutaneously-delivered RNAi product candidate that suppresses HBsAg expression, which is thought to be a key prerequisite to enable reawakening of a patient's immune system to respond to HBV, and AB-836, our proprietary next-generation oral capsid inhibitor that suppresses HBV DNA replication.

  AB-729 is currently in an ongoing Phase 1a/1b clinical trial and a Phase 2a proof-of-concept clinical trial in collaboration with Assembly Biosciences, Inc.("Assembly"). We have announced positive preliminary results in the Phase 1a/1b clinical trial from several single and multi-dose cohorts of subjects with chronic HBV infection, which have demonstrated that treatment with AB-729 resulted in meaningful declines in HBsAg while being well tolerated with no serious adverse events noted after both single and repeat dosing. We expect to provide additional data from ongoing cohorts of this Phase 1a/1b clinical trial in the second half of 2021, including initial data from the 90 mg every 12-week dosing interval cohort in HBV DNA negative subjects and initial data from the 90 mg every 8-week dosing interval cohort in HBV DNA positive subjects.

  We are enrolling subjects in a Phase 1a/1b clinical trial for AB-836 with initial data from healthy volunteers and HBV subjects anticipated in the second half of 2021. AB-836 is from a novel chemical series differentiated from competitor compounds and has the potential to provide increased efficacy and an enhanced resistance profile.

  Additionally, we are in lead optimization with oral compounds that inhibit PD-L1 with the intention of reawakening patients' HBV-specific immune response and next-generation oral HBV RNA destabilizer compounds that are designed to destabilize and ultimately degrade HBV RNAs resulting in the reduction of HBsAg.

- **Creating combinations of therapeutic product candidates with complementary mechanisms of action designed to provide a functional cure for people with chronic HBV infection.** We believe that our proprietary product candidates AB-729 and AB-836, along with existing approved therapies, may be combined into our first combination therapy for people with chronic HBV infection. To advance our efforts to position AB-729 as a potential cornerstone therapeutic in future HBV combination regimens, we have entered into several clinical collaborations to evaluate AB-729 in combination with other agents with potentially complementary mechanisms of action:

  - Through our collaboration with Assembly, we are enrolling subjects in a Phase 2a proof-of-concept clinical trial with a triple combination of AB-729, our RNAi product candidate, Assembly's lead HBV core inhibitor (capsid inhibitor) product candidate, vebicorvir ("VBR"), and nucleos(t)ide analog ("NA") therapy for the treatment of people with chronic HBV infection.

  - In July 2021, Arbutus received authorization from the U.S. Food and Drug Administration to proceed with its Investigational New Drug (IND) application for AB-729 in a Phase 2a proof-of-concept clinical trial to evaluate AB-729 in combination with ongoing NA therapy and short courses of Peg-IFNα-2a in subjects with

chronic HBV infection. This Phase 2a proof-of-concept clinical trial is expected to initiate in the second half of 2021.

- In July 2021, we entered into a clinical collaboration with Vaccitech to evaluate a triple combination of AB-729 with Vaccitech's proprietary immunotherapeutic, VTP-300, and standard-of-care NA therapy for the treatment of subjects with chronic HBV infection. We expect to file a Clinical Trial Application (CTA) in the second half of 2021 and initiate the clinical trial in early 2022.

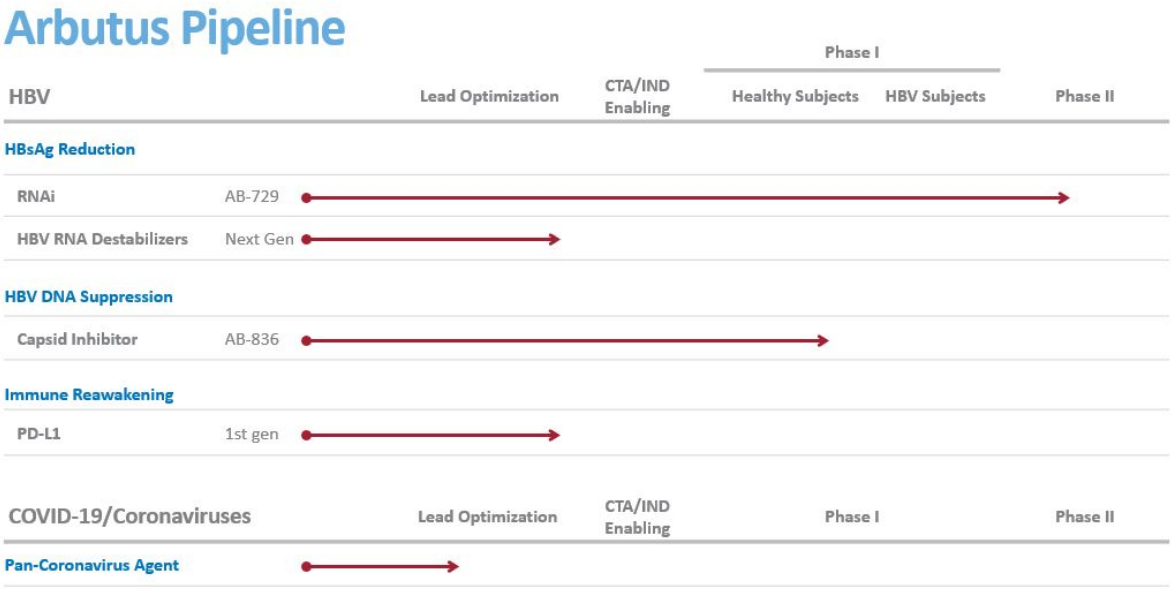
- In June 2021, we entered into a clinical collaboration with Antios to evaluate a triple combination of AB-729, Antios' proprietary active site polymerase inhibitor nucleotide (ASPIN), ATI-2173, and Viread (tenofovir disoproxil fumarate), for the treatment of subjects with chronic HBV infection. This Phase 2a proof-of-concept clinical trial is expected to initiate in the second half of 2021.

