Consolidated Financial Statements

APTOSE BIOSCIENCES INC.

Years ended December 31, 2020 and 2019

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Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Aptose Biosciences Inc.

Opinion on the Consolidated *Financial Statements*

We have audited the accompanying consolidated statements of financial position of Aptose Biosciences Inc. and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of loss and comprehensive loss, changes in shareholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of Research and Development Prepaid and Accrued Costs

As discussed in Notes 2(i), 4 and 9 to the consolidated financial statements, the Company records expenses for research and development activities based on Management's estimates of services received and efforts expended pursuant to contracts with vendors that conduct research and development on the Company's behalf. The financial terms vary from contract to contract and may result in uneven payment flows as compared with services performed or products delivered. As a result, the Company is required to estimate research and development expenses incurred during the period, which impacts the amount of accrued expenses and prepaid balances related to such costs as of each balance sheet date. Management estimates the amount of work completed through discussions with internal personnel and external service providers as to the progress or stage of completion of the services. Management makes significant judgments and estimates in determining the accrued balance at the end of each reporting period.

We identified the evaluation of research and development prepaid and accrued costs as a critical audit matter. The Company's estimates are based on a number of factors, including the Company's knowledge of the status of each of the research and development project milestones, and contract terms together with related executed change orders. Higher degree of auditor judgment was required in evaluating the results of our audit procedures regarding the Company's estimates, because of the subjectivity and estimation uncertainty in the significant assumptions used in the calculation.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design of certain internal controls related to the critical audit matter. This included controls over the development of the estimated amount of prepaid and accrued costs incurred by the contract research organizations and contract manufacturing organizations during the period. For a selection of research and development projects, we assessed the Company's estimates of a selection of the research and development activities completed to date by:

- inquiring with Company personnel responsible for overseeing the research and development activities to understand progress of the activities;
- inspecting the terms of the contracts between the Company and the respective contract research and contract manufacturing organizations, the correspondence between the Company and these organizations as to the completion status, arriving at an estimate of the prepaid or accrual amounts based thereon and comparing it to the amounts recorded by the Company; and
- performing a lookback analysis by comparing the estimated accrual balances at prior annual reporting date to the actual amounts that were ultimately invoiced.

We have served as the Company's auditor since 2003.

KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants

Vaughan, Canada
March 23, 2021

APTOSE BIOSCIENCES INC.
Consolidated Statements of Financial Position
(Expressed in thousands of US dollars)

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 117,393	$ 79,842
Investments	5,000	17,758
Prepaid expenses	2,554	1,025
Other current assets	129	141
Total current assets	125,076	98,766
Non-current assets:		
Property and equipment	261	334
Right-of-use assets, operating leases	925	1,376
Total non-current assets	1,186	1,710
Total assets	$ 126,262	$ 100,476
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 2,171	$ 1,960
Accrued liabilities	4,102	3,058
Current portion of lease liability, operating leases	539	521
Total current liabilities	6,812	5,539
Non-current liabilities:		
Lease liability, operating leases	535	1,011
Total liabilities	7,347	6,550
Shareholders' equity:		
Share capital:		
Common shares, no par value, unlimited authorized shares, 88,881,737 and 76,108,031 shares issued and outstanding at December 31, 2020 and December 31, 2019	429,523	365,490
Additional paid-in capital	50,861	34,649
Accumulated other comprehensive loss	(4,316)	(4,298)
Deficit	(357,153)	(301,915)
Total shareholders' equity	118,915	93,926
Total liabilities and shareholders' equity	$ 126,262	$ 100,476

See accompanying notes to consolidated financial statements
Subsequent events (note 17)

APTOSE BIOSCIENCES INC.
Consolidated Statements of Loss and Comprehensive Loss
(Expressed in thousands of US dollars, except for per common share data)

	Year ended December 31, 2020	Year ended December 31, 2019
Revenue	$ -	$ -
Expenses:		
Research and development	29,288	16,835
General and administrative	26,480	10,022
Operating expenses	55,768	26,857
Other income :		
Interest income	522	574
Foreign exchange gain	8	6
Total other income	530	580
Net loss	(55,238)	(26,277)
Other comprehensive loss:		
Unrealized gain/(loss) on securities available-for-sale	(18)	18
Total comprehensive loss	$ (55,256)	$ (26,259)
Basic and diluted loss per common share	$ (0.67)	$ (0.52)
Weighted average number of common shares outstanding used in the calculation of (in thousands)		
Basic and diluted loss per common share	81,837	50,160

See accompanying notes to consolidated financial statements.

