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, 2024

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 7, 2024, the registrant had 188,782,029 common shares, without par value, outstanding.

ARBUTUS BIOPHARMA CORPORATION

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 amounts)

	June 30, 2024	December 31, 2023
Assets		
Current assets:		
Cash and cash equivalents	$ 62,788	$ 26,285
Investments in marketable securities, current	79,198	99,718
Accounts receivable	1,767	1,776
Prepaid expenses and other current assets	4,467	4,248
Total current assets	148,220	132,027
Property and equipment, net of accumulated depreciation of $12,611 (December 31, 2023: $11,900)	4,059	4,674
Investments in marketable securities, non-current	6,527	6,284
Right of use asset	1,237	1,416
Total assets	$ 160,043	$ 144,401
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities	$ 11,108	$ 10,271
Deferred license revenue, current	11,034	11,791
Lease liability, current	453	425
Total current liabilities	22,595	22,487
Liability related to sale of future royalties	5,859	6,953
Contingent consideration	7,991	7,600
Lease liability, non-current	1,144	1,343
Total liabilities	37,589	38,383
Stockholders' equity		
Common shares		
Authorized: unlimited number without par value		
Issued and outstanding: 188,739,044 (December 31, 2023: 169,867,414)	1,403,334	1,349,821
Additional paid-in capital	81,751	81,270
Deficit	(1,314,323)	(1,276,652)
Accumulated other comprehensive loss	(48,308)	(48,421)
Total stockholders' equity	122,454	106,018
Total liabilities and stockholders' equity	$ 160,043	$ 144,401

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,	
	2024	2023	2024	2023
Revenue				
Collaborations and licenses	$ 1,155	$ 3,885	$ 2,094	$ 9,394
Non-cash royalty revenue	571	766	1,164	1,944
Total Revenue	1,726	4,651	3,258	11,338
Operating expenses				
Research and development	15,551	17,692	30,954	35,967
General and administrative	7,547	5,980	12,859	11,532
Change in fair value of contingent consideration	211	(636)	391	(363)
Total operating expenses	23,309	23,036	44,204	47,136
Loss from operations	(21,583)	(18,385)	(40,946)	(35,798)
Other income				
Interest income	1,829	1,461	3,374	2,729
Interest expense	(34)	(171)	(78)	(369)
Foreign exchange (loss)/gain	(8)	1	(21)	5
Total other income	1,787	1,291	3,275	2,365
Net loss	$ (19,796)	$ (17,094)	$ (37,671)	$ (33,433)
Loss per share				
Basic and diluted	$ (0.11)	$ (0.10)	$ (0.21)	$ (0.20)
Weighted average number of common shares				
Basic and diluted	188,041,489	166,063,284	181,842,519	163,855,661
Comprehensive loss				
Unrealized gain on available-for-sale securities	$ 63	$ 166	$ 113	$ 1,020
Comprehensive loss	$ (19,733)	$ (16,928)	$ (37,558)	$ (32,413)

See accompanying notes to the condensed consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

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

	Common Shares		Additional Paid-In Capital	Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Number of Shares	Share Capital				
Balance December 31, 2023	169,867,414	$ 1,349,821	$ 81,270	$ (1,276,652)	$ (48,421)	$ 106,018
Stock-based compensation expense	—	—	2,014	—	—	2,014
Issuance of common shares pursuant to the Open Market Sale Agreement	8,666,077	21,765	—	—	—	21,765
Issuance of common shares pursuant to exercise of options	1,126,691	4,268	(1,814)	—	—	2,454
Issuance of common shares pursuant to ESPP	121,563	271	(60)	—	—	211
Issuance of common shares upon vesting of RSUs	410,482	1,190	(1,190)	—	—	—
Unrealized gain on available-for-sale securities	—	—	—	—	50	50
Net loss	—	—	—	(17,875)	—	(17,875)
Balance March 31, 2024	180,192,227	$ 1,377,315	$ 80,220	$ (1,294,527)	$ (48,371)	$ 114,637
Stock-based compensation expense	—	—	3,180	—	—	3,180
Issuance of common shares pursuant to the Open Market Sale Agreement	7,833,922	22,359	—	—	—	22,359
Issuance of common shares pursuant to exercise of options	712,895	3,660	(1,649)	—	—	2,011
Unrealized gain on available-for-sale securities	—	—	—	—	63	63
Net loss	—	—	—	(19,796)		(19,796)
Balance June 30, 2024	188,739,044	$ 1,403,334	$ 81,751	$ (1,314,323)	$ (48,308)	$ 122,454

See accompanying notes to the condensed consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

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

	Common Shares		Additional Paid-In Capital	Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Number of Shares	Share Capital				
Balance December 31, 2022	157,455,363	$ 1,318,737	$ 72,406	$ (1,203,803)	$ (50,488)	$ 136,852
Stock-based compensation expense	—	—	2,131	—	—	2,131
Issuance of common shares pursuant to the Open Market Sale Agreement	7,423,622	19,862	—	—	—	19,862
Issuance of common shares pursuant to exercise of options	101,356	457	(198)	—	—	259
Issuance of common shares pursuant to ESPP	151,852	397	(101)	—	—	296
Unrealized gain on available-for-sale securities	—	—	—	—	854	854
Net loss	—	—	—	(16,339)	—	(16,339)
Balance March 31, 2023	165,132,193	$ 1,339,453	$ 74,238	$ (1,220,142)	$ (49,634)	$ 143,915
Stock-based compensation expense	—	—	2,964	—	—	2,964
Issuance of common shares pursuant to the Open Market Sale Agreement	1,790,546	4,742	—	—	—	4,742
Unrealized loss on available-for-sale securities	—	—	—	—	166	166
Net loss	—	—	—	(17,094)	—	(17,094)
Balance June 30, 2023	166,922,739	$ 1,344,195	$ 77,202	$ (1,237,236)	$ (49,468)	$ 134,693

See accompanying notes to the condensed consolidated financial statements.

ARBUTUS BIOPHARMA CORPORATION

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

	Six Months Ended June 30,	
	2024	**2023**
OPERATING ACTIVITIES		
Net loss	$ (37,671)	$ (33,433)
Non-cash items:		
Depreciation	711	676
Stock-based compensation expense	5,194	5,095
Change in fair value of contingent consideration	391	(363)
Non-cash royalty revenue	(1,164)	(1,944)
Non-cash interest expense	70	366
Net accretion and amortization of investments in marketable securities	(1,229)	(919)
Net change in operating items:		
Accounts receivable	9	(1,262)
Prepaid expenses and other assets	(40)	(577)
Accounts payable and accrued liabilities	837	(7,224)
Change in deferred license revenue	(757)	(7,128)
Other liabilities	(150)	(147)
Net cash used in operating activities	(33,799)	(46,860)
INVESTING ACTIVITIES		
Purchase of investments in marketable securities	(57,982)	(49,405)
Disposition of investments in marketable securities	79,601	68,500
Acquisition of property and equipment	(96)	(976)
Net cash provided by investing activities	21,523	18,119
FINANCING ACTIVITIES		
Issuance of common shares pursuant to the Open Market Sale Agreement	44,124	24,604
Issuance of common shares pursuant to exercise of stock options	4,465	259
Issuance of common shares pursuant to exercise of ESPP	211	296
Net cash provided by financing activities	48,800	25,159
Effect of foreign exchange rate changes on cash and cash equivalents	(21)	3
Increase/(decrease) in cash and cash equivalents	36,503	(3,579)
Cash and cash equivalents, beginning of period	26,285	30,776
Cash and cash equivalents, end of period	$ 62,788	$ 27,197

See accompanying notes to the condensed consolidated financial statements.

1. Nature of business and future operations

Description of the Business

Arbutus Biopharma Corporation ("Arbutus" or "the Company") is a clinical-stage biopharmaceutical company leveraging its extensive virology expertise to develop novel therapeutics with distinct mechanisms of action, which can potentially be combined to provide a functional cure for patients with chronic hepatitis B virus (cHBV) infection. The Company believes the key to success in developing a functional cure involves suppressing hepatitis B virus deoxyribonucleic acid, reducing hepatitis B surface antigen and boosting HBV-specific immune responses. The Company's pipeline of internally developed, proprietary compounds includes an RNAi therapeutic, imdusiran (AB-729), and an oral PD-L1 inhibitor, AB-101. Imdusiran has generated meaningful clinical data demonstrating an impact on both surface antigen reduction and reawakening of the HBV-specific immune response. Imdusiran is currently in two Phase 2a combination clinical trials. AB-101 is currently being evaluated in a Phase 1a/1b clinical trial.

The Company continues to protect and defend its intellectual property, which is the subject of the Company's ongoing lawsuits against Moderna and Pfizer/BioNTech for their use of the Company's patented lipid nanoparticle (LNP) technology in their COVID-19 vaccines. With respect to the Moderna lawsuit, the claim construction hearing occurred on February 8, 2024. On April 3, 2024, the court provided its claim construction ruling in which it construed the disputed claim terms and agreed with the Company's position on most of the disputed claim terms. On August 5, 2024, the Company and Genevant Sciences Ltd. (Genevant), along with Moderna, filed a Stipulation to Extend Time (the Stipulation) with the court requesting an amended case schedule to accommodate certain outstanding discovery from Moderna and third parties, as specified in the Stipulation, which would move the start of the trial from April 21, 2025 to September 24, 2025, subject to the court's availability. The Stipulation, and the new deadlines set forth therein, are subject to the approval of the court. A conference to discuss the Stipulation has been scheduled by the court for August 15, 2024. The lawsuit against Pfizer/BioNTech is ongoing and a date for a claim construction hearing has not been set.

Liquidity

At June 30, 2024, the Company had an aggregate of $148.5 million in cash, cash equivalents and investments in marketable securities. The Company had no outstanding debt as of June 30, 2024. The Company believes it has sufficient cash resources to fund its operations for at least the next 12 months.

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.

2. Significant accounting policies

Basis of presentation and principles of consolidation

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, 2023 included in the Company's Annual Report on Form 10-K for the year ended December 31, 2023. These unaudited condensed consolidated financial statements include the accounts of Arbutus Biopharma Corporation and its one wholly-owned subsidiary, Arbutus Biopharma, Inc., and reflect, in the opinion of management, all adjustments and reclassifications necessary to fairly present the Company's financial position as of June 30, 2024 and December 31, 2023, the Company's results of operations for the three and six months ended June 30, 2024 and 2023, and the Company's cash flows for the six months ended June 30, 2024 and 2023. Such adjustments are of a normal recurring nature. The results of operations for the three and six months ended June 30, 2024 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, 2023, except as described below under the section entitled "Recent Accounting Pronouncements".

All intercompany balances and transactions have been eliminated.

Net loss per share

Net loss per share is calculated based on the weighted average number of common shares outstanding. Diluted net loss per share does not differ from basic net loss per share for the three and six months ended June 30, 2024 and 2023, since the effect of including potential common shares would be anti-dilutive. For the six months ended June 30, 2024, potential common shares of 20.5 million pertaining to outstanding stock options and unvested restricted stock units were excluded from the calculation of net loss per share. A total of approximately 20.2 million outstanding stock options were excluded from the calculation for the six months ended June 30, 2023.

Revenue from collaborations and licenses

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.

The Company's collaboration agreements fall under the scope of Accounting Standards Codification (ASC) Topic 808, *Collaborative Arrangements* (ASC 808), when both parties are active participants in the arrangement and are exposed to significant risks and rewards. For certain arrangements under the scope of ASC 808, the Company analogizes to ASC Topic 606, *Revenue from Contracts with Customers* (ASC 606), for some aspects, including for the delivery of a good or service (i.e., a unit of account).