- **Advancement of an internal research program focused on identifying new small molecule antiviral medicines to treat COVID-19 and future coronavirus outbreaks.** This program is focused on the discovery and development of new molecular entities for treating coronaviruses (including COVID-19) that address specific viral targets including the nsp12 viral polymerase and the nsp5 viral protease. Our collaboration with X-Chem, Inc. ("X-Chem") and Proteros biostructures GmbH ("Proteros") is expected to allow for the rapid screening of one of the largest small molecule libraries against M^{pro} (an essential protein required for the virus to replicate itself) and use state-of-the-art structure guided methods to rapidly optimize M^{pro} inhibitors, which we could potentially progress to clinical candidates.

Our Product Candidates

Given the biology of HBV, we believe combination therapies are the key to more effective HBV treatment and a potential functional cure. Our product pipeline includes multiple product candidates that target various steps in the viral lifecycle. We believe each of these mechanisms, when administered for a finite duration in combination with existing approved therapies, have the potential to improve upon the standard of care and potentially lead to a functional cure.

Our HBV product pipeline consists of the following programs:



We continue to explore expansion of our HBV pipeline through internal discovery and development activities and through potential strategic alliances.

GalNAc RNAi (AB-729)

RNAi therapeutics represent a recent significant advancement in drug development. RNAi therapeutics utilize a natural pathway within cells to silence genes by eliminating the disease-causing proteins that they code for. We are developing RNAi therapeutics that are designed to reduce HBsAg expression and other HBV antigens in people chronically infected with HBV. Reducing HBsAg is widely believed to be a key prerequisite to enable a patient's immune system to reawaken and respond against the virus.

AB-729 is a subcutaneously-delivered RNAi therapeutic targeted to hepatocytes using our proprietary covalently conjugated GalNAc delivery technology. AB-729 reduces all HBV antigens and inhibits viral replication. In July 2019, we initiated a single- and multi-dose Phase 1a/1b clinical trial for AB-729, designed to investigate the safety, tolerability, pharmacokinetics, and pharmacodynamics of AB-729 in healthy volunteers and in chronic HBV subjects and to determine the most appropriate doses and dosing intervals to take forward into Phase 2 clinical development.

The ongoing first-in-human clinical trial of AB-729 consists of three parts:

- In Part 1, three cohorts of healthy volunteers were randomized 4:2 to receive single doses (60 mg, 180 mg or 360 mg) of AB-729 or placebo.
- In Part 2, non-cirrhotic, hepatitis B e-antigen ("HBeAg") positive or negative chronic HBV subjects (n=6) currently taking NA therapy with HBV DNA below the limit of quantitation received single doses (60 mg to 180 mg) of AB-729. An additional cohort in Part 2 included 90 mg single-dose of AB-729 in HBV DNA positive chronic HBV subjects (n=6).
- In Part 3, chronic HBV subjects, HBV DNA negative first and HBV DNA positive later, receive multiple doses of AB-729 for up to six months. Upon completion of six months of dosing, all subjects in the 60 mg dose every 4 weeks and 60 mg dose every 8 weeks cohorts elected the option to reconsent and receive an additional six months of dosing for a total of 48 weeks.

Part 1 of the trial, which dosed healthy volunteers, was completed and supported advancing doses ranging from 60 mg to 180 mg into Part 2. Part 2 of the trial, which dosed subjects with chronic HBV infection with single doses of AB-729, completed its 48 weeks of follow-up period in the second quarter of 2021. Additionally, several cohorts in Part 3 have received multiple doses of AB-729. Results to date demonstrate that treatment of AB-729 has been safe and well tolerated.

Single doses of 60 mg, 90 mg and 180 mg resulted in comparable mean HBsAg declines at week 12 (-0.99 log10 IU/mL vs -1.23 log10 IU/mL, vs -1.10 log10 IU/mL, respectively) followed by a sustained plateau phase. In HBV DNA positive HBV subjects, a single 90 mg dose resulted in robust mean declines in HBsAg (-1.02 log10 IU/mL) and HBV DNA (-1.53 log10 IU/mL) at week 12, as well as decreases in HBV RNA and core-related antigen. Similar mean HBsAg reductions were observed in HBV DNA positive and negative chronic HBV subjects. These findings support complete target engagement by AB-729.

In June 2021, we presented three posters and a late breaker oral presentation at the 2021 EASL conference highlighting the most recent data from the multi-dose cohorts of this clinical trial. Repeat dosing of AB-729 resulted in a robust mean HBsAg decline followed by a sustained plateau phase. Repeat dosing using the 60 mg dose every 8 weeks resulted in comparable mean HBsAg declines relative to the 60 mg dose every 4 weeks. Repeat dosing using the 90 mg dose every 8 weeks resulted in comparable mean HBsAg declines relative to the 60 mg dose every 8 weeks. Additionally, based on 3/5 evaluable subjects, long term dosing of AB-729 demonstrated increased HBV specific immune responses, providing support for combination therapy including immunomodulatory agents.