APTOSE BIOSCIENCES INC.
Consolidated Statements of Changes in Shareholders' Equity
(Expressed in thousands of US dollars)

	Common Shares										
	Shares (thousands)		Amount		Additional paid-in capital		Accumulated other comprehensive loss		Deficit		Total
Balance, December 31, 2019	76,108	$	365,490	$	34,649	$	(4,298)	$	(301,915)	$	93,926
Common shares issued pursuant to public offering	11,854		58,234		-		-		-		58,234
Common shares issued on redemption of restricted share units	685		4,801		(4,801)		-		-		-
Common shares issued upon exercise of stock options	235		998		(425)		-		-		573
Stock-based compensation	-		-		21,438		-		-		21,438
Other comprehensive gain	-		-		-		(18)		-		(18)
Net loss	-		-		-		-		(55,238)		(55,238)
Balance, December 30, 2020	88,882	$	429,523	$	50,861	$	(4,316)	$	(357,153)	$	118,915
Balance, December 31, 2018	38,162	$	261,072	$	32,963	$	(4,316)	$	(275,638)	$	14,081
Common shares issued pursuant to the December 2019 public offering	18,544		68,588		-		-		-		68,588
Common shares issued pursuant to the June 2019 public offering	11,500		19,594		-		-		-		19,594
Common shares issued pursuant to 2019 share purchase agreement	1,971		4,730		-		-		-		4,730
Common shares issued under the 2018 ATM	77		178		-		-		-		178
Common shares issued pursuant to 2018 share purchase agreement	5,502		10,000		-		-		-		10,000
Common shares issued upon exercise of stock options	312		1,248		(530)		-		-		718
Common shares issued on redemption of restricted share units	40		80		(80)		-		-		-
Stock-based compensation	-		-		2,296		-		-		2,296
Other comprehensive gain	-		-		-		18		-		18
Net loss	-		-		-		-		(26,277)		(26,277)
Balance, December 30, 2019	76,108	$	365,490	$	34,649	$	(4,298)	$	(301,915)	$	93,926

See accompanying notes to consolidated financial statements.

APTOSE BIOSCIENCES INC.
Consolidated Statements of Cash Flows
(Expressed in thousands of US dollars)

	Year ended December 31, 2020	Year ended December 31, 2019
Cash flows from operating activities:		
Net loss for the year	$ (55,238)	$ (26,277)
Items not involving cash:		
Stock-based compensation	21,438	2,296
Shares issued to Aspire Capital as commitment fees	-	360
Depreciation and amortization	152	152
Amortization of right-of-use assets	462	461
Interest on lease liabilities	69	90
Unrealized foreign exchange gain/(loss)	(8)	(23)
Accrued interest on investments	33	(34)
Change in operating working capital:		
Prepaid expenses	(1,529)	(379)
Operating lease payments	(537)	(471)
Other assets	12	(40)
Accounts payable	211	645
Accrued liabilities	1,044	1,662
Cash used in operating activities	(33,891)	(21,558)
Cash flows from financing activities:		
Issuance of common shares pursuant to July/August 2020 Public Offering, net of broker commission and agent legal fees	58,402	-
Issuance of common shares pursuant to December 2019 Public Offering, net of broker commission and agent legal fees	-	68,883
Issuance of common shares pursuant to June 2019 Public Offering, net of broker commission and agent legal fees	-	19,736
Issuance of common shares under the 2018 ATM, net of broker commission	-	178
Issuance of common shares under 2019 share purchase agreement	-	4,370
Issuance of common shares under 2018 share purchase agreement	-	10,000
Offering costs paid	(168)	(437)
Issuance of common shares pursuant to exercise of stock options	573	718
Cash provided by financing activities	58,807	103,448
Cash flows from (used in) investing activities:		
Maturity (acquisition) of investments, net	12,707	(17,268)
Purchase of property and equipment	(79)	(102)
Cash provided by (used in) investing activities	12,628	(17,370)
Effect of exchange rate fluctuations on cash and cash equivalents held	7	23
Increase in cash and cash equivalents	37,551	64,543
Cash and cash equivalents, beginning of year	79,842	15,299
Cash and cash equivalents, end of year	$ 117,393	$ 79,842

See accompanying notes to consolidated financial statements.