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.

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.

Deferred Revenue

When consideration is received or is unconditionally due from a customer, collaborator or licensee prior to the Company completing its performance obligation to the customer, collaborator or licensee under the terms of a contract, deferred revenue is recorded. Deferred revenue expected to be recognized as revenue within the 12 months following the balance sheet date is classified as a current liability. Deferred revenue not expected to be recognized as revenue within the 12 months following the balance sheet date is classified as a long-term liability. In accordance with ASC Topic 210-20, *Balance Sheet - Offsetting* (ASC 210-20) the Company's deferred revenue is offset by a contract asset as further discussed in Note 9.

Segment information

The Company operates as a single segment.

Recent accounting pronouncements

In November 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures (ASU 2023-07), which requires disclosure of significant segment expenses and other segment items on an annual and interim basis under ASC 280. ASU 2023-07 is effective for fiscal years beginning after December 15, 2023, and for interim periods beginning after December 15, 2024. Early adoption is permitted and the amendments in this ASU should be applied on a retrospective basis to all periods presented. The Company has not determined the impact ASU 2023-07 may have on the Company's financial statement disclosures.

In December 2023, the FASB issued ASU No. 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures (ASU 2023-09), which improves income tax disclosures by requiring: (1) consistent categories and greater disaggregation of information in the rate reconciliation, and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. ASU 2023-09 is effective for annual periods beginning after December 15, 2024. Early adoption is permitted. The ASU indicates that all entities will apply the guidance prospectively with an option for retroactive application to each period presented in the financial statements. The Company has not determined the impact ASU 2023-09 may have on the Company's financial statement disclosures.

The Company has reviewed all other recently issued standards and has determined that such standards will not have a material impact on the Company's financial statements or do not otherwise apply to the Company's operations.

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 are 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 $8.0 million as of June 30, 2024 and the increase of $0.4 million from December 31, 2023 has been recorded as a component of total operating expenses in the statements of operations and comprehensive loss for the six months ended June 30, 2024. 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, 2024	Level 1	Level 2	Level 3	Total
		(in thousands)		
Assets				
Cash and cash equivalents	$ 62,788	$ —	$ —	$ 62,788
Investments in marketable securities, current	—	79,198	—	79,198
Investments in marketable securities, non-current	—	6,527	—	6,527
Total	$ 62,788	$ 85,725	$ —	$ 148,513
Liabilities				
Contingent consideration	—	—	7,991	7,991
Total	$ —	$ —	$ 7,991	$ 7,991

As of December 31, 2023	Level 1	Level 2	Level 3	Total
		(in thousands)		
Assets				
Cash and cash equivalents	$ 26,285	$ —	$ —	$ 26,285
Investments in marketable securities, current	—	99,718	—	99,718
Investments in marketable securities, non-current	—	6,284	—	6,284
Total	$ 26,285	$ 106,002	$ —	$ 132,287
Liabilities				
Contingent consideration	—	—	7,600	7,600
Total	$ —	$ —	$ 7,600	$ 7,600

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

	Liability at beginning of the period	Change in fair value of liability	Liability at end of the period
		(in thousands)	
Six Months Ended June 30, 2024	$ 7,600	$ 391	$ 7,991
Six Months Ended June 30, 2023	$ 7,531	$ (363)	$ 7,168

See Note 4 for additional information regarding the fair value of the Company's investments in marketable securities.

4. Investments in marketable securities

Investments in marketable securities consisted of the following:

As of June 30, 2024	Amortized Cost	Gross Unrealized Gain[1]	Gross Unrealized Loss[1]	Fair Value
		(in thousands)		
Cash equivalents				
Money market	$ 35,462	$ —	$ —	$ 35,462
US treasury bills	$ 20,882	$ —	$ —	$ 20,882
Total	$ 56,344	$ —	$ —	$ 56,344
Investments in marketable short-term securities				
US corporate bonds	41,860	—	(90)	41,770
US treasury bills	35,435	—	—	35,435
Yankee bonds	2,000	—	(7)	1,993
Total	$ 79,295	$ —	$ (97)	$ 79,198
Investments in marketable long-term securities				
US corporate bonds	6,552	—	(25)	6,527
Total	$ 6,552	$ —	$ (25)	$ 6,527

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

As of December 31, 2023	Amortized Cost	Gross Unrealized Gain[1]	Gross Unrealized Loss[1]	Fair Value
		(in thousands)		
Cash equivalents				
Money market fund	$ 18,029	$ —	$ —	$ 18,029
Total	$ 18,029	$ —	$ —	$ 18,029
Investments in marketable short-term securities				
US government agency bonds	$ 17,918	$ —	$ (44)	$ 17,874
US corporate bonds	71,045	30	(189)	70,886
Yankee bonds	2,000	—	(17)	1,983
US government bonds	$ 9,001	$ —	$ (26)	$ 8,975
Total	$ 99,964	$ 30	$ (276)	$ 99,718
Investments in marketable long-term securities				
US corporate bonds	6,273	18	(7)	6,284
Total	$ 6,273	$ 18	$ (7)	$ 6,284

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

The contractual term to maturity of the $79.2 million of short-term marketable securities held by the Company as of June 30, 2024 is less than one year. As of June 30, 2024, the Company held $6.5 million of long-term marketable securities with contractual maturities of more than one year, but less than five years. As of December 31, 2023, the Company's $99.7 million of short-term marketable securities had contractual maturities of less than one year, while the Company's $6.3 million of long-term marketable securities had maturities of more than one year, but less than five years.

At June 30, 2024 and December 31, 2023, the Company had 28 and 37, respectively, available-for-sale investment debt securities in an unrealized loss position without an allowance for credit losses. Unrealized losses on the Company's investments in debt securities have not been recognized into income as the issuers' bonds are of high credit quality and the decline in fair value is largely due to market conditions and/or changes in interest rates. The Company does not intend to sell and it is more likely than not that the Company will not be required to sell the securities prior to the anticipated recovery of their amortized cost basis. The issuers continue to make timely interest payments on the bonds. The fair value is expected to recover as the bonds approach maturity.

Accrued interest receivable on investments in marketable securities of $0.3 million at both June 30, 2024 and December 31, 2023 is included in prepaid expenses and other current assets.

The Company had realized gains of less than $0.1 million for the three and six months ended June 30, 2024 and no realized gains or losses for the same periods in 2023.

See Note 3 for additional information regarding the fair value of the Company's investments in marketable securities.

5. Investment in Genevant

In April 2018, the Company entered into an agreement with Roivant Sciences Ltd. (Roivant), its largest shareholder, to launch Genevant, a company focused on a broad range of RNA-based therapeutics enabled by the Company's LNP and ligand conjugate delivery technologies. The Company licensed 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, as amended, if a third party sublicensee of intellectual property licensed by Genevant from the Company commercializes a sublicensed product, the Company becomes entitled to receive a specified percentage of certain revenue that may be received by Genevant for such sublicense, including royalties, commercial milestones and other sales-related revenue, or, if less, tiered low single-digit royalties on net sales of the sublicensed product. The specified percentage is 20% in the case of a mere sublicense (i.e., naked sublicense) by Genevant without additional contribution and 14% in the case of a bona fide collaboration with Genevant.

Additionally, if Genevant receives proceeds from an action for infringement by any third parties of the Company's intellectual property licensed to Genevant, the Company would be entitled to receive, after deduction of litigation costs, 20% of the proceeds received by Genevant or, if less, tiered low single-digit royalties on net sales of the infringing product (inclusive of the proceeds from litigation or settlement, which would be treated as net sales).

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. As of June 30, 2024, 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, 2024	December 31, 2023
	(in thousands)	
Trade accounts payable	$ 2,652	$ 3,223
Research and development accruals	4,008	2,884
Professional fee accruals	1,970	815
Payroll accruals	2,478	3,349
Total accounts payable and accrued liabilities	$ 11,108	$ 10,271

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, 2024, the Company estimated an effective annual interest rate of approximately 2.1%. 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, 2024, the Company has recorded an aggregate of $23.8 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.

During the six months ended June 30, 2024, the Company recognized non-cash royalty revenue of $1.2 million and related non-cash interest expense of less than $0.1 million. During the six months ended June 30, 2023, the Company recognized non-cash royalty revenue of $1.9 million and related non-cash interest expense of $0.4 million.

The table below shows the activity related to the net liability for the six months ended June 30, 2024 and 2023:

	Six Months Ended June 30,	
	2024	2023
	(in thousands)	
Net liability related to sale of future royalties - beginning balance	$ 6,953	$ 10,365
Non-cash royalty revenue	(1,164)	(1,944)
Non-cash interest expense	70	366
Net liability related to sale of future royalties - ending balance	$ 5,859	$ 8,787

In addition to the royalty from the LNP License Agreement, the Company is also receiving a second royalty interest ranging from 0.75% to 1.125% on global net sales of ONPATTRO, with 0.75% applying to sales greater than $500 million, 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

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 $8.0 million as of June 30, 2024.

9. Collaborations, contracts and licensing agreements

Collaborations

Qilu Pharmaceutical Co., Ltd.

In December 2021, the Company entered into a technology transfer and licensing agreement (the License Agreement) with Qilu Pharmaceutical Co., Ltd. (Qilu), pursuant to which the Company granted Qilu a sublicensable, royalty-bearing license, under certain intellectual property owned by the Company, which is non-exclusive as to development and manufacturing and exclusive with respect to commercialization of imdusiran, including pharmaceutical products that include imdusiran, for the treatment or prevention of hepatitis B in China, Hong Kong, Macau and Taiwan (the Territory).

In partial consideration for the rights granted by the Company, Qilu paid the Company a one-time upfront cash payment of $40.0 million, net of withholding taxes, on January 5, 2022, and agreed to pay the Company milestone payments totaling up to $245.0 million, net of withholding taxes, upon the achievement of certain technology transfer, development, regulatory and commercialization milestones. Qilu paid $4.4 million of withholding taxes to the Chinese taxing authority on the Company's behalf, related to the upfront cash payment. In addition, Qilu agreed to pay the Company double-digit royalties into the low twenties percent based upon annual net sales of imdusiran in the Territory. The royalties are payable on a product-by-product and region-by-region basis, subject to certain limitations.

Qilu is responsible for all costs related to developing, obtaining regulatory approval for, and commercializing imdusiran for the treatment or prevention of hepatitis B in the Territory. Qilu is required to use commercially reasonable efforts to develop, seek regulatory approval for, and commercialize at least one imdusiran product candidate in the Territory. A joint development

committee has been established between the Company and Qilu to coordinate and review the development, manufacturing and commercialization plans. Both parties also have entered into a supply agreement and related quality agreement pursuant to which the Company will manufacture or have manufactured and supply Qilu with all quantities of imdusiran necessary for Qilu to develop and commercialize in the Territory until the Company has completed manufacturing technology transfer to Qilu and Qilu has received all approvals required for it or its designated contract manufacturing organization to manufacture imdusiran in the Territory.

Concurrent with the execution of the License Agreement, the Company entered into a Share Purchase Agreement (the Share Purchase Agreement) with Anchor Life Limited, a company established pursuant to the applicable laws and regulations of Hong Kong and an affiliate of Qilu (the Investor), pursuant to which the Investor purchased 3,579,952 of the Company's common shares at a purchase price of USD $4.19 per share, which was a 15% premium on the thirty-day average closing price of the common shares as of the close of trading on December 10, 2021 (the Share Transaction). The Company received $15.0 million of gross proceeds from the Share Transaction on January 6, 2022. The common shares sold to the Investor in the Share Transaction represented approximately 2.5% of the common shares outstanding immediately prior to the execution of the Share Purchase Agreement.