Mean (range) change in HBsAg with repeat dosing of AB-729:

Visit	Cohort E AB-729 60 mg Q4W	Cohort F AB-729 60 mg Q8W	Cohort I AB-729 90 mg Q8W	*p* value between Cohorts
Week 16	**-1.44** (-0.71 to -1.95)	**-1.39** (-1.61 to -1.08)	**-1.63** (-0.89 to -2.44)	***p* ≥ 0.4**
Week 24	**-1.84** (-0.99 to -2.31)	**-1.57** (-1.24 to -2.01)	**-1.79** (-1.22 to -2.46)	***p* ≥ 0.2**
Week 32	**-1.84** (-0.94 to -2.36)	**-1.68** (-1.37 to -2.15)	---	***p* = 0.5**

Week 40	**-1.84** (-0.88 to -2.47)	**-1.78*** (-1.40 to -2.14)	---	***p* = 0.7**
Week 44	**-1.81*** (-0.93 to -2.43)	**-1.87*** (-1.32 to -2.34) [N=6]	---	***p* = 0.8**
Week 48	**-1.89*** (-0.91 to -2.44)	---	---	---

ǂ subjects switched to AB-729 60 mg Q12W after Week 20 dose
* Data updated since EASL ILC™ presentation

We expect to provide additional data from the ongoing cohorts of this Phase 1a/1b clinical trial in the second half of 2021, including initial data from the 90 mg every 12-week dosing interval cohort in HBV DNA negative subjects and initial data from the 90 mg every 8-week dosing interval cohort in HBV DNA positive subjects.

The efficacy and safety data for AB-729, derived from up to one year of dosing, support our view that 60 mg every 8 weeks is an appropriate dose to move forward in our upcoming Phase 2a clinical trials. To advance our efforts to position AB-729 as a potential cornerstone therapeutic in future HBV combination regimens, we are evaluating AB-729 in several Phase 2a proof-of-concept combination clinical trials with other agents with potentially complementary mechanisms of action, including Peg-IFNα-2a and several investigational agents via clinical collaborations with other companies as described below.

Collaboration with Assembly

In August 2020, we entered into a clinical collaboration agreement with Assembly to evaluate AB-729 in combination with Assembly's lead HBV core inhibitor (capsid inhibitor) candidate vebicorvir ("VBR") and standard-of-care NA therapy for the treatment of subjects with chronic HBV infection. We are currently enrolling subjects in a randomized, multi-center, open-label Phase 2a proof-of-concept clinical trial is evaluating the safety, pharmacokinetics, and antiviral activity of the triple combination of AB-729, VBR, and an NA compared to the double combinations of VBR with an NA and AB-729 with an NA. We expect to enroll approximately 60 virologically-suppressed subjects with HBeAg negative chronic HBV infection in the first cohort of this trial. Patients will be dosed for 48 weeks with AB-729 60 mg subcutaneously every 8 weeks and VBR 300 mg orally once daily, with a 48-week follow-up period. We and Assembly will share in the costs of the collaboration. Under the terms of the collaboration, we and Assembly may also add additional cohorts in the future to evaluate other patient populations and/or combinations. Except to the extent necessary to carry out Assembly's responsibilities with respect to the collaboration trial, we have not provided any license grant to Assembly for use of our AB-729 compound.

Collaboration with Vaccitech plc

In July 2021, we entered into a clinical collaboration agreement with Vaccitech plc ("Vaccitech") to evaluate the safety, pharmacokinetics, immunogenicity, and antiviral activity of AB-729 followed by Vaccitech's proprietary immunotherapeutic, VTP-300, in NrtI-suppressed subjects with CHB. Pending regulatory approval, the trial is expected to enroll 40 NA-suppressed, Hepatitis B e-antigen negative or positive, non-cirrhotic CHB subjects. Subjects are expected to receive AB-729 + NA for 24 weeks. At Week 24, subjects will be randomized 1:1 to receive either NA + VTP-300 or NA + VTP-300 sham. At Week 48, all subjects are expected to be evaluated for eligibility to either discontinue all treatments or remain on their NrtI only. Subjects are expected to be followed for an additional 48 weeks. The Phase 2a proof-of-concept clinical trial will be managed by us, subject to oversight by a joint development committee comprised of representatives from us and Vaccitech. We and Vaccitech retain full rights to their respective product candidates and will split all costs associated with the clinical trial. We expect to file a CTA in the second half of 2021 and initiate the clinical trial in early 2022. Pursuant to the agreement, the parties intend to undertake a larger Phase 2b clinical trial depending on the results of the initial Phase 2a clinical trial.

Collaboration with Antios Therapeutics, Inc.

In June 2021, we entered into a clinical collaboration agreement with Antios Therapeutics, Inc. ("Antios") to evaluate a triple combination of AB-729, Antios' proprietary active site polymerase inhibitor nucleotide (ASPIN), ATI-2173, and Viread (tenofovir disoproxil fumarate), for the treatment of subjects with chronic HBV infection. ATI-2173, AB-729 and Viread will be evaluated in combination in a single cohort in the ongoing Antios Phase 2a ANTT201 clinical trial. The multi-center, double-blinded, placebo-controlled, multiple-dose cohort will evaluate the safety, pharmacokinetics, immunogenicity, and antiviral activity of the combination of ATI-2173, AB-729 and Viread. This cohort is expected to initiate in the second half of 2021. Antios will be responsible for the costs of adding this single cohort to its ongoing clinical trial. Arbutus will be responsible for the manufacture and supply of AB-729. Except to the extent necessary to carry out Antios' responsibilities with

respect to the collaboration trial, we have not provided any license grant to Antios for use of our AB-729 compound.