1. Reporting entity:

Aptose Biosciences Inc. ("Aptose" or the "Company") is a clinical-stage biotechnology company committed to discovering and developing personalized therapies addressing unmet medical needs in oncology. The Company's executive offices are located in San Diego, California and its head office is located in Toronto, Canada.

Aptose has two clinical-stage programs and a second program that is discovery-stage and partnered with another company. CG026806 ("CG-806"), Aptose's pan-FMS-like tyrosine kinase 3 / pan-Bruton's tyrosine kinase inhibitor, is currently enrolling patients in a Phase 1, multicenter, open label, dose-escalation study with expansions to assess the safety, tolerability, PK, and preliminary efficacy of CG-806 in patients with chronic lymphocytic leukemia (CLL/SLL) or non-Hodgkin lymphomas (NHL). Aptose was granted IND allowance from the U.S Food and Drug Administration (FDA) to initiate a separate Phase 1 trial in patients with relapse or refractory acute myeloid leukemia (AML) in June 2020, and this trial is also enrolling patients. APTO-253, Aptose's second program, is a small molecule MYC inhibitor and is currently enrolling patients in a Phase 1b clinical trial for the treatment of patients with R/R blood cancers, including AML and high-risk Myelodysplastic Syndrome.

We are advancing first-in-class targeted agents to treat life-threatening cancers that, in most cases, are not elective for patients and require immediate treatment. However, COVID-19 has caused global economic and social disruptions that could adversely affect our ongoing and planned research and development of our clinical-stage programs including but not limited to drug manufacturing campaigns, clinical trial activities including enrollment of patients in our ongoing and planned clinical trials, collection and analysis of patient data and eventually, the reporting of results from our trials.

Since our inception, we have financed our operations and technology acquisitions primarily from equity financing, proceeds from the exercise of warrants and stock options, and interest income on funds held for future investment. Our uses of cash for operating activities have primarily consisted of salaries and wages for our employees, facility and facility-related costs for our offices and laboratories, fees paid in connection with preclinical and clinical studies, drug manufacturing costs, laboratory supplies and materials, and professional fees.

We do not expect to generate positive cash flow from operations for the foreseeable future due to the early stage of our clinical trials. It is expected that negative cash flow will continue until such time, if ever, that we receive regulatory approval to commercialize any of our products under development and/or royalty or milestone revenue from any such products exceeds expenses.

We believe that our cash, cash equivalents and investments on hand at December 31, 2020 will be sufficient to finance our operations for at least 12 months from the issuance date of these financial statements. Our cash needs for the next twelve months include estimates of the number of patients and rate of enrollment of our clinical trials, the amount of drug product that we will require to support our clinical trials, and our general corporate overhead costs to support our operations, and our reliance on our manufacturers. We have based these estimates on assumptions and plans which may change and which could impact the magnitude and/or timing of operating expenses and our cash runway.

Our ability to raise additional funds could be affected by adverse market conditions, the status of our product pipeline, possible delays in enrollment in our trial related to COVID-19, and various other factors and we may be unable to raise capital when needed, or on terms favorable to us. If necessary funds are not available, we may have to delay, reduce the scope of, or eliminate some of our development programs, potentially delaying the time to market for any of our product candidates.

2. Significant accounting policies

(a) Basis of consolidation:

These consolidated financial statements include the accounts of its subsidiaries. All intercompany transactions, balances, revenue and expenses are eliminated on consolidation.

(b) Basis of presentation:

These consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States, or GAAP and the rules and regulations of the Securities and Exchange Commission, or SEC, related to annual reports filed on Form 10-K. The functional and presentation currency of the Company is the US dollar.

(c) Significant accounting policies, estimates and judgments:

The preparation of the consolidated financial statements requires management to make judgments, estimates and assumptions that affect the application of accounting policies and reported amounts of assets and liabilities at the date of the consolidated financial statements and reported amounts of revenue and expenses during the reporting period. Actual outcomes could differ from those estimates. The consolidated financial statements include estimates, which, by their nature, are uncertain.