The License Agreement falls under the scope of ASC 808 as both parties are active participants in the arrangement and are exposed to significant risks and rewards. While this arrangement is in the scope of ASC 808, the Company analogizes to ASC 606 for some aspects of this arrangement, including for the delivery of a good or service (i.e., a unit of account). In accordance with the guidance, the Company identified the following commitments under the arrangement: (i) rights to develop, use, sell, have sold, offer for sale and import any product comprised of Licensed Product (as defined in the License Agreement) (the Qilu License) and (ii) drug supply obligations and manufacturing technology transfer (the Manufacturing Obligations). The Company determined that these two commitments are not distinct performance obligations for purposes of recognizing revenue as the manufacturing process is highly specialized and Qilu would not be able to benefit from the Qilu License without the Company's involvement in the manufacturing activities until the transfer of the manufacturing know-how is complete. As such, the Company will combine these commitments into one performance obligation to which the transaction price will be allocated to and will recognize this transaction price associated with the bundled performance obligation over time using an inputs method based on labor hours expended by the Company on its Manufacturing Obligations.

The Company determined the initial transaction price of the combined performance obligation to be $50.4 million, which includes the $40.0 million upfront fee, $4.4 million of withholding taxes paid by Qilu on behalf of the Company, the premium paid for the Share Transaction of $4.1 million. The Company determined the milestone payments to be variable consideration subject to constraint at inception. At the end of each subsequent reporting period, the Company will reevaluate the probability of achievement of the future development, regulatory, and sales milestones subject to constraint and, if necessary, will adjust its estimate of the overall transaction price. Any such adjustments will be recorded on a cumulative catch-up basis, which would affect revenues and earnings in the period of adjustment.

The following table outlines the transaction price and the changes to the related liability balance:

	Transaction Price	Cumulative Collaboration Revenue Recognized	Deferred License Revenue
		(in thousands)	
Combined performance obligation	$ 50,445	$ 37,438	$ 13,007
Less contract asset			(1,973)
Total deferred license revenue			11,034

The Company recognized $0.5 million and $0.8 million of revenue based on labor hours expended by the Company on its Manufacturing Obligations during the three and six months ended June 30, 2024, respectively, and $3.0 million and $7.1 million during the three and six months ended June 30, 2023, respectively.

As of June 30, 2024, the balance of the deferred license revenue was $13.0 million, which, in accordance with ASC 210-20, was partially offset by the contract asset associated with the manufacturing cost reimbursement of $2.0 million, resulting in a net deferred license revenue liability of $11.0 million.

The Company incurred $0.6 million of incremental costs in obtaining the Qilu License, which the Company capitalized in other current assets and other assets and amortizes as a component of general and administrative expense commensurate with the recognition of the combined performance obligation. The Company recognized amortization expense of less than $0.1 million for both the three and six months ended June 30, 2024 and amortization expense of less than $0.1 million for the three months ended June 30, 2023 and $0.1 million for the six months ended June 30, 2023.

The Company reevaluates the transaction price and the total estimated labor hours expected to be incurred to satisfy the performance obligations and adjusts the deferred revenue at the end of each reporting period. Such changes will result in a change to the amount of collaboration revenue recognized and deferred revenue.

Barinthus Biotherapeutics plc

In July 2021, the Company entered into a clinical collaboration agreement with Barinthus Biotherapeutics plc (Barinthus), formerly Vaccitech plc, to evaluate imdusiran followed by Barinthus' VTP-300, an HBV antigen specific immunotherapy, and ongoing nucleos(t)ide analogue therapy in patients with cHBV. This clinical trial was amended and is now dosing patients in an additional treatment arm that includes an approved PD-1 monoclonal antibody inhibitor, nivolumab (Opdivo®).

The Company is responsible for managing this Phase 2a proof-of-concept clinical trial, subject to oversight by a joint development committee comprised of representatives from the Company and Barinthus. The Company and Barinthus retain full rights to their respective product candidates and will split all costs associated with the clinical trial. The Company incurred $0.5 million and $1.0 million of expenses, net of Barinthus's 50% share, during the three and six months ended June 30, 2024, respectively, and $0.3 million and $0.8 million during the three and six months ended June 30, 2023 respectively, and reflected those costs in research and development in the statements of operations and comprehensive loss.

Royalty Entitlements

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 the LNP License Agreement with Alnylam that entitles Alnylam to develop and commercialize products with the Company's LNP technology. Alnylam launched ONPATTRO, the first approved application of the Company's LNP technology, in 2018. 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. From the inception of the royalty sale through June 30, 2024, an aggregate of $23.8 million of royalties have been earned by OMERS.

The Company also is receiving a second royalty interest of 0.75% to 1.125% on global net sales of ONPATTRO, with 0.75% applying to sales greater than $500 million, 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,	
	2024	2023	2024	2023
	(in thousands)		(in thousands)	
Revenue from collaborations and licenses				
Acuitas Therapeutics, Inc.	$ 642	$ 861	$ 1,337	$ 2,266
Qilu Pharmaceutical Co., Ltd.	513	3,024	757	7,128
Non-cash royalty revenue				
Alnylam Pharmaceuticals, Inc.	571	766	1,164	1,944
Total revenue	$ 1,726	$ 4,651	$ 3,258	$ 11,338

10. Shareholders' equity

Authorized share capital

The Company's authorized share capital consists of an unlimited number of common shares and preferred shares, without par value, and 1,164,000 Series A participating convertible preferred shares, without par value.

Open Market Sale Agreement

The Company has an Open Market Sale Agreement[SM] with Jefferies LLC (Jefferies) dated December 20, 2018, as amended by Amendment No. 1, dated December 20, 2019, Amendment No. 2, dated August 7, 2020 and Amendment No. 3, dated March 4, 2021 (as amended, the Sale Agreement), under which the Company may issue and sell common shares, from time to time.

On December 23, 2019, the Company filed a shelf registration statement on Form S-3 with the Securities and Exchange Commission (the SEC) (File No. 333-235674) and accompanying base prospectus, which was declared effective by the SEC on January 10, 2020 (the January 2020 Registration Statement), for the offer and sale of up to $150.0 million of the Company's securities. The January 2020 Registration Statement also contained a prospectus supplement for an offering of up to $50.0 million of the Company's common shares pursuant to the Sale Agreement. This prospectus supplement was fully utilized during 2020. On August 7, 2020, the Company filed a prospectus supplement with the SEC (the August 2020 Prospectus Supplement) for an offering of up to an additional $75.0 million of its common shares pursuant to the Sale Agreement under the January 2020 Registration Statement. The August 2020 Prospectus Supplement was fully utilized during 2020. The January 2020 Registration Statement expired in January 2023.

On August 28, 2020, the Company filed a shelf registration statement on Form S-3 with the SEC (File No. 333-248467) and accompanying base prospectus, which was declared effective by the SEC on October 22, 2020 (the October 2020 Registration Statement), for the offer and sale of up to $200.0 million of the Company's securities. On March 4, 2021, the Company filed a prospectus supplement with the SEC (the March 2021 Prospectus Supplement) for an offering of up to an additional $75.0 million of its common shares pursuant to the Sale Agreement under the October 2020 Registration Statement. The March 2021 Prospectus Supplement was fully utilized during 2021. On October 8, 2021, the Company filed a prospectus supplement with the SEC (the October 2021 Prospectus Supplement) for an offering of up to an additional $75.0 million of its common shares pursuant to the Sale Agreement under the October 2020 Registration Statement. The October 2020 Registration Statement expired in October 2023 with $29.3 million that was not utilized under the October 2021 Prospectus Supplement.

On November 4, 2021, the Company filed a shelf registration statement on Form S-3 with the SEC (File No. 333-260782) and accompanying base prospectus, which was declared effective by the SEC on November 18, 2021 (the November 2021 Registration Statement), for the offer and sale of up to $250.0 million of the Company's securities.

On March 3, 2022, the Company filed a prospectus supplement with the SEC (the March 2022 Prospectus Supplement) for an offering of up to an additional $100.0 million of its common shares pursuant to the Sale Agreement under: (i) the January 2020 Registration Statement; (ii) the October 2020 Registration Statement; and (iii) the November 2021 Registration Statement, of which only the November 2021 Registration Statement remains active.

During the three and six months ended June 30, 2024, the Company issued 7,833,922 and 16,499,999 common shares pursuant to the Sale Agreement, respectively, resulting in net proceeds of approximately $22.4 million and $44.1 million, respectively. During the three and six months ended June 30, 2023, the Company issued 1,790,546 and 9,214,168 common shares pursuant to the Sale Agreement, respectively, resulting in net proceeds of $4.7 million and $24.6 million, respectively.

As of June 30, 2024, there was approximately $25.4 million of common shares remaining available in aggregate under the March 2022 Prospectus Supplement, pursuant to the November 2021 Registration Statement.

Stock-based compensation

The table below summarizes information about the Company's stock-based compensation for the three and six months ended June 30, 2024 and 2023 and the expense recognized in the condensed consolidated statements of operations:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
	(in thousands, except share and per share data)			
Stock options				
Options granted during period	424,200	547,600	4,163,000	4,298,400
Weighted average exercise price	$ 3.27	$ 2.75	$ 2.49	$ 2.88
Restricted stock units (RSUs)				
Restricted stock units granted during period	—	—	1,316,200	1,344,550
Grant date fair value	$ —	$ —	$ 2.40	$ 2.90
Stock compensation expense				
Research and development	$ 1,119	$ 977	$ 2,160	$ 1,852
General and administrative	2,061	1,987	3,034	3,243
Total stock compensation expense	$ 3,180	$ 2,964	$ 5,194	$ 5,095

11. Subsequent events

On July 29, 2024, the Company's Board of Directors took action, effective August 1, 2024, to streamline the organization to focus its efforts on advancing the clinical development of imdusiran and AB-101, and therefore ceased all discovery efforts and discontinued its IM-PROVE III clinical trial. In taking these steps to streamline the organization, the Company is implementing a 40% reduction in its workforce, primarily affecting the discovery and general and administrative functions. As a result, the Company will incur a one-time restructuring charge in the third quarter of 2024 of approximately $3.0 million to $4.0 million, which includes approximately $2.9 million of cash severance and continued benefits payments, a non-cash impairment charge for laboratory equipment of approximately $0.5 million and approximately $0.2 million to $0.4 million of cash payments to vendors for close-out activities in connection with the cessation of discovery efforts and the discontinuation of the IM-PROVE III clinical trial.

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, 2023 and our unaudited condensed consolidated financial statements for the three and six months ended June 30, 2024. 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 subsidiary, 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, preclinical studies, clinical trials, prospects and the plans of management;
- the potential for our product candidates to achieve their desired or anticipated outcomes;
- the expected cost, timing and results of our clinical development plans and clinical trials, including our clinical collaborations with third parties;
- the development and commercialization of a curative combination regimen for chronic hepatitis B infection, a disease of the liver caused by the hepatitis B virus;
- the potential of our product candidates to improve upon the standard of care and contribute to a functional curative combination treatment regimen;
- obtaining necessary regulatory approvals;
- obtaining adequate financing through a combination of financing activities and operations;
- the expected returns and benefits from strategic alliances, licensing agreements, and research collaborations with third parties, and the timing thereof;
- our expectations regarding our technology licensed to third parties, and the timing thereof;
- our anticipated revenue and expense fluctuation and guidance;
- our expectations regarding the timing of announcing data from our ongoing clinical trials;
- our expectations regarding current patent disputes and litigation;
- our expectation of a net cash burn between $63 million and $67 million in 2024; and
- our belief that we have sufficient cash resources to fund our operations into the fourth quarter of 2026,

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, 2023 (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 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, 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 leveraging its extensive virology expertise to develop novel therapeutics with distinct mechanisms of action, which can potentially be combined to provide a functional cure for patients with chronic hepatitis B virus (cHBV) infection. We believe the key to success in developing a functional cure involves suppressing hepatitis B virus deoxyribonucleic acid (HBV DNA), reducing hepatitis B surface antigen (HBsAg) and boosting HBV-specific immune responses. Our pipeline of internally developed, proprietary compounds includes an RNAi therapeutic, imdusiran (AB-729), and an oral PD-L1 inhibitor, AB-101. Imdusiran has generated meaningful clinical data demonstrating an impact on both surface antigen reduction and reawakening of the HBV-specific immune response. Imdusiran is currently in two Phase 2a combination clinical trials. AB-101 is currently being evaluated in a Phase 1a/1b clinical trial.