Phase 2a proof-of-concept clinical trial to evaluate AB-729 in combination with Peg-IFNα-2a

In July 2021,we received authorization from the U.S. Food and Drug Administration to proceed with our Investigational New Drug (IND) application for AB-729 in a Phase 2a proof-of-concept clinical trial to evaluate AB-729 in combination with ongoing NA therapy and short courses of Peg-IFNα-2a in subjects with chronic HBV infection. This is a randomized, open label, multicenter Phase 2a trial investigating the safety and antiviral activity of AB-729 in combination with ongoing NA therapy and short courses of Peg-IFNα-2a in subjects with CHB. Pending protocol finalization, the trial is expected to enroll 40 stably NA-suppressed, HBeAg negative, non-cirrhotic CHB subjects. After a 24-week dosing period of AB-729 (60 mg SC every 8 weeks (Q8W)), subjects will be randomized into one of 4 groups:

- A1: AB-729 + NA + weekly Peg-IFNα-2a for 24 weeks (N = 12)
- A2: NA + weekly Peg-IFNα-2a for 24 weeks (N = 12)
- B1: AB-729 + NA + weekly Peg-IFNα-2a for 12 weeks (N = 8)
- B2: NA + weekly Peg-IFNα-2a for 12 weeks (N = 8)

After completion of the assigned Peg-IFNα-2a treatment period, all subjects will remain on NA therapy for the initial 24-week follow up period, and then will discontinue NA treatment if treatment stopping criteria are met. If subjects stop NA therapy, they will enter an intensive follow-up period for 48 weeks. This Phase 2a proof-of-concept clinical trial is expected to initiate in the second half of 2021.

Oral Capsid Inhibitors (AB-836)

HBV core protein assembles into a capsid structure, which is required for viral replication. The current commercially available therapies (NAs or Peg-IFN) significantly reduce HBV DNA levels in the serum, but HBV replication continues in the liver, thereby enabling HBV infection to persist. More effective therapies for patients require new agents which will further block viral replication. We are developing capsid inhibitors (also known as core protein inhibitors) as oral therapeutics which, in combination with NAs, could further reduce HBV replication. By inhibiting assembly of functional viral capsids, the ability of HBV to replicate is impaired. Capsid inhibitor molecules also inhibit the uncoating step of the viral life cycle and thus reduce the formation of cccDNA, the viral reservoir which resides in the cell nucleus, and which is believed to play a role in viral persistence.

Our oral capsid inhibitor discovery effort generated promising next-generation compounds, which led to the nomination of AB-836 in January 2020. AB-836 is a novel chemical series differentiated from competitor compounds with the potential for increased efficacy and an enhanced resistance profile. AB-836 leverages a novel binding site within the core protein dimer-dimer interface, has shown to be active against NA resistant variants and has the potential to address certain known capsid resistant variants. AB-836 is anticipated to be combinable with other mechanisms of action and is also anticipated to be dosed once daily. We completed CTA/IND-enabling studies for AB-836 in the fourth quarter of 2020 and initiated a Phase 1a/1b clinical trial for AB-836 in the first quarter of 2021 with initial data from healthy volunteers and HBV subjects expected in the second half of 2021.

Oral PD-L1 Inhibitors

PD-L1 inhibitors complement our pipeline of agents and could potentially be an important part of a combination therapy for the treatment of HBV. Highly functional HBV-specific T cells within our immune system are believed to be required for long-term HBV viral resolution. However, HBV-specific T cells become functionally defective, and greatly reduced in their frequency during chronic HBV infection. One approach to boost HBV-specific T cells is to prevent PD-L1 proteins from attaching to and inhibiting the HBV-specific T cells. We are in lead optimization with oral compounds which are potentially capable of reawakening patients' HBV-specific immune response by inhibiting PD-L1.

Oral HBV RNA Destabilizers

HBV RNA destabilizers are small molecule orally available agents that cause the destabilization and ultimate degradation of HBV RNAs. These agents result in the reduction of HBsAg and other viral proteins in both whole cell systems and animal models. They have the potential to selectively impact HBV versus other RNA or DNA viruses and demonstrate pangenotypic characteristics. HBV RNA destabilizers have demonstrated additive effects in combination with other anti-HBV mechanisms of action. HBV RNA destabilizers have the potential to complement or replace subcutaneously delivered RNAi agents, such as

AB-729, with an oral therapy in combination with a capsid inhibitor and an approved NA. We continue to advance next-generation oral HBV RNA-destabilizers through lead optimization.

COVID-19 Research Efforts

While our core mission is to find a cure for HBV, the magnitude of the coronavirus pandemic is undeniable. Given our proven expertise in the discovery of new antiviral therapies, we initiated a drug discovery effort for treating coronaviruses, including COVID-19, in 2020. To that end, we have assembled an internal team of expert scientists under the direction of our Chief Scientific Officer, Dr. Michael Sofia, to identify novel small molecule therapies to treat COVID-19 and future coronavirus outbreaks. Dr. Sofia, who was awarded the Lasker-DeBakey Award for his discovery of sofosbuvir, brings extensive antiviral drug discovery experience to this new program. We are also a member of the COVID R&D consortium to address the SARS-CoV-2 pandemic and any future coronavirus outbreaks. At this time, our COVID-19 research program is focused on the discovery and development of new molecular entities that address specific viral targets including the nsp12 viral polymerase and the nsp5 viral protease. These targets are essential viral proteins which we have experience in targeting. We are actively screening multiple new oral molecular entities.

Collaboration with X-Chem, Inc. and Proteros biostructures GmbH

In March 2021, we entered into a discovery research and license agreement with X-Chem and Proteros to focus on the discovery of novel inhibitors targeting the SARS-CoV-2 nsp5 main protease (M^{pro}). The agreement is designed to accelerate the development of pan-coronavirus agents to treat COVID-19 and potential future coronavirus outbreaks. This collaboration brings together our expertise in the discovery and development of antiviral agents with X-Chem's industry leading DNA-encoded library (DEL) technology and Proteros' protein sciences, biophysics and structural biology capabilities and provides important synergies to potentially identify safe and effective therapies against coronaviruses including SARS-CoV-2. The collaboration is expected to allow for the rapid screening of one of the largest small molecule libraries against M^{pro} (an essential protein required for the virus to replicate itself) and the use of state-of-the-art structure guided methods to rapidly optimize M^{pro} inhibitors, which we could potentially progress to clinical candidates. The agreement provides for payments by the Company to X-Chem and Proteros upon satisfaction of certain development, regulatory and commercial milestones, as well as royalties on sales.