The impacts of such estimates are pervasive throughout the consolidated financial statements and may require accounting adjustments based on future occurrences.

The estimates and underlying assumptions are reviewed on a regular basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised and in any future periods affected.

(d) Leases

Effective January 1, 2019, the Company adopted Financial Accounting Standards Board, or FASB, standard ASU No. 2016-02, "Leases (Topic 842)". The Company's operating leases of tangible property with terms greater than twelve months are recognized as right of use assets, which represents the lessee's right to use, or control the use of, a specified asset for the lease term, and a corresponding lease liability, which represents the lessee's obligation to make lease payments under a lease, measured on a discounted basis. The Company adopted the new standard using the alternative transition method, which permits a company to use its effective date as the date of initial application without restating comparative period financial statements. Landlord inducements in the form of free rent periods are netted against lease payments to the landlord in measuring right-of-use assets and lease liabilities.

Impact of adoption:

As a result of adopting Topic 842, we recorded as of January 1, 2019, a right of use asset of approximately $1.570 million, and a lease liability of approximately $1.647 million. Upon adoption, landlord inducements of approximately $78 thousand were de-recognized, and a corresponding adjustment was made to right-of-use assets.

(e) Cash and cash equivalents:

Cash and cash equivalents are short-term highly liquid investments with original maturities of 90 days or less as at the date of purchase. Cash equivalents are accounted for on amortized cost basis, which approximates its fair value due to their short-term maturities.

(f) Investments:

Investments consist of time deposits with original maturities greater than 90 days are classified by management as securities available-for-sale. These available-for-sale securities are recorded at estimated fair values. Unrealized gains and losses on these investments are recorded in accumulated other comprehensive income (AOCI) in shareholder's equity. Realized gains and losses and declines in value that are judged to be other than temporary are included in interest income.

(g) Concentration of risk:

The Company is subject to credit risk from the Company's cash and cash equivalents and investments. The carrying amount of the financial assets represents the maximum credit exposure. The Company manages credit risk associated with its cash and cash equivalents and investments by maintaining minimum standards of R1-low or A-low investments and the Company invests only in highly rated Canadian corporations and treasury bills, which are capable of prompt liquidation.

(h) Property and equipment:

Property and equipment is measured at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditures that are directly attributable to the acquisition of the asset. The Company records depreciation at rates that charge operations with the cost of the assets over their estimated useful lives on a straight-line basis as follows:

Office furniture (years)	5
Laboratory equipment (years)	5
Computer hardware (years)	3
Computer software (years)	3
Leasehold improvements	Life of lease

The residual value, useful life and methods of depreciation of the assets are reviewed at each reporting period and adjusted prospectively if appropriate.

(i) Research and development:

Research and development (R&D) costs are expensed as incurred. R&D costs consist primarily of salaries and benefits, stock-based compensation, manufacturing, contract services, clinical trials and research related overhead. Non-refundable advance payments for goods and services that will be used in future research are recorded in prepaid and other assets and are expensed when the services are performed.

The Company records expenses for research and development activities based on Management's estimates of services received and efforts expended pursuant to contracts with vendors that conduct research and development on Aptose's behalf. The financial terms vary from contract to contract and may result in uneven payment flows as compared with services performed or products delivered. As a result, the Company is required to estimate research and development expenses incurred during the period, which impacts the amount of accrued expenses and prepaid balances related to such costs as of each balance sheet date. Management estimates the amount of work completed through discussions with internal personnel and external service providers as to the progress or stage of completion of the services. Management makes significant judgments and estimates in determining the accrued balance in each reporting period. As actual costs become known, the Company adjusts the accrued estimates.

(j) Fair value:

The Company measures its financial assets and liabilities at fair value. The carrying amounts for the Company's financial instruments, including cash and cash equivalents, accounts payable and accrued liabilities approximate their fair value due to their short maturities. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

(k) Stock-based compensation:

The Company has a stock-based compensation plan (the "Plan") available to officers, directors, employees and consultants with grants under the Plan approved by the Company's Board of Directors. Under the Plan, the exercise price of each option equals the closing trading price of the Company's stock on the day prior to the grant if the grant is made during the trading day or the closing trading price on the day of grant if the grant is issued after markets have closed. Vesting is provided for at the discretion of the Board of Directors and the expiration of options is to be no greater than 10 years from the date of grant.