We continue to protect and defend our intellectual property, which is the subject of our ongoing lawsuits against Moderna and Pfizer/BioNTech for their use of our patented lipid nanoparticle (LNP) technology in their COVID-19 vaccines. With respect to the Moderna lawsuit, the claim construction hearing occurred on February 8, 2024. On April 3, 2024, the court provided its claim construction ruling in which it construed the disputed claim terms and agreed with our position on most of the disputed claim terms. On August 5, 2024, we and Genevant Sciences Ltd. (Genevant), along with Moderna, filed a Stipulation to Extend Time (the Stipulation) with the court requesting an amended case schedule to accommodate certain outstanding discovery from Moderna and third parties, as specified in the Stipulation, which would move the start of the trial from April 21, 2025 to September 24, 2025, subject to the court's availability. The Stipulation, and the new deadlines set forth therein, are subject to the approval of the court. A conference to discuss the Stipulation has been scheduled by the court for August 15, 2024. The lawsuit against Pfizer/BioNTech is ongoing and a date for a claim construction hearing has not been set.

Strategy

The two core elements of our strategy are: 1) developing a portfolio of compounds that target HBV; and 2) combining therapeutic product candidates with complementary mechanisms of action to develop a functional cure for people with cHBV infection.

We believe that a combination of compounds that can suppress HBV DNA replication and HBsAg expression as well as boost patients' HBV-specific immune response could address the most important elements to achieving a functional cure. Functional cure is defined as undetectable HBV DNA and HBsAg levels six months after discontinuation of all treatment. We are developing imdusiran as a cornerstone in a combination therapy that also includes antivirals and immunologics. We believe that a combination therapy delivered over a finite treatment period that results in a significant increase in the functional cure rate (i.e., a cure rate of at least 20%) would be a meaningful advancement for patients with cHBV infection.

Our HBV product pipeline includes the following:

- Imdusiran is our proprietary, conjugated GalNAc, subcutaneously-delivered RNAi therapeutic product candidate that suppresses all HBV antigens, including HBsAg expression, which is thought to be a key prerequisite to enable reawakening of a patient's immune system to respond to HBV. Over 170 patients with cHBV infection have been dosed with imdusiran in our Phase 1 and ongoing Phase 2a clinical trials. Clinical data generated thus far has shown imdusiran to be generally safe and well-tolerated, while also providing meaningful reductions in HBsAg and HBV DNA.

- AB-101 is our proprietary oral PD-L1 inhibitor that has the potential to reawaken patients' HBV-specific immune response by inhibiting PD-L1. AB-101 is currently in a Phase 1a/1b clinical trial (AB-101-001) evaluating the safety, tolerability, pharmacokinetics (PK), and pharmacodynamics (PD) of single- and multiple-ascending oral doses in healthy subjects and patients with cHBV infection. Part 1 of this clinical trial enrolled four sequential cohorts of eight healthy subjects each (6 active: 2 placebo) receiving a single dose of AB-101 at increasing dose levels up to 25 mg. The data showed that AB-101 was well-tolerated with evidence of dose-dependent receptor occupancy. In the 25mg cohort, all five evaluable subjects showed evidence of receptor occupancy between 50-100%. We have moved into Part 2 of this clinical trial which evaluates multiple-ascending doses of AB-101 in healthy subjects and we expect to report this preliminary data in the second half of 2024.

Our strategy is to position imdusiran as a potential cornerstone therapeutic in combination with AB-101 or other agents with potentially complementary mechanisms of action. We are currently conducting two Phase 2a clinical trials combining imdusiran with other agents. Upon successful completion of our AB-101-001 clinical trial, we may initiate a Phase 2 clinical

trial combining imdusiran, AB-101 and nucleos(t)ide analogue (NA) therapy in patients with cHBV infection. The intent of these trials is to initially lower HBsAg levels with imdusiran and then administer a complementary agent, in this case an immune modulator or a therapeutic vaccine, to further lower HBsAg levels and promote anti-HBV immunity. We believe that if we can lower HBsAg and promote immunity, we may achieve and sustain undetectable HBV DNA and HBsAg levels, potentially leading to a functional cure.

Our imdusiran development program includes the following Phase 2a clinical trials:

- Imdusiran in combination with Peg-IFNα-2a and ongoing standard-of-care NA therapy in patients with cHBV infection (IM-PROVE I). Preliminary data reported from this IM-PROVE I trial suggest that the addition of Peg-IFNα-2a to imdusiran treatment was generally safe, well-tolerated and, in some patients, resulted in undetectable HBsAg at end-of-treatment and sustained HBsAg loss 24 weeks after completing imdusiran and Peg-IFNα-2a treatment.
- Imdusiran in combination with VTP-300, Barinthus Biotherapeutics plc's (Barinthus and formerly Vaccitech plc), HBV antigen specific immunotherapy, and ongoing standard-of-care NA therapy in patients with cHBV infection (IM-PROVE II). Preliminary data reported from this IM-PROVE II clinical trial showed that dosing with imdusiran and then VTP-300 achieved statistical significance in lowering HBsAg levels after the end of the treatment period. We are also dosing patients in an additional cohort of this clinical trial that, in addition to imdusiran and VTP-300, includes up to two low doses of nivolumab (Opdivo®), an approved PD-1 monoclonal antibody inhibitor. Preliminary end-of-treatment data from this additional cohort are expected in the second half of 2024.

On July 29, 2024, our Board of Directors took action, effective August 1, 2024, to streamline the organization to focus our efforts on advancing the clinical development of imdusiran and AB-101, and therefore ceased all discovery efforts and discontinued our IM-PROVE III clinical trial. In taking these steps to streamline the organization, we are implementing a 40% reduction in our workforce, primarily affecting the discovery and general and administrative functions. As a result, we will incur a one-time restructuring charge in the third quarter of 2024 of approximately $3.0 million to $4.0 million, which includes approximately $2.9 million of cash severance and continued benefits payments, a non-cash impairment charge for laboratory equipment of approximately $0.5 million and approximately $0.2 million to $0.4 million of cash payments to vendors for close-out activities in connection with the cessation of discovery efforts and the discontinuation of our IM-PROVE III clinical trial. With these organizational changes and our ongoing cost management efforts, we now expect our current cash, cash equivalents and investments in marketable securities will be sufficient to fund our operations into the fourth quarter of 2026.

Our Product Candidates

Our pipeline consists of two product candidates that are designed to suppress HBV DNA, reduce HBsAg and/or boost HBV-specific immune responses, as follows:

We continue to explore expansion opportunities for our pipeline through development activities and potential strategic alliances.

RNAi therapeutic (imdusiran, AB-729)

RNAi therapeutics represent a 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 with cHBV infection. Reducing HBsAg is widely believed to be a key prerequisite to enable a patient's immune system to reawaken and respond against the virus.

Imdusiran (AB-729) is a subcutaneously-delivered single-trigger RNAi therapeutic targeted to hepatocytes using our proprietary covalently conjugated GalNAc delivery technology. Imdusiran reduces all HBV antigens and inhibits viral replication.

Data from our Phase 1a/1b clinical trial evaluating single and multiple doses of imdusiran in healthy subjects and patients with cHBV (AB-729-001) showed that repeat dosing of 60mg and 90mg of imdusiran at different dosing intervals was well-tolerated and resulted in robust and comparable HBsAg declines and supported our view that 60mg every 8 weeks was an appropriate dose to move forward in our Phase 2a clinical trials.

IM-PROVE I Phase 2a proof-of-concept clinical trial to evaluate imdusiran in combination with Peg-IFNα-2a

We have completed enrollment in a randomized, open label, multicenter Phase 2a proof-of-concept clinical trial investigating the safety and antiviral activity of imdusiran in combination with short courses of Peg-IFNα-2a and ongoing NA therapy in 43 stably NA-suppressed, HBeAg negative, non-cirrhotic patients with cHBV infection. The primary objective of this trial is to initially lower HBsAg levels with imdusiran and then administer Peg-IFNα-2a as an immunomodulator to promote anti-HBV immune reawakening. We believe that if we can lower HBsAg and promote immune reawakening, we may achieve and sustain undetectable HBV DNA and HBsAg levels, potentially leading to a functional cure. After 24-weeks of dosing with imdusiran (60mg every 8 weeks), patients were randomized into one of four arms to receive ongoing Peg-IFNα-2a plus NA therapy for either 12 or 24 weeks, with or without additional doses of imdusiran. After completion of the assigned Peg-IFNα-2a treatment period, all patients remain on NA therapy for the initial 24-week follow-up period, and then discontinue NA treatment, provided they meet protocol-defined stopping criteria. Patients who stop NA therapy enter an intensive follow-up period for 48 weeks.

At the European Association for the Study of the Liver (EASL) Congress in June 2024, we presented data from this clinical trial that suggests that the addition of Peg-IFNα-2a to imdusiran treatment was generally safe, well-tolerated and, in some patients, resulted in undetectable HBsAg at end-of-treatment and sustained HBsAg loss 24 weeks after completing imdusiran and Peg-IFNα-2a treatment.

Select key data from this Phase 2a clinical trial include:

- 33% of patients in Cohort A1 who received 48 weeks of imdusiran combined with a short course of Peg-IFNα-2a (24 weeks) with their ongoing NA therapy achieved undetectable HBsAg at the end-of-treatment (EOT) that was maintained in 100% of these patients 24 weeks after completing imdusiran and Peg-IFNα-2a treatment.
- Undetectable HBsAg was achieved in 67% of patients with HBsAg less than 1,000 IU/mL at baseline in Cohort A1.
- A total of six patients who received 24 weeks of Peg-IFNα-2a (n=4 Cohort A1; n=2 Cohort A2) seroconverted, with HBsAg loss accompanied by high titers of anti-HBsAg antibodies. All six of these patients have stopped NA therapy, with two of those patients reaching 12 weeks off all therapy with sustained undetectable levels of HBsAg and HBV DNA. The remaining four patients are at various timepoints less than 12 weeks off therapy with undetectable levels of HBsAg and HBV DNA.

These data from the IM-PROVE I trial suggest that the combination of imdusiran and 24 weeks of Peg-IFNα-2a was generally safe and well-tolerated. There were no serious adverse events related to imdusiran or Peg-IFNα-2a, and no adverse events leading to discontinuation. The most common imdusiran-related treatment emergent adverse events (TEAEs) were transient ALT elevations and injection site bruising. The Peg-IFNα-2a-related TEAEs were consistent with the known safety profile of Peg-IFNα-2a.