COVID-19 Impact

In December 2019 an outbreak of a novel strain of coronavirus (COVID-19) was identified in Wuhan, China. This virus continues to spread globally, has been declared a pandemic by the World Health Organization and has spread to nearly every country in the world. The impact of this pandemic has been, and will likely continue to be, extensive in many aspects of society. The pandemic has resulted in and will likely continue to result in significant disruptions to businesses. A number of countries and other jurisdictions around the world have implemented extreme measures to try and slow the spread of the virus. These measures include the closing of businesses and requiring people to stay in their homes, the latter of which raises uncertainty regarding the ability to travel to hospitals in order to participate in clinical trials. Additional measures that have had, and will likely continue to have, a major impact on clinical development, at least in the near-term, include shortages and delays in the supply chain, and prohibitions in certain countries on enrolling subjects in new clinical trials. While we have been able to progress with our clinical and pre-clinical activities to date, it is not possible to predict if the COVID-19 pandemic will materially impact our plans and timelines in the future.

Other Royalty Entitlements and Collaborations

Alnylam Pharmaceuticals, Inc. and Acuitas Therapeutics, Inc.

We have two royalty entitlements to Alnylam Pharmaceutical Inc.'s ("Alnylam") global net sales of ONPATTRO.

In 2012, we entered into a license agreement with Alnylam that entitles Alnylam to develop and commercialize products with our lipid nanoparticle ("LNP") delivery technology. Alnylam's ONPATTRO, which represents the first approved application of our LNP technology, was approved by the United States Food and Drug Administration ("FDA") and the European Medicines Agency ("EMA") during the third quarter of 2018 and was launched by Alnylam immediately upon approval in the United States. Under the terms of this license agreement, we are entitled to tiered royalty payments on global net sales of ONPATTRO ranging from 1.00% - 2.33% after offsets, with the highest tier applicable to annual net sales above $500 million. This royalty interest was sold to the Ontario Municipal Employees Retirement System ("OMERS"), effective as of January 1, 2019, for $20 million in gross proceeds before advisory fees. OMERS will retain this entitlement until it has received $30 million in royalties,

at which point 100% of this royalty entitlement on future global net sales of ONPATTRO will revert to us. OMERS has assumed the risk of collecting up to $30 million of future royalty payments from Alnylam and we are not obligated to reimburse OMERS if they fail to collect any such future royalties. If this royalty entitlement reverts to us, it has the potential to provide an active royalty stream or to be otherwise monetized again in full or in part. From the inception of the royalty sale through June 30, 2021, an aggregate of $7.2 million of royalties have been collected by OMERS.

We also have rights to a second, lower royalty interest on global net sales of ONPATTRO originating from a settlement agreement and subsequent license agreement with Acuitas Therapeutics, Inc. ("Acuitas"). This royalty entitlement from Acuitas has been retained by us and was not part of the royalty entitlement sale to OMERS.

Genevant Sciences, Ltd.

In April 2018, we entered into an agreement with Roivant Sciences Ltd. ("Roivant"), our largest shareholder, to launch Genevant Sciences Ltd. ("Genevant"), a company focused on the discovery, development, and commercialization of a broad range of RNA-based therapeutics enabled by our LNP and ligand conjugate delivery technologies. We licensed exclusive rights to our LNP and ligand conjugate delivery platforms to Genevant for RNA-based applications outside of HBV, except to the extent certain rights had already been licensed to other third parties (the "Genevant License"). We retained all rights to our LNP and conjugate delivery platforms for HBV. Under the Genevant License, we are entitled to receive tiered low single-digit royalties on future sales of Genevant products covered by the licensed patents. If Genevant sub-licenses the intellectual property licensed by us to Genevant, we are entitled to receive under the Genevant License, upon the commercialization of a product developed by such sub-licensee, the lesser of (i) twenty percent of the revenue received by Genevant for such sublicensing and (ii) tiered low single-digit royalties on product sales by the sublicensee.

On July 31, 2020, Roivant recapitalized Genevant through an equity investment and conversion of previously issued convertible debt securities held by Roivant. We participated in the recapitalization of Genevant with an equity investment of $2.5 million. In connection with the recapitalization, the three parties entered into an Amended and Restated Shareholders Agreement that provides Roivant with substantial control of Genevant. We have a non-voting observer seat on Genevant's Board of Directors. As of June 30, 2021, we owned approximately 16% of the common equity of Genevant and the carrying value of our investment in Genevant was zero. Our entitlement to receive future royalties or sublicensing revenue from Genevant was not impacted by the recapitalization.

Moderna Inter Partes Review Petitions

On February 21, 2018 and March 5, 2018, Moderna Therapeutics, Inc. ("Moderna") filed petitions requesting the United States Patent and Trademark Office to institute an Inter Partes Review of Arbutus United States Patents 9,404,127 (the "'127 Patent") and 9,364,435 (the "'435 Patent"). In its petitions, Moderna sought to invalidate all claims of each patent based on Moderna's allegation that the claims are anticipated and/or obvious. We filed a response to Moderna's petitions on June 14, 2018. On September 12, 2018, the Patent Trial and Appeal Board (the "PTAB") rendered its decision to institute Inter Partes Review of both the '127 Patent and the '435 Patent.