The Company uses the fair value based method of accounting for employee awards granted under the Plan. The Company calculates the fair value of each stock option grant using the Black-Scholes option pricing model at the grant date. The stock-based compensation cost of the options is recognized as stock-based compensation expense over the relevant vesting period of the stock options using an estimate of the number of options that will eventually vest.

Stock options awarded to non-employees are measured at grant-date fair value of the equity instruments issued in accordance with FASB issued accounting standards update No 2018-07, Topic 718.

(Tabular amounts in thousands of US dollars, unless otherwise noted)

The Company has a stock incentive plan pursuant to which the Board may grant equity settled stock-based awards comprised of restricted stock units or dividend equivalents to employees, officers, consultants, independent contractors, advisors and non-employee directors of the Company. Compensation cost for restricted share units is measured at fair value at the date of grant, which is the market price of the underlying security, and is expensed over the award's vesting period on a straight-line basis using an estimate of the number of awards that will eventually vest.

(l) Segment reporting:

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker, or CODM. The Company's Chief Executive Officer serves as its CODM. The Company views its operations and manages its business as one segment, which is the discovery and development of personalized therapies addressing unmet medical needs in oncology. The Company operates primarily in the US.

(m) Loss per share:

Basic loss per share is computed by dividing the net loss available to common shareholders by the weighted average number of shares outstanding during the year. Diluted loss per share is computed similarly to basic loss per share except that the weighted average share outstanding is increased to include additional shares for the assumed exercise of stock options and warrants, if dilutive. The number of additional shares is calculated by assuming that outstanding stock options and warrants were exercised and that the proceeds from such exercises were used to acquire common stock at the average market price during the year. The inclusion of the Company's stock options and warrants in the computation of diluted loss per share has an anti-dilutive effect on the loss per share and, therefore, they have been excluded from the calculation of diluted loss per share.

(n) Income taxes:

The Company accounts for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted rates in effect for the year in which these temporary differences are expected to be recovered or settled. Valuation allowances are provided if, based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions and other issues. Reserves are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filing is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. Potential interest and penalties associated with such uncertain tax positions are recorded as components of income tax expense. As at December 31, 2020 and December 31, 2019, the Company has not recorded any reserves for potential payments as the Company has a history of losses and does not have any revenue from operations.

3. Cash and cash equivalents:

Cash and cash equivalents consist of cash of $329 thousand (December 31, 2019 - $1.640 million) and deposits in high interest savings accounts, money market funds and accounts and other term deposits with original maturities of less than 90 days totaling $117.064 million (December 31, 2019 - $78.202 million).

4. Prepaid expenses:

	December 31, 2020	December 31, 2019
Prepaid research and development expenses	$ 622	$ 451
Other prepaid expenses	1,932	574
	$ 2,554	$ 1,025

(Tabular amounts in thousands of US dollars, unless otherwise noted)

5. Property and equipment:

December 31, 2020	Cost	Accumulated depreciation	Net book value
Laboratory equipment	$ 185	$ 177	$ 8
Computer hardware	170	99	71
Computer software	222	174	48
Office furniture	140	72	68
Leasehold improvements	184	118	66
	$ 901	$ 640	$ 261

December 31, 2019	Cost	Accumulated depreciation	Net book value
Laboratory equipment	$ 185	$ 160	$ 25
Computer hardware	122	60	62
Computer software	222	128	94
Office furniture	116	51	65
Leasehold improvements	177	89	88
	$ 822	$ 488	$ 334

6. Right of-use assets, operating leases:

	Year ended December 31, 2020	Year ended December 31, 2019
Right-of-use assets, beginning of year	$ 1,837	$ 1,570
Additions to right-of-use assets	11	267
Right-of-use assets, end of year	1,848	1,837
Accumulated amortization	(923)	(461)
Right-of use assets, NBV	925	1,376

7. Investments:

Investments consisted of the following as of December 31, 2020 and December 31, 2019:

	December 31, 2020		
	Cost	Unrealized gain/(loss)	Market value
United States Treasury Bills	5,000	-	5,000
	5,000	-	5,000

(Tabular amounts in thousands of US dollars, unless otherwise noted)

	December 31, 2019		
	Cost	Unrealized gain	Market value
Guaranteed investment certificates, issued by a Canadian financial institution	12,008	18	12,026
Commercial notes	3,736	-	3,736
Canadian provincial promissory note	1,996	-	1,996
	17,740	18	17,758

8. **Fair value measurements and financial instruments:**

The fair value hierarchy establishes three levels to classify the inputs to valuation techniques used to measure fair value.