IM-PROVE II Phase 2a proof-of-concept clinical trial to evaluate imdusiran in combination with Barinthus' VTP-300

Through a clinical collaboration agreement with Barinthus that we entered into in July 2021, we have completed enrollment in IM-PROVE II, a Phase 2a proof-of-concept clinical trial evaluating the safety, antiviral activity and immunogenicity of Barinthus' VTP-300, an HBV antigen specific immunotherapy, administered after imdusiran in patients with cHBV infection. The initial trial design enrolled 40 NA-suppressed, HBeAg negative or positive, non-cirrhotic cHBV infected patients. The primary objective of this trial is to initially lower HBsAg levels with imdusiran and then administer VTP-300 as an immunomodulator to promote anti-HBV immune reawakening. We believe that if we can lower HBsAg and promote immune reawakening, we may achieve and sustain undetectable HBV DNA and HBsAg levels, potentially leading to a functional cure. All patients received imdusiran (60mg every 8 weeks, 4 doses) plus NA therapy for 24 weeks. After week 24, treatment with imdusiran was stopped. Patients continued only on NA therapy and were randomized to receive VTP-300 or placebo at week 26 and week 30. At week 48, all patients were evaluated for eligibility to discontinue NA therapy and will be followed for an additional 24 to 48 weeks.

Preliminary data were presented at the EASL Congress in June 2024 from 38 of 40 patients in the IM-PROVE II clinical trial that were on stable NA therapy throughout the treatment period, received imdusiran (60mg every 8 weeks) for 24 weeks and were then randomized to receive either VTP-300 (treatment arm) or placebo at Weeks 26 and 30. The data showed that at 24-weeks post treatment with imdusiran and VTP-300, statistical significance ($p<0.05$) was achieved in HBsAg levels between the treatment arm (n=5) and placebo (n=6). In addition, more patients maintained HBsAg thresholds of <100 IU/mL and <10 IU/mL when administered VTP-300 versus placebo. Treatment with imdusiran and VTP-300 was generally safe and well-tolerated. There were no serious adverse events, Grade 3 or 4 adverse events or discontinuations due to adverse events.

Additionally, we amended the IM-PROVE II clinical trial protocol to include another cohort that will receive imdusiran, VTP-300 and low dose nivolumab (Opdivo®), an approved PD-1 inhibitor. In this additional cohort, patients will receive imdusiran (60mg every 8 weeks, 4 doses) plus NA therapy for 24 weeks, followed by administration of VTP-300 plus up to two low doses of nivolumab while remaining on NA therapy. At week 48, all patients will be evaluated for eligibility to discontinue NA therapy, and will be followed for an additional 24 to 48 weeks. Preliminary end-of-treatment data from this additional cohort are expected in the second half of 2024.

The IM-PROVE II clinical trial is being managed by us, subject to oversight by a joint development committee comprised of representatives from both companies. We and Barinthus retain full rights to our respective product candidates and will split all costs associated with the clinical trial. Pursuant to the agreement, the parties may undertake a larger Phase 2b clinical trial depending on the results of the initial Phase 2a clinical trial.

IM-PROVE III Phase 2a proof-of-concept clinical trial to evaluate imdusiran in combination with durvalumab

We have terminated our Phase 2a clinical trial evaluating the safety, tolerability and antiviral activity of imdusiran and NA therapy in combination with intermittent low doses of durvalumab, an approved anti-PD-L1 monoclonal antibody, in patients with cHBV infection (IM-PROVE III) prior to dosing any participants. This decision was based on a prioritization of resources and the projected availability of clinical data from this trial.

Oral PD-L1 Inhibitor (AB-101)

PD-L1 inhibitors complement our pipeline of agents and could potentially be an important part of a combination therapy for the treatment of HBV by reawakening the immune system. 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 cHBV infection. One approach to boost HBV-specific T-cells is to prevent PD-L1 proteins from binding to PD-1 and thus inhibiting the HBV-specific immune function of T-cells. Immune checkpoints such as PD-1/PD-L1 play an important role in the induction and maintenance of immune tolerance and in T-cell activation.

AB-101 is our proprietary oral small-molecule PD-L1 inhibitor candidate that we believe will allow for controlled checkpoint blockade while minimizing the systemic safety issues typically seen with checkpoint inhibitor antibody therapies. AB-101 is differentiated from monoclonal antibody checkpoint inhibitors such as durvalumab (anti-PD-L1) and nivolumab (anti-PD-1) because it is liver centric, has a much shorter duration of effect which may provide dosing and safety advantages, and has a novel mechanism of action as it binds to PD-L1 on the surface of cells causing dimerization and internalization of the PD-L1 protein followed by degradation within hours.

Preclinical data indicates that AB-101 mediates activation and reinvigoration of HBV-specific T-cells from cHBV infected patients. In June 2022, we presented a poster at the 2022 EASL ILC highlighting data from a study that was designed to assess

the preclinical activity of AB-101 and the compound's ability to reinvigorate patient HBV-specific T-cells. Studies were conducted using a transgenic MC38 tumor mouse model and peripheral blood mononuclear cells (PBMCs) from cHBV infected patients. The data presented showed that once daily oral administration of AB-101 resulted in profound tumor reduction that was associated with T-cell activation. In addition, AB-101 activates and reinvigorates HBV-specific T-cells in vitro. Additionally, preclinical data in an HBV mouse model were presented at the 2022 AASLD Liver Meeting showing that monotherapy with AB-101 reduced PD-L1 in liver immune cells, confirming liver target engagement of the compound. Combination treatment with AB-101 and an HBV-targeting GalNAc-siRNA agent resulted in activation and increased frequency of HBV-specific T-cells and greater anti-HBsAg antibody production. This favorable preclinical profile supports further development of AB-101 as a therapeutic modality for cHBV infection treatment. We believe AB-101, when used in combination with imdusiran or other approved and investigational agents, could potentially lead to a functional cure in HBV chronically infected patients.

In April 2023, we received verbal communication from the FDA that the AB-101 IND application had been placed on clinical hold. For purposes of clarity, the Phase 1 clinical trial had not been initiated and we had not dosed any patients with AB-101. In May 2023, we received the clinical hold letter from the FDA, which raised questions about certain preclinical data and aspects of the clinical trial design. We thus decided to pursue other regulatory pathways outside of the US while evaluating our path forward with the FDA. In July 2023, the New Zealand Medicine Safety Authority (Medsafe) approved our clinical trial application (CTA) for a Phase 1 clinical trial in New Zealand for AB-101, and we believe the protocol approved by Medsafe adequately addresses the clinical trial design and safety monitoring issues raised by the FDA. We included the clinical hold letter from the FDA as part of our CTA application with Medsafe. Subsequent to its approval in New Zealand, our CTA for this Phase 1 clinical trial with AB-101 was approved in several additional countries outside of the U.S.

Phase 1a/1b clinical trial to evaluate safety, tolerability and PK/PD of AB-101 (AB-101-001)

We are currently dosing healthy subjects in our Phase 1a/1b clinical trial for AB-101 (AB-101-001). The AB-101-001 clinical trial is designed to investigate the safety, tolerability and PK/PD of single and multiple-ascending oral doses of AB-101 for up to 28 days in healthy subjects and patients with cHBV infection. The trial will be conducted in three parts starting with single ascending doses in healthy subjects, followed by multiple ascending doses in healthy subjects and culminating with multiple doses in patients with cHBV infection. Safety and PK/PD assessments will be performed prior to dose escalation in all parts of the clinical trial. Part 1 of this clinical trial enrolled four sequential cohorts of eight healthy subjects each (6 active: 2 placebo) receiving a single dose of AB-101 at increasing dose levels up to 25 mg. The data showed that AB-101 was well-tolerated with evidence of dose-dependent receptor occupancy. In the 25mg cohort, all five evaluable subjects showed evidence of receptor occupancy between 50-100%. We have moved into Part 2 of this clinical trial which evaluates multiple-ascending doses of AB-101 in healthy subjects and we expect to report this preliminary data in the second half of 2024.

Other Collaborations, Royalty Entitlements and Intellectual Property Litigation

Collaboration with Qilu Pharmaceutical Co., Ltd. (Qilu)

In December 2021, we entered into a technology transfer and license agreement (the License Agreement) with Qilu, pursuant to which we granted Qilu a sublicensable, royalty-bearing license, under certain intellectual property owned by us, which is non-exclusive as to development and manufacturing and exclusive with respect to commercialization of imdusiran, including pharmaceutical products that include imdusiran, for the treatment or prevention of hepatitis B in China, Hong Kong, Macau and Taiwan (the Territory).

In partial consideration for the rights granted by us, Qilu paid us a one-time upfront cash payment of $40 million on January 5, 2022 and agreed to pay us milestone payments totaling up to $245 million, net of withholding taxes, upon the achievement of certain technology transfer, development, regulatory and commercialization milestones. Qilu also agreed to pay us double-digit royalties into the low twenties percent based upon annual net sales of imdusiran in the Territory. The royalties are payable on a product-by-product and region-by-region basis, subject to certain limitations.

Qilu is responsible for all costs related to developing, obtaining regulatory approval for, and commercializing imdusiran for the treatment or prevention of hepatitis B in the Territory. Qilu is required to use commercially reasonable efforts to develop, seek regulatory approval for, and commercialize at least one imdusiran product candidate in the Territory. A joint development committee has been established between us and Qilu to coordinate and review the development, manufacturing and commercialization plans. Both parties also have entered into a supply agreement and related quality agreement pursuant to which we will manufacture or have manufactured and supply Qilu with all quantities of imdusiran necessary for Qilu to develop

and commercialize in the Territory until we have completed manufacturing technology transfer to Qilu and Qilu has received all approvals required for it or its designated contract manufacturing organization to manufacture imdusiran in the Territory.

Concurrent with the execution of the License Agreement, we entered into a Share Purchase Agreement (the Share Purchase Agreement) with Anchor Life Limited, a company established pursuant to the applicable laws and regulations of Hong Kong and an affiliate of Qilu (the Investor), pursuant to which the Investor purchased 3,579,952 of our common shares at a purchase price of USD $4.19 per share, which was a 15% premium on the thirty-day average closing price of our common shares as of the close of trading on December 10, 2021 (the Share Transaction). We received $15.0 million of gross proceeds from the Share Transaction on January 6, 2022. The common shares sold to the Investor in the Share Transaction represented approximately 2.5% of our common shares outstanding immediately prior to the execution of the Share Purchase Agreement.

Alnylam Pharmaceuticals, Inc. (Alnylam) and Acuitas Therapeutics, Inc. (Acuitas)

We have two royalty entitlements to Alnylam's 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 LNP delivery technology. Alnylam's ONPATTRO, which represents the first approved application of our LNP technology, was approved by the 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, 2024, an aggregate of $23.8 million of royalties have been earned by OMERS.

We also have rights to a second royalty interest ranging from 0.75% to 1.125% on global net sales of ONPATTRO, with 0.75% applying to sales greater than $500 million, originating from a settlement agreement and subsequent license agreement with 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, a company focused on a broad range of RNA-based therapeutics enabled by our LNP and ligand conjugate delivery technologies. We licensed 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, as amended, if a third party sublicensee of intellectual property licensed by Genevant from us commercializes a sublicensed product, we become entitled to receive a specified percentage of certain revenue that may be received by Genevant for such sublicense, including royalties, commercial milestones and other sales-related revenue, or, if less, tiered low single-digit royalties on net sales of the sublicensed product. The specified percentage is 20% in the case of a mere sublicense (i.e., naked sublicense) by Genevant without additional contribution and 14% in the case of a bona fide collaboration with Genevant.