The status of these patents is as follows: with respect to the '127 Patent, the PTAB held all claims as invalid as anticipated on September 10, 2019. However this decision was vacated and sent back (remanded) to the PTAB for a rehearing, pending the Supreme Court's decision whether to grant certiorari in a different case, United States v. Athrax, Inc. ("US v. Athrax"), the holding of which could impact the findings in the '127 Patent matter. The Supreme Court granted certiorari in US v. Athrax on October 13, 2020 (i.e. agreed to review the decision appealed from a lower court). Because the Supreme Court has yet to render its opinion in US v. Athrax, the '127 Patent hearing remains in abeyance, with no decision reached as to the validity of its claims.

With respect to the '435 Patent, the PTAB rendered its decision on September 11, 2019, holding certain claims invalid and upholding other claims as valid. On November 13, 2019, we and Moderna both appealed the decision. Moderna filed its opening brief on May 4, 2020 and we provided our opening and responsive brief on July 27, 2020. Moderna subsequently filed its reply and responsive brief on October 5, 2020, and we filed our reply brief on November 9, 2020. The appeal with respect to the '435 Patent is currently awaiting an oral argument date.

On January 9, 2019, Moderna filed an additional petition requesting Inter Partes Review of Arbutus United States Patent 8,058,069 (the "'069 Patent"). The PTAB instituted Inter Partes Review of the '069 Patent and, on July 23, 2020, issued a decision upholding all claims as valid. On September 23, 2020, Moderna appealed the '069 Inter Partes Review decision to the Federal Circuit Court of Appeals. Moderna filed its opening brief in that appeal on February 23, 2021, Arbutus filed its

responsive brief on May 11, 2021, and Moderna filed its reply brief on July 1, 2021. A hearing date has not yet been set for this matter.

Moderna and Merck European Oppositions

On April 5, 2018, Moderna and Merck, Sharp & Dohme Corporation ("Merck") filed Notices of Opposition to Arbutus' European patent EP 2279254 ("the '254 Patent") with the European Patent Office ("EPO"), requesting that the '254 Patent be revoked in its entirety for all contracting states. We filed a response to Moderna and Merck's oppositions on September 3, 2018. A hearing was conducted before the Opposition Division of the EPO on October 10, 2019. At the conclusion of the hearing, the EPO upheld an auxiliary request adopting the amendment, as put forth by us, of certain claims of the '254 Patent. In February 2020 Moderna and Merck filed Notices of Appeal challenging the EPO's grant of the auxiliary request. Merck filed its notice of appeal on February 24, 2020 and Moderna on February 27, 2020. We filed our response on September 18, 2020.

While we are the patent holder, the '127 Patent, the '435 Patent, the '069 Patent and the '254 Patent have been licensed to Genevant and are included in the exclusive rights licensed by us to Genevant under the Genevant License.

CRITICAL ACCOUNTING POLICIES AND SIGNIFICANT JUDGEMENTS AND ESTIMATES

This management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with United States generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe there have been no significant changes in our critical accounting policies and estimates as discussed in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Annual Report on Form 10-K for the year ended December 31, 2020.

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 condensed 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:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Total revenue	$ 2,329	$ 1,514	$ 4,442	$ 3,005
Operating expenses	20,971	14,655	38,760	29,293
Loss from operations	(18,642)	(13,141)	(34,318)	(26,288)
Other income (loss)	(745)	(946)	(1,450)	(1,660)
Net loss	(19,387)	(14,087)	(35,768)	(27,948)
Dividend accretion of convertible preferred shares	(3,266)	(2,995)	(6,478)	(5,973)
Net loss attributable to common shares	$ (22,653)	$ (17,082)	$ (42,246)	$ (33,921)

Revenue

Revenues are summarized in the following table:

	Three Months Ended June 30,			
	2021	% of Total	2020	% of Total
	(in thousands, except percentages)			
Revenue from collaborations and licenses				
Acuitas Therapeutics, Inc.	$ 1,163	50 %	$ 761	50 %
Other milestone and royalty payments	22	1 %	63	4 %
Non-cash royalty revenue				
Alnylam Pharmaceuticals, Inc.	1,144	49 %	690	46 %
Total revenue	$ 2,329	100 %	$ 1,514	100 %

	Six Months Ended June 30,			
	2021	% of Total	2020	% of Total
	(in thousands, except percentages)			
Revenue from collaborations and licenses				
Acuitas Therapeutics, Inc.	$ 2,258	51 %	$ 1,514	50 %
Other milestone and royalty payments	81	2 %	146	5 %
Non-cash royalty revenue				
Alnylam Pharmaceuticals, Inc.	2,103	47 %	1,345	45 %
Total revenue	$ 4,442	100 %	$ 3,005	100 %

Total revenue increased $0.8 million and $1.4 million for the three and six months ended June 30, 2021 compared to the same periods in 2020, primarily due to an increase in license royalty revenue from Alnylam and Acuitas due to the growth of Alnylam's sales of ONPATTRO.

Operating expenses

Operating expenses are summarized in the following table:

	Three Months Ended June 30,			
	2021	% of Total	2020	% of Total
	(in thousands, except percentages)			
Research and development	$ 15,396	73 %	$ 10,465	71 %
General and administrative	4,445	21 %	3,566	24 %
Depreciation	436	2 %	501	3 %
Change in fair value of contingent consideration	694	3 %	116	1 %
Site consolidation	—	— %	7	— %
Total operating expenses	$ 20,971	100 %	$ 14,655	100 %

	Six Months Ended June 30,			
	2021	% of Total	2020	% of Total
	(in thousands, except percentages)			
Research and development	$ 28,766	74 %	$ 20,881	71 %
General and administrative	8,292	21 %	7,119	24 %
Depreciation	879	2 %	1,001	3 %
Change in fair value of contingent consideration	823	2 %	228	1 %
Site consolidation	—	— %	64	— %
Total operating expenses	$ 38,760	100 %	$ 29,293	100 %

Research and development

Research and development expenses consist primarily of personnel expenses, fees paid to clinical research organizations and contract manufacturers, consumables and materials, consulting, and other third party expenses to support our clinical and pre-clinical activities, as well as a portion of stock-based compensation and general overhead costs.

Research and development expenses increased $4.9 million and $7.9 million for the three and six months ended June 30, 2021, respectively, compared to the same periods in 2020. The increase was due primarily to higher expenses for our clinical development and discovery programs, including activities under our collaboration with Assembly and internal research efforts to treat COVID-19 and future coronavirus outbreaks, both of which initiated in mid-2020.

A significant portion of our research and development 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.

General and administrative

General and administrative expenses increased $0.9 million and $1.2 million for the three and six months ended June 30, 2021, respectively, as compared to the same periods in 2020, due primarily to increases in non-cash stock-based compensation expense and professional fees.

Change in fair value of contingent consideration

Contingent consideration is a liability we assumed from our acquisition of Arbutus, Inc. in March 2015. In general, as time passes and assuming no changes to the assumptions related to the contingency, the fair value of the contingent consideration increases as the progress of our programs get closer to triggering contingent payments based on certain sales milestones of our first commercial product for chronic HBV. As AB-729 continues to progress through Phase 2a proof-of-concept clinical trials, we increase our assumption regarding probability of success commensurate with the progression of the program, which increases the liability.

Site consolidation

The final portion of expenses associated with our site consolidation and organizational restructuring of our business in Warminster, PA, which was substantially completed in 2018, were fully recognized in 2020.

Other income (loss)

Other income (loss) is summarized in the following table:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Interest income	$ 31	$ 200	$ 70	$ 545
Interest expense	(763)	(1,099)	(1,535)	(2,140)
Foreign exchange (losses) / gains	(13)	(47)	15	(65)
Total other loss	$ (745)	$ (946)	$ (1,450)	$ (1,660)

Interest income

The decrease in interest income for the three and six months ended June 30, 2021 compared to the same period in 2020 was due primarily to a general decline in market interest rates.

Interest expense

Interest expense for the three and six months ended June 30, 2021 consisted primarily of non-cash amortization of discount and issuance costs related to the sale of a portion of our ONPATTRO royalty interest to OMERS in July 2019.

Foreign exchange gains (losses)

In connection with our site consolidation to Warminster, PA, our Canadian dollar-denominated expenses and cash balances have decreased significantly now that a majority of our business transactions are based in the United States. We continue to incur expenses and hold some cash balances in Canadian dollars, and as such, we will remain subject to risks associated with foreign currency fluctuations.

LIQUIDITY AND CAPITAL RESOURCES

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

	Six Months Ended June 30,	
	2021	2020
	(in thousands)	
Net loss	$ (35,768)	$ (27,948)
Non-cash items	5,005	5,114
Net change in operating items	(1,127)	(1,420)
Net cash used in operating activities	(31,890)	(24,254)
Net cash provided by (used in) investing activities	(20,526)	20,970
Net cash provided by financing activities	31,163	17,440
Effect of foreign exchange rate changes on cash and cash equivalents	(44)	(56)
(Decrease) increase in cash and cash equivalents	(21,297)	14,100
Cash and cash equivalents, beginning of period	52,251	31,799
Cash and cash equivalents, end of period	$ 30,954	$ 45,899

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

For the six months ended June 30, 2021, $31.9 million of cash was used in operating activities compared to $24.3 million for the six months ended June 30, 2020, an increase of $7.6 million. The increase was due primarily to a $7.1 million increase in research and development expenses due to higher expenses for our clinical development and discovery programs, including activities under our collaboration with Assembly and internal research efforts to treat COVID-19 and future coronavirus outbreaks, both of which initiated in mid-2020.

For the six months ended June 30, 2021, net cash used in investing activities was $20.5 million, consisting primarily of additional investments in marketable securities of $54.1 million, partially offset by maturities of investments in marketable securities of $34.4 million. For the six months ended June 30, 2020, net cash provided by investing activities was $21.0 million consisting of maturities of $46.9 million and purchases of investments in marketable securities of $25.9 million.

For the six months ended June 30, 2021 and 2020, net cash provided by financing activities was $31.2 million and $17.4 million, respectively, due primarily to proceeds from sales of common shares under our Open Market Sale Agreement, as amended, with Jefferies LLC ("Jefferies").

Sources of Liquidity

As of June 30, 2021, we had cash, cash equivalents and investments of $121.3 million. We had no outstanding debt as of June 30, 2021.

We have an Open Market Sale Agreement ("Sale Agreement") with Jefferies dated December 20, 2018, as amended on December 20, 2019 (the "2019 Amended Sale Agreement"), under which we may issue and sell common shares, from time to time, under a shelf registration statement on Form S-3 (File No. 333-235674), filed with the SEC on December 23, 2019 (the "2019 Shelf Registration Statement"). In July 2020, we fully utilized the remaining availability under the 2019 Amended Sale Agreement. In August 2020, we entered into a new amendment (the "2020 Amended Sale Agreement") with Jefferies whereby we may issue and sell common shares from time to time for an aggregate sales price of up to $75 million under the 2019 Shelf Registration Statement.

On August 28, 2020, we filed a new $200 million shelf registration statement on Form S-3 (File No. 333-248467) with the SEC (the "2020 Shelf Registration Statement"). On March 4, 2021, we filed another prospectus supplement with the SEC (the "March 2021 Prospectus Supplement") in connection with the offering of up to an additional $75.0 million of its common shares pursuant to the Sale Agreement, as amended, under the 2020 Shelf Registration Statement.