Additionally, if Genevant receives proceeds from an action for infringement by any third parties of our intellectual property licensed to Genevant, we would be entitled to receive, after deduction of litigation costs, 20% of the proceeds received by Genevant or, if less, tiered low single-digit royalties on net sales of the infringing product (inclusive of the proceeds from litigation or settlement, which would be treated as net sales).

In July 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, 2024, 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 Petition

On February 21, 2018, Moderna Therapeutics, Inc. (Moderna) filed a petition requesting the United States Patent and Trademark Office to institute an Inter Partes Review of Arbutus United States Patent 9,404,127 (the '127 Patent). In its petition, Moderna sought to invalidate all claims of the patent based on Moderna's allegation that the claims are anticipated and/or obvious. We filed a response to Moderna's petition 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 the '127 Patent. The '127 Patent represents only a fraction of our extensive LNP patent portfolio.

With respect to the '127 Patent, the PTAB held all claims as invalid on September 10, 2019, by reason of anticipatory prior art. However, this decision was vacated and sent back (remanded) to the PTAB for a rehearing, pending the U.S. Supreme Court's (Supreme Court) decision whether to grant certiorari in a different case, United States v. Athrex, Inc. (US v. Athrex), the holding of which could impact the findings in the '127 Patent matter. The Supreme Court granted certiorari in US v. Athrex on October 13, 2020 (i.e., agreed to review the decision appealed from a lower court). Until the Supreme Court rendered its opinion in US v. Athrex, the '127 Patent hearing remained in abeyance, with no decision reached as to the validity of its claims. The Supreme Court decided on the US v. Athrex case on June 21, 2021, following which the Federal Circuit reinstated the appeal sua sponte, requiring the parties to brief how the case should proceed in light of the Supreme Court's opinion or for the Appellant to waive the challenge. We elected to waive the challenge and proceed with the appeal at the Federal Circuit. The opening brief was filed on October 25, 2021. Moderna's responsive brief was filed on February 24, 2022 and our reply brief was filed on April 26, 2022. An oral hearing for this matter was held on November 4, 2022. On April 11, 2023, the Federal Circuit rendered its opinion, affirming the PTAB's finding that all claims of the '127 Patent are invalid by reason of anticipation.

Moderna and Merck European Opposition

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. Both Merck and Moderna perfected their appeals by filing Grounds of Appeal on April 30, 2020. We filed our responses to the appeals on September 18, 2020. On March 22, 2022, Moderna filed further written submissions to which we and Genevant responded in August 2022. On April 18, 2023, we and Genevant withdrew our auxiliary request, however, the original (main) request remains in the action. We and Moderna informed the Board of Appeals that we would not object to a remittance of the matter without a hearing to the Opposition Division of the EPO. The hearing in this matter before the Board of Appeals was subsequently cancelled and resubmitted to the Opposition Division (i.e., lower board) of the EPO. On October 31, 2023, the Opposition Division issued a summons for oral proceedings and provided its preliminary and non-binding opinion on the subject matter to be discussed at the hearing. On November 3, 2023, we responded to the summons and on January 15, 2024, Moderna and Merck filed their reply to the written opinion of the Opposition Division, as well as to our written submission of November 3, 2023. We responded to Moderna and Merck's reply on April 5, 2024. Oral proceedings were held on June 6, 2024, and the Opposition Division upheld the '254 Patent but declined our and Genevant's request to broaden certain claims in the '254 Patent. We have not received any indication from Moderna and Merck if they plan to appeal the decision, and Genevant and we are currently evaluating whether to appeal the Opposition Division's decision not to allow Genevant and us to broaden our claims under the '254 Patent.

While we are the patent holder, the '127 Patent, the '254 Patent, the other patents in our LNP portfolio have been licensed to Genevant and are included in the rights licensed by us to Genevant under the Genevant License.

Patent Infringement Litigation vs. Moderna

On February 28, 2022, we and Genevant filed a lawsuit in the U.S. District Court for the District of Delaware against Moderna, Inc. and a Moderna affiliate (collectively, Moderna) seeking damages for infringement of U.S. Patent Nos. 8,058,069, 8,492,359, 8,822,668, 9,364,435, 9,504,651, and 11,141,378 in the manufacture and sale of MRNA-1273, Moderna's vaccine for COVID-19. The patents relate to nucleic acid-lipid particles and lipid vesicles, as well as compositions and methods for their use. The lawsuit does not seek an injunction or otherwise seek to impede the sale, manufacture or distribution of MRNA-1273. However, we seek fair compensation for Moderna's use of our patented technology that was developed with great effort and at great expense, without which Moderna's COVID-19 vaccine would not have been successful. On May 6, 2022, Moderna filed a partial motion to dismiss the claims "relating to Moderna's sale and provision of COVID-19 vaccine doses to the U.S. Government." On November 2, 2022, the court issued an Order denying Moderna's motion. On November 30, 2022, Moderna filed its Answer to the Complaint and Counterclaims. We and Genevant filed our Answer to Moderna's Counterclaims on December 21, 2022. On February 14, 2023, the U.S. Department of Justice filed a Statement of Interest in the action. On February 16, 2023, the court held an Initial Pretrial Conference after which it issued an Order, dated February 16, 2023, ordering that within 14 days of the issuance of the Order, the parties and the U.S. Government were to submit letters regarding the impact of the Governments' Statement of Interest on the scheduling of the matter. On March 10, 2023, the court reaffirmed its denial of Moderna's motion to dismiss. On March 16, 2023, the court held a Rule 16 scheduling conference, and on March 21, 2023, the court issued a scheduling order in the matter without setting a trial date. On June 9, 2023, the court granted the parties' request to extend the time for claim construction briefing. The claim construction hearing was held on February 8, 2024. On April 3, 2024, the court issued its opinion regarding the claims construction. The court agreed with both of our positions regarding the Composition of Total Lipid ('069) Patent that: (i) the claimed molar percentage (mol. %) ranges can be met by any particle and is not limited to "finished" particles that are not subjected to further process steps; and (ii) that the claimed mol. % ranges include standard variation based on the number of significant figures recited in the claim. The court also agreed with our position regarding the Cationic Lipid with Protonatable Tertiary Amine ('378) Patent that there is no limitation as to the mol. % of the claimed cationic lipid. Regarding the Encapsulation of mRNA ('651) Patent, the court held that "wherein at least 70% / at least 80% / about 90% of the mRNA in the formulation is fully encapsulated in the lipid vesicles" means "wherein at least 70% / at least 80% / about 90% of the mRNA is fully, as distinct from partially, contained inside the lipid vesicles". On August 5, 2024, we and Genevant, along with Moderna, filed the Stipulation with the court requesting an amended case schedule to accommodate certain outstanding discovery from Moderna and third parties, as specified in the Stipulation, which would move the start of the trial from April 21, 2025 to September 24, 2025, subject to the court's availability. The Stipulation, and the new deadlines set forth therein, are subject to the approval of the court. A conference to discuss the Stipulation has been scheduled by the court for August 15, 2024.

Patent Infringement Litigation vs. Pfizer and BioNTech

On April 4, 2023, we and Genevant filed a lawsuit in the U.S. District Court for the District of New Jersey against Pfizer Inc. (Pfizer) and BioNTech SE (BioNTech) seeking damages for infringement of U.S. Patent Nos. 9,504,651; 8,492,359; 11,141,378; 11,298,320; and 11,318,098 in the manufacture and sale of any COVID-19 mRNA-LNP vaccines. The patents relate to nucleic acid-lipid particles and their composition, manufacture, delivery and methods of use. The lawsuit does not seek an injunction or otherwise seek to impede the sale, manufacture or distribution of any COVID-19 mRNA-LNP vaccines. However, we seek fair compensation for Pfizer's and BioNTech's use of our patented technology that was developed with great effort and at great expense, without which their COVID-19 mRNA-LNP vaccines would not have been successful. On July 10, 2023, Pfizer and BioNTech filed their answer to the complaint, affirmative defenses and counterclaims. We and Genevant filed our answer to these counterclaims on August 14, 2023. A scheduling conference was held on August 28, 2023 and the court issued a Letter Order on September 7, 2023 setting dates up to but not including the date for a claim construction hearing. Scheduling of the claim construction hearing and subsequent case dates, including the date for trial, will be set at a later time that is yet to be determined. Document and written discovery in the action is ongoing.

Acuitas Declaratory Judgment Lawsuit

On March 18, 2022, Acuitas filed a lawsuit against us and Genevant in the U.S. District Court for the Southern District of New York, asking the court to enter declaratory judgment that Arbutus patent Nos. 8,058,069, 8,492,359, 8,822,668, 9,006,417, 9,364,435, 9,404,127, 9,504,651, 9,518,272, and 11,141,378 do not infringe Pfizer and BioNTech's COVID-19 vaccine, COMIRNATY, which uses an mRNA lipid provided, under license, by Acuitas. Acuitas also seeks a declaration that each of the listed patents is invalid. On June 24, 2022, we and Genevant sought a pre-motion conference concerning our anticipated motion to dismiss all of Acuitas' claims due to lack of subject matter jurisdiction. The request for a pre-motion conference was granted, but the case was subsequently re-assigned to a new judge who entered an order directing: (i) Acuitas to inform the court whether it intended to file an amended complaint; (ii) that Acuitas must file any amended complaint by a certain date; and

(iii) that if Acuitas did not file an amended complaint, we and Genevant must file our motion to dismiss by a certain date. Acuitas filed its amended complaint on September 6, 2022. On October 4, 2022, we and Genevant filed our motion to dismiss the Acuitas action for lack of subject matter jurisdiction based on the lack of a case or controversy. Acuitas filed its opposition to the motion to dismiss on November 1, 2022, and we and Genevant filed our reply brief on November 16, 2022 at which point the motion was fully briefed. A status conference for the action was set for August 9, 2023, however on August 4, 2023, Acuitas voluntarily dismissed its complaint in the Southern District of New York and refiled a virtually identical complaint in the District Court of New Jersey (D. N.J.) where the Pfizer/BioNTech matter is currently pending, except that the 9,404,127 patent is not at issue in the New Jersey action, and Acuitas also added two additional patents to its New Jersey declaratory judgment action (U.S. Patent Nos. 11,298,320 and 11,318,098) that were not at issue in its New York action. On September 15, 2023, we and Genevant filed a letter with the court seeking a premotion conference for a motion to dismiss and subsequently filed our and Genevant's motion to dismiss on October 13, 2023. Acuitas filed its opposition on November 1, 2023 and we and Genevant filed our reply on November 16, 2023. Acuitas filed a request to commence discovery on November 18, 2023, to which we and Genevant responded on November 20, 2023. On May 20, 2024, the court granted our and Genevant's motion to dismiss, so we believe this matter is now concluded.

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 condensed 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, 2023.

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,	
	2024	2023	2024	2023
	(in thousands)			
Total revenue	$ 1,726	$ 4,651	$ 3,258	$ 11,338
Operating expenses	23,309	23,036	44,204	47,136
Loss from operations	(21,583)	(18,385)	(40,946)	(35,798)
Other income	1,787	1,291	3,275	2,365
Net loss	**$ (19,796)**	**$ (17,094)**	**$ (37,671)**	**$ (33,433)**

Revenue

Revenues are summarized in the following tables:

	Three Months Ended June 30,			
	2024	% of Total	2023	% of Total
	(in thousands, except percentages)			
Revenue from collaborations and licenses				
Royalties from sales of ONPATTRO	$ 642	37 %	$ 861	19 %
Qilu Pharmaceutical Co., Ltd.	513	30 %	3,024	65 %
Non-cash royalty revenue				
Royalties from sales of ONPATTRO	571	33 %	766	16 %
Total revenue	**$ 1,726**	**100 %**	**$ 4,651**	**100 %**

	Six Months Ended June 30,			
	2024	% of Total	2023	% of Total
	(in thousands, except percentages)			
Revenue from collaborations and licenses				
Royalties from sales of ONPATTRO	$ 1,337	41 %	$ 2,266	20 %
Qilu Pharmaceutical Co., Ltd.	757	23 %	7,128	63 %
Non-cash royalty revenue				
Royalties from sales of ONPATTRO	1,164	36 %	1,944	17 %
Total revenue	**$ 3,258**	**100 %**	**$ 11,338**	**100 %**

Total revenue decreased $2.9 million and $8.1 million for the three and six months ended June 30, 2024, respectively, compared to the same periods in 2023, due primarily to: i) a decrease in license revenue recognized related to our progress towards the satisfaction of our performance obligations with respect to the technology transfer and licensing agreement with Qilu; and ii) a decrease in license royalty revenue from Alnylam and Acuitas due to lower sales of ONPATTRO in 2024 compared to 2023.

Operating expenses

Operating expenses are summarized in the following tables:

	Three Months Ended June 30,			
	2024	% of Total	2023	% of Total
	(in thousands, except percentages)			
Research and development	$ 15,551	67 %	$ 17,692	77 %
General and administrative	7,547	32 %	5,980	26 %
Change in fair value of contingent consideration	211	1 %	(636)	(3) %
Total operating expenses	**$ 23,309**	**100 %**	**$ 23,036**	**100 %**

	Six Months Ended June 30,			
	2024	% of Total	2023	% of Total
	(in thousands, except percentages)			
Research and development	$ 30,954	70 %	$ 35,967	76 %
General and administrative	12,859	29 %	11,532	24 %
Change in fair value of contingent consideration	391	1 %	(363)	(1) %
Total operating expenses	**$ 44,204**	**100 %**	**$ 47,136**	**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 preclinical activities, as well as a portion of stock-based compensation and general overhead costs.

Research and development expenses decreased $2.1 million and $5.0 million for the three and six months ended June 30, 2024, respectively, compared to the same periods in 2023. The decreases were due primarily to the discontinuation of our coronavirus and AB-161 programs in September 2023 as part of our efforts to focus our pipeline on our lead HBV product candidates, partially offset by an increase in clinical expenses for our AB-101 Phase 1a/1b clinical trial and our multiple imdusiran Phase 2a clinical trials. In connection with our cessation of all discovery efforts in August 2024, we expect our research expenses to be reduced in future periods.

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 $1.6 million and $1.3 million for the three and six months ended June 30, 2024, respectively, as compared to the same periods in 2023, due primarily to higher litigation costs, partially offset by a decrease in compensation-related expenses.

Change in fair value of contingent consideration

Contingent consideration is a liability related to our acquisition of Enantigen Therapeutics, Inc. in October 2014. 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 cHBV. As imdusiran continues to progress through Phase 2a proof-of-concept clinical trials, we will adjust our assumptions regarding probability of success commensurate with the progression of the program, which will increase the fair value of the liability.

Other income (loss)

The components of our other income (loss) are summarized in the following table:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	2023	2024	2023
	(in thousands)			
Interest income	$ 1,829	$ 1,461	$ 3,374	$ 2,729
Interest expense	(34)	(171)	(78)	(369)
Foreign exchange (loss)/gain	(8)	1	(21)	5
Total other income	**$ 1,787**	**$ 1,291**	**$ 3,275**	**$ 2,365**

Interest income

The increase in interest income for the three and six months ended June 30, 2024 compared to the same periods in 2023 was due primarily to higher interest earned on our cash and investment balances due to a general increase in market interest rates.

Interest expense

Interest expense for the three and six months ended June 30, 2024 and 2023 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. The decrease is related to the declining balance of the unamortized discount and issuance costs.

LIQUIDITY AND CAPITAL RESOURCES

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

	Six Months Ended June 30,	
	2024	2023
	(in thousands)	
Net loss	$ (37,671)	$ (33,433)
Non-cash items	3,973	2,911
Change in deferred license revenue	(757)	(7,128)
Net change in operating items	656	(9,210)
Net cash used in operating activities	**(33,799)**	**(46,860)**
Net cash provided by investing activities	**21,523**	**18,119**
Issuance of common shares pursuant to the Open Market Sale Agreement	44,124	24,604
Cash provided by other financing activities	4,676	555
Net cash provided by financing activities	**48,800**	**25,159**
Effect of foreign exchange rate changes on cash and cash equivalents	(21)	3
Increase/(decrease) in cash and cash equivalents	**36,503**	**(3,579)**
Cash and cash equivalents, beginning of period	26,285	30,776
Cash and cash equivalents, end of period	**$ 62,788**	**$ 27,197**

Since our incorporation, we have financed our operations through 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, 2024, $33.8 million of cash was used in operating activities compared to $46.9 million used in operating activities for the six months ended June 30, 2023, a change of $13.1 million. The change was due primarily to a decrease in research and development expenses and the timing of payments to vendors.

For the six months ended June 30, 2024, net cash provided by investing activities was $21.5 million, resulting primarily from maturities of investments in marketable securities of $79.6 million, partially offset by additional investments in marketable securities of $58.0 million. For the six months ended June 30, 2023, net cash provided by investing activities was $18.1 million, which resulted primarily from maturities of investments in marketable securities of $68.5 million, partially offset by additional investments in marketable securities of $49.4 million.

For the six months ended June 30, 2024, net cash provided by financing activities was $48.8 million, which was primarily related to $44.1 million in proceeds from sales of common shares under the Sale Agreement. For the six months ended June 30, 2023, net cash provided by financing activities was $25.2 million, which included $24.6 million in proceeds from sales of common shares under the Sale Agreement.

Sources of Liquidity

As of June 30, 2024, we had cash, cash equivalents and investments in marketable securities of $148.5 million. We had no outstanding debt as of June 30, 2024.

Open Market Sale Agreement

We have an Open Market Sale Agreement[SM] with Jefferies dated December 20, 2018, as amended by Amendment No. 1, dated December 20, 2019, Amendment No. 2, dated August 7, 2020 and Amendment No. 3, dated March 4, 2021 (as amended, the Sale Agreement), under which we may offer and sell common shares, from time to time.

On December 23, 2019, we filed a shelf registration statement on Form S-3 with the SEC (File No. 333-235674) and accompanying base prospectus, declared effective by the SEC on January 10, 2020 (the January 2020 Registration Statement), for the offer and sale of up to $150 million of our securities. The January 2020 Registration Statement also contained a prospectus supplement for an offering of up to $50.0 million of our common shares pursuant to the Sale Agreement. This prospectus supplement was fully utilized during 2020. On August 7, 2020, we filed a prospectus supplement with the SEC (the August 2020 Prospectus Supplement) for an offering of up to an additional $75.0 million of our common shares pursuant to the Sale Agreement under the January 2020 Registration Statement. The August 2020 Prospectus Supplement was fully utilized during 2020. The January 2020 Registration Statement expired in January 2023.

On August 28, 2020, we filed a shelf registration statement on Form S-3 with the SEC (File No. 333-248467) and accompanying base prospectus, declared effective by the SEC on October 22, 2020 (the October 2020 Registration Statement), for the offer and sale of up to $200 million of our securities. On March 4, 2021, we filed a prospectus supplement with the SEC in connection with the offering of up to an additional $75.0 million of our common shares pursuant to the Sale Agreement under the October 2020 Registration Statement, which we fully utilized during 2021. On October 8, 2021, we filed a prospectus supplement with the SEC for the offer and sale of up to an additional $75.0 million of our common shares pursuant to the Sale Agreement under the October 2020 Registration Statement.

On November 4, 2021, we filed a shelf registration statement on Form S-3 with the SEC (File No. 333-260782) and accompanying base prospectus, declared effective by the SEC on November 18, 2021 (the November 2021 Registration Statement), for the offer and sale of up to $250 million of our securities.

On March 3, 2022, we filed a prospectus supplement with the SEC (the March 2022 Prospectus Supplement) for the offer and sale of up to an additional $100.0 million of our common shares pursuant to the Sale Agreement under: (i) the January 2020 Registration Statement; (ii) the October 2020 Registration Statement; and (iii) the November 2021 Registration Statement, of which only the November 2021 Registration Statement remains active.

In October 2023, the October 2020 Registration Statement expired with $29.3 million that was not utilized under the October 2021 Prospectus Supplement, leaving $75.0 million remaining available under the March 2022 Prospectus Supplement pursuant to the November 2021 Registration Statement.

During the six months ended June 30, 2024, we issued 16,499,999 common shares pursuant to the Sale Agreement resulting in net proceeds of approximately $44.1 million. For the six months ended June 30, 2023, we issued 9,214,168 common shares pursuant to the Sale Agreement, resulting in net proceeds of approximately $24.6 million. As of June 30, 2024, there was approximately $25.4 million available under the March 2022 Prospectus Supplement.

Royalty Entitlements

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 we are not obligated to reimburse OMERS if they fail to collect any such future royalties. From the inception of the royalty sale through June 30, 2024, we have recorded an aggregate of $23.8 million of non-cash royalty revenue for royalties earned by OMERS. 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.

In December 2021, we entered into a technology transfer and exclusive licensing agreement with Qilu pursuant to which we granted Qilu an exclusive (with certain exceptions), sublicensable, royalty-bearing license, under certain intellectual property owned by us, to develop, manufacture and commercialize imdusiran for the treatment or prevention of cHBV in the Territory. In partial consideration for the rights granted by us, Qilu paid us a one-time upfront cash payment of $40 million and made an equity investment in us of $15.0 million, both received in January 2022, and agreed to pay us milestone payments totaling up to $245 million, net of withholding taxes, upon the achievement of certain technology transfer, development, regulatory and commercialization milestones. Qilu also agreed to pay us double-digit royalties into the low twenties percent based upon annual net sales of imdusiran in the Territory.

Cash requirements

We believe that our $148.5 million of cash, cash equivalents and investments in marketable securities as of June 30, 2024 will be sufficient to fund our operations for at least the next twelve months and into the fourth quarter of 2026. We expect a net cash burn between $63 million and $67 million in 2024. 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:

- 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 potential requirement to make milestone payments related to our legacy agreements;
- 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 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 and government grants and contracts. There can be no assurance that funding will be available at all or on acceptable terms to permit further advancement of our development programs.

If adequate funding is not available, we may be required to delay, reduce or eliminate one or more of our 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

The information under this item is not required to be provided by smaller reporting companies.

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, 2024. The term "disclosure controls and procedures", as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (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, 2024, 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, 2024 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

Patent Infringement Litigation vs. Pfizer and BioNTech

On April 4, 2023, we and Genevant filed a lawsuit in the U.S. District Court for the District of New Jersey against Pfizer Inc. (Pfizer) and BioNTech SE (BioNTech) seeking damages for infringement of U.S. Patent Nos. 9,504,651; 8,492,359; 11,141,378; 11,298,320; and 11,318,098 in the manufacture and sale of any COVID-19 mRNA-LNP vaccines. The patents relate to nucleic acid-lipid particles and their composition, manufacture, delivery and methods of use. The lawsuit does not seek an injunction or otherwise seek to impede the sale, manufacture or distribution of any COVID-19 mRNA-LNP vaccines. However, we seek fair compensation for Pfizer's and BioNTech's use of our patented technology that was developed with great effort and at great expense, without which their COVID-19 mRNA-LNP vaccines would not have been successful. On July 10, 2023, Pfizer and BioNTech filed their answer to the complaint, affirmative defenses and counterclaims. We and Genevant filed our answer to these counterclaims on August 14, 2023. A scheduling conference was held on August 28, 2023 and the court issued a Letter Order on September 7, 2023 setting dates up to but not including the date for a claim construction hearing. Scheduling of the claim construction hearing and subsequent case dates, including the date for trial, will be set at a later time that is yet to be determined. Document and written discovery in the action is ongoing.