During the six months ended June 30, 2021, we issued 7,845,925 common shares pursuant to the 2020 Amended Sale Agreement, resulting in net proceeds of approximately $30.7 million. For the six months ended June 30, 2020, we issued 6,438,265 common shares pursuant to the 2019 Amended Sale Agreement, resulting in net proceeds of approximately $17.4 million.

As of June 30, 2021, there was approximately $9.8 million available under the August 2020 Prospectus Supplement and $75.0 million available under the March 2021 Prospectus Supplement.

Additionally, we have a royalty entitlement on ONPATTRO, a drug developed by Alnylam that incorporates our LNP technology and was approved by the FDA and the EMA during the third quarter of 2018 and was launched by Alnylam immediately upon approval in the United States. In July 2019, we sold a portion of this royalty interest to OMERS, effective as of January 1, 2019, for $20 million in gross proceeds before advisory fees. OMERS will retain this entitlement until it has received $30 million in royalties, at which point 100% of such royalty interest on future global net sales of ONPATTRO will revert to us. OMERS has assumed the risk of collecting up to $30 million of future royalty payments from Alnylam and Arbutus is not obligated to reimburse OMERS if they fail to collect any such future royalties. If this royalty entitlement reverts to us, it has the potential to provide an active royalty stream or to be otherwise monetized again in full or in part. In addition to the royalty from the Alnylam LNP license agreement, we are also receiving a second, lower royalty interest on global net sales of ONPATTRO originating from a settlement agreement and subsequent license agreement with Acuitas. The royalty from Acuitas has been retained by us and was not part of the royalty sale to OMERS.

Cash requirements

At June 30, 2021, we held an aggregate of $121.3 million in cash, cash equivalents and investments. We believe that our cash resources as of June 30, 2021 will be sufficient to fund our operations through the third quarter of 2022 based on our expectation of a net cash burn between $70 million and $75 million in 2021. 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 effects of the COVID-19 pandemic on our business, the medical community and the global economy;
- revenue earned from our legacy collaborative partnerships and licensing agreements, including potential royalty payments from Alnylam's ONPATTRO;
- 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 or licensing arrangements to advance our product candidates;
- delays in the development of our product candidates due to pre-clinical and clinical findings;
- our decisions to in-license or acquire additional products, product candidates or technology for development;
- our ability to attract and retain development or commercialization partners, and their effectiveness in carrying out the development and ultimate commercialization of one or more of our product candidates;
- whether batches of product candidates that we manufacture fail to meet specifications resulting in clinical trial delays and investigational and remanufacturing costs;
- the decisions, and the timing of decisions, made by health regulatory agencies regarding our technology and product candidates;
- competing products, product candidates and technological and market developments; and
- costs associated with prosecuting and enforcing our patent claims and other intellectual property rights, including litigation and arbitration arising in the course of our business activities.

We intend to seek funding to maintain and advance our business from a variety of sources including public or private equity or debt financing, potential monetization transactions, collaborative or licensing arrangements with pharmaceutical companies, government grants and contracts and other strategic transactions and funding opportunities. There can be no assurance that funding will be available at all or on acceptable terms to permit further development of our research and development programs. Further, the continued spread of COVID-19 has also led to severe disruption and volatility in the global capital markets, which could increase our cost of capital and adversely affect our ability to access the capital markets in the future.

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 our 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.

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, 2020.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2021. The term “disclosure controls and procedures”, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure, particularly during the period in which this Quarterly Report on Form 10-Q was being prepared. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their desired objectives, and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of June 30, 2021, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

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, 2021 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

For information regarding legal matters, please refer to note 8. Contingencies and Commitments to the Condensed Consolidated Financial Statements contained in Part I of this Quarterly Report on Form 10-Q, which is incorporated herein by reference.

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, 2020.

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

EXHIBIT INDEX

Number	Description
3.1	Notice of Articles and Articles of the Company, as amended (incorporated herein by reference to Exhibit 3.1 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 16, 2018)
3.2	Amendment to Articles of the Company (incorporated herein by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, filed with the SEC on November 7, 2018)
4.1	Governance Agreement between the Company and Roivant Sciences Ltd., a Bermuda exempted company, dated January 11, 2015 (incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K/A filed with the SEC on January 26, 2015)
10.1	Arbutus Biopharma Corporation 2016 Omnibus Share and Incentive Plan, as supplemented and amended (incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on June 1, 2021)
31.1*	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2**	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	The following materials from Arbutus Biopharma Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2021, formatted in inline XBRL (eXtensible Business Reporting Language): (i) Condensed Consolidated Balance Sheets; (ii) Condensed Consolidated Statements of Operations; (iii) Condensed Consolidated Statements of Comprehensive Loss; (iv) Condensed Consolidated Statements of Stockholders' Equity; (v) Condensed Consolidated Statements of Cash Flows; and (vi) Notes to Condensed Consolidated Financial Statements
104	Cover page interactive data file (embedded within the inline XBRL document and included in Exhibit 101)

* Filed herewith.

** Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on August 5, 2021.

ARBUTUS BIOPHARMA CORPORATION

By: /s/ William H Collier
William H Collier
President and Chief Executive Officer

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, William Collier, 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 the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 5, 2021

/s/ William Collier
Name: William Collier
Title: President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David Hastings, 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 the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 5, 2021

/s/ David Hastings
Name: David Hastings
Title: Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO SECTION 906

OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Arbutus Biopharma Corporation (the "Company") for the quarter ended June 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I William Collier, 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 5, 2021

/s/ William Collier
Name: William Collier
Title: President and Chief Executive Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO SECTION 906

OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Arbutus Biopharma Corporation (the "Company") for the quarter ended June 30, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I David Hastings, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: August 5, 2021

/s/ David Hastings
Name: David Hastings
Title: Chief Financial Officer