Patent Infringement Litigation vs. Moderna

On February 28, 2022, we and Genevant filed a lawsuit in the U.S. District Court for the District of Delaware against Moderna, Inc. and a Moderna affiliate (collectively, Moderna) seeking damages for infringement of U.S. Patent Nos. 8,058,069, 8,492,359, 8,822,668, 9,364,435, 9,504,651, and 11,141,378 in the manufacture and sale of MRNA-1273, Moderna's vaccine for COVID-19. The patents relate to nucleic acid-lipid particles and lipid vesicles, as well as compositions and methods for their use. The lawsuit does not seek an injunction or otherwise seek to impede the sale, manufacture or distribution of MRNA-1273. However, we seek fair compensation for Moderna's use of our patented technology that was developed with great effort and at great expense, without which Moderna's COVID-19 vaccine would not have been successful. On May 6, 2022, Moderna filed a partial motion to dismiss the claims "relating to Moderna's sale and provision of COVID-19 vaccine doses to the U.S. Government." On November 2, 2022, the court issued an Order denying Moderna's motion. On November 30, 2022, Moderna filed its Answer to the Complaint and Counterclaims. We and Genevant filed our Answer to Moderna's Counterclaims on December 21, 2022. On February 14, 2023, the U.S. Department of Justice filed a Statement of Interest in the action. On February 16, 2023, the court held an Initial Pretrial Conference after which it issued an Order, dated February 16, 2023, ordering that within 14 days of the issuance of the Order, the parties and the U.S. Government were to submit letters regarding the impact of the Governments' Statement of Interest on the scheduling of the matter. On March 10, 2023, the court reaffirmed its denial of Moderna's motion to dismiss. On March 16, 2023, the court held a Rule 16 scheduling conference, and on March 21, 2023, the court issued a scheduling order in the matter without setting a trial date. On June 9, 2023, the court granted the parties' request to extend the time for claim construction briefing. The claim construction hearing was held on February 8, 2024. On April 3, 2024, the court issued its opinion regarding the claims construction. The court agreed with both of our positions regarding the Composition of Total Lipid ('069) Patent that: (i) the claimed molar percentage (mol. %) ranges can be met by any particle and is not limited to "finished" particles that are not subjected to further process steps; and (ii) that the claimed mol. % ranges include standard variation based on the number of significant figures recited in the claim. The court also agreed with our position regarding the Cationic Lipid with Protonatable Tertiary Amine ('378) Patent that there is no limitation as to the mol. % of the claimed cationic lipid. Regarding the Encapsulation of mRNA ('651) Patent, the court held that "wherein at least 70% / at least 80% / about 90% of the mRNA in the formulation is fully encapsulated in the lipid vesicles" means "wherein at least 70% / at least 80% / about 90% of the mRNA is fully, as distinct from partially, contained inside the lipid vesicles". On August 5, 2024, we and Genevant, along with Moderna, filed a Stipulation to Extend Time (the Stipulation) with the court requesting an amended case schedule to accommodate certain outstanding discovery from Moderna and third parties, as specified in the Stipulation, which would move the start of the trial from April 21, 2025 to September 24, 2025, subject to the court's availability. The Stipulation, and the new deadlines set forth therein, are subject to the approval of the court. A conference to discuss the Stipulation has been scheduled by the court for August 15, 2024.

Acuitas Declaratory Judgment Lawsuit

On March 18, 2022, Acuitas Therapeutics Inc. (Acuitas) filed a lawsuit against us and Genevant in the U.S. District Court for the Southern District of New York, asking the court to enter declaratory judgment that Arbutus patent Nos. 8,058,069, 8,492,359, 8,822,668, 9,006,417, 9,364,435, 9,404,127, 9,504,651, 9,518,272, and 11,141,378 do not infringe Pfizer and BioNTech's COVID-19 vaccine, COMIRNATY, which uses an mRNA lipid provided, under license, by Acuitas. Acuitas also

seeks a declaration that each of the listed patents is invalid. On June 24, 2022, we and Genevant sought a pre-motion conference concerning our anticipated motion to dismiss all of Acuitas' claims due to lack of subject matter jurisdiction. The request for a pre-motion conference was granted, but the case was subsequently re-assigned to a new judge who entered an order directing: (i) Acuitas to inform the court whether it intended to file an amended complaint; (ii) that Acuitas must file any amended complaint by a certain date; and (iii) that if Acuitas did not file an amended complaint, we and Genevant must file our motion to dismiss by a certain date. Acuitas filed its amended complaint on September 6, 2022. On October 4, 2022, we and Genevant filed our motion to dismiss the Acuitas action for lack of subject matter jurisdiction based on the lack of a case or controversy. Acuitas filed its opposition to the motion to dismiss on November 1, 2022, and we and Genevant filed our reply brief on November 16, 2022 at which point the motion was fully briefed. A status conference for the action was set for August 9, 2023, however on August 4, 2023, Acuitas voluntarily dismissed its complaint in the Southern District of New York and refiled a virtually identical complaint in the District Court of New Jersey (D. N.J.) where the Pfizer/BioNTech matter is currently pending, except that the 9,404,127 patent is not at issue in the New Jersey action, and Acuitas also added two additional patents to its New Jersey declaratory judgment action (U.S. Patent Nos. 11,298,320 and 11,318,098) that were not at issue in its New York action. On September 15, 2023, we and Genevant filed a letter with the court seeking a premotion conference for a motion to dismiss and subsequently filed our and Genevant's motion to dismiss on October 13, 2023. Acuitas filed its opposition on November 1, 2023 and we and Genevant filed our reply on November 16, 2023. Acuitas filed a request to commence discovery on November 18, 2023, to which we and Genevant responded on November 20, 2023. On May 20, 2024, the court granted our and Genevant's motion to dismiss, so we believe this matter is now concluded.

Moderna Inter Partes Review Petition

On February 21, 2018, Moderna Therapeutics, Inc. (Moderna) filed a petition requesting the United States Patent and Trademark Office to institute an Inter Partes Review of Arbutus United States Patent 9,404,127 (the '127 Patent). In its petition, Moderna sought to invalidate all claims of the patent based on Moderna's allegation that the claims are anticipated and/or obvious. We filed a response to Moderna's petition 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 the '127 Patent. The '127 Patent represents only a fraction of our extensive LNP patent portfolio.

With respect to the '127 Patent, the PTAB held all claims as invalid on September 10, 2019, by reason of anticipatory prior art. However, this decision was vacated and sent back (remanded) to the PTAB for a rehearing, pending the U.S. Supreme Court's (Supreme Court) decision whether to grant certiorari in a different case, United States v. Athrex, Inc. (US v. Athrex), the holding of which could impact the findings in the '127 Patent matter. The Supreme Court granted certiorari in US v. Athrex on October 13, 2020 (i.e., agreed to review the decision appealed from a lower court). Until the Supreme Court rendered its opinion in US v. Athrex, the '127 Patent hearing remained in abeyance, with no decision reached as to the validity of its claims. The Supreme Court decided on the US v. Athrex case on June 21, 2021, following which the Federal Circuit reinstated the appeal sua sponte, requiring the parties to brief how the case should proceed in light of the Supreme Court's opinion or for the Appellant to waive the challenge. We elected to waive the challenge and proceed with the appeal at the Federal Circuit. The opening brief was filed on October 25, 2021. Moderna's responsive brief was filed on February 24, 2022 and our reply brief was filed on April 26, 2022. An oral hearing for this matter was held on November 4, 2022. On April 11, 2023, the Federal Circuit rendered its opinion, affirming the PTAB's finding that all claims of the '127 Patent are invalid by reason of anticipation.

Moderna and Merck European Opposition

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. Both Merck and Moderna perfected their appeals by filing Grounds of Appeal on April 30, 2020. We filed our responses to the appeals on September 18, 2020. On March 22, 2022, Moderna filed further written submissions to which we and Genevant responded in August 2022. On April 18, 2023, we and Genevant withdrew our auxiliary request, however, the original (main) request remains in the action. We and Moderna informed the Board of Appeals that we would not object to a remittance of the matter without a hearing to the Opposition Division of the EPO. The hearing in this matter before the Board of Appeals was subsequently cancelled and resubmitted to the Opposition Division (i.e., lower board) of the EPO. On October 31, 2023, the Opposition Division issued a summons for oral proceedings and provided its preliminary and non-binding opinion on the subject matter to be discussed at the hearing. On

November 3, 2023, we responded to the summons and on January 15, 2024, Moderna and Merck filed their reply to the written opinion of the Opposition Division, as well as to our written submission of November 3, 2023. We responded to Moderna and Merck's reply on April 5, 2024. Oral proceedings were held on June 6, 2024, and the Opposition Division upheld the '254 Patent but declined our and Genevant's request to broaden certain claims in the '254 Patent. We have not received any indication from Moderna and Merck if they plan to appeal the decision, and Genevant and we are currently evaluating whether to appeal the Opposition Division's decision not to allow Genevant and us to broaden our claims under the '254 Patent.

While we are the patent holder, the '127 Patent, the '254 Patent, the other patents in our LNP portfolio have been licensed to Genevant and are included in the rights licensed by us to Genevant under the Genevant License.

Other Matters

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

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, 2023.

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

On July 29, 2024, our Board of Directors took action, effective August 1, 2024, to streamline the organization to focus our efforts on advancing the clinical development of imdusiran and AB-101, and therefore ceased all discovery efforts and discontinued our IM-PROVE III clinical trial. In taking these steps to streamline the organization, we are implementing a 40% reduction in our workforce, primarily affecting the discovery and general and administrative functions. As a result, we will incur a one-time restructuring charge in the third quarter of 2024 of approximately $3.0 million to $4.0 million, which includes approximately $2.9 million of cash severance and continued benefits payments, a non-cash impairment charge for laboratory equipment of approximately $0.5 million and approximately $0.2 million to $0.4 million of cash payments to vendors for close-out activities in connection with the cessation of discovery efforts and the discontinuation of our IM-PROVE III clinical trial. With these organizational changes and our ongoing cost management efforts, we now expect our current cash, cash equivalents and investments in marketable securities will be sufficient to fund our operations into the fourth quarter of 2026.

Trading Plans

During the quarter ended June 30, 2024, none of our directors or officers adopted, modified or terminated a "Rule 10b5-1 trading arrangement" or a "non-Rule 10b5-1 trading arrangement" as such terms are defined under Item 408 of Regulation S-K.

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).
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 May 28, 2024).
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, 2024, 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 8, 2024.

ARBUTUS BIOPHARMA CORPORATION

By: /s/ Michael J. McElhaugh
Michael J. McElhaugh
Interim President and Chief Executive Officer
(Principal Executive Officer)

By: /s/ David C. Hastings
David C. Hastings
Chief Financial Officer
(Principal Financial Officer and Principal Accounting 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, Michael J. McElhaugh, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Arbutus Biopharma Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 8, 2024

/s/ Michael J. McElhaugh
Name: Michael J. McElhaugh
Title: Interim 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 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 8, 2024

/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, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael J. McElhaugh, Interim 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 8, 2024

/s/ Michael J. McElhaugh
Name: Michael J. McElhaugh
Title: Interim 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, 2024, 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 8, 2024

/s/ David Hastings

Name: David Hastings

Title: Chief Financial Officer