Level 1 - inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 - inputs are quoted prices in markets that are not active, quoted prices for similar assets or liabilities in active markets, inputs other than quoted prices that are observable for the asset or liability, or inputs that are derived principally from or corroborated by observable market data or other means; and

Level 3 - inputs are unobservable (supported by little or no market activity).

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs.

The following table presents the Company's assets that are measured at fair value on a recurring basis for the periods presented:

	December 31, 2020	Level 1	Level 2	Level 3
Assets				
Money Market accounts	$ 668	-	$ 668	-
Money Market Funds	44,000	-	44,000	-
High interest savings accounts	48,397	$ -	48,397	-
United States Treasury Bill	5,000	-	5,000	-
Government of Canada Treasury Bill	23,999	-	23,999	-
	$ 122,064	$ -	$ 122,064	$ -

	December 31, 2019	Level 1	Level 2	Level 3
Assets				
High interest savings account	$ 2,989	$ -	$ 2,989	-
Commercial notes	6,235	-	6,235	-
Canadian provincial promissory notes	5,493	-	5,493	-
Guaranteed investment certificates, issued by a Canadian financial institution	81,243	-	81,243	-
	$ 95,960	$ -	$ 95,960	$ -

(Tabular amounts in thousands of US dollars, unless otherwise noted)

9. Accrued liabilities:

Accrued liabilities as of December 31, 2020 and December 31, 2019 consisted of the following:

		December 31, 2020		December 31, 2019
Accrued personnel related costs	$	1,917	$	1,739
Accrued research and development expenses		1,932		1,062
Other accrued expenses		253		257
	$	4,102	$	3,058

10. Lease liability

Aptose leases office space and lab space in San Diego, California. The lease for the office space expires on March 31, 2023 and can be extended for an additional 5 year period. The lease for our lab space expires on February 28, 2022. We lease office space in Toronto, Ontario, Canada and the lease for this location expires on June 30, 2023 with an option to renew for another 5-year period. The Company has not included any extension periods in calculating its right-to-use assets and lease liabilities. The Company also enters into leases for small office equipment.

Minimum payments, undiscounted, under our operating leases are as follows:

Years ending December 31,		
2021	$	552
2022		464
2023		119
Thereafter		-
	$	1,135

To calculate the lease liability, the lease payments in the table above were discounted over the remaining term of the leases using the Company's incremental borrowing rate as at January 1, 2019 for existing leases at the time of adopting the Topic 842, and for new leases after the date adoption, as at the date of the execution date of the new lease. The following table presents the weighted average remaining term of the leases and the weighted average discount rate:

	Year ended December 31, 2020	Year ended December 31, 2019
Weighted-average remaining term – operating leases (years)	2.1	3.3
Weighted-average discount rate – operating leases	5.40%	5.43%
Lease liability, current portion	539	521
Lease liability, long term portion	535	1,011
Lease liability, total	1,074	1,532

Right-of-use assets obtained in exchange for new operating lease liabilities are as follows:

		Year ended December 31, 2020		Year ended December 31, 2019
Right-of-use assets recorded upon adoption of Topic 842, beginning of period		-	$	1,570
Right-of-use assets obtained in exchange for new operating lease liabilities in the period	$	11	$	267

(Tabular amounts in thousands of US dollars, unless otherwise noted)

Operating lease costs and operating cash flows from our operating leases are as follows:

	Year ended December 31, 2020	Year ended December 31, 2019
Operating lease cost	$ 530	$ 551
Operating cash flows from operating leases	$ 537	$ 471

11. Share capital:

The Company has authorized share capital of an unlimited number of common voting shares.

(a) Equity issuances:

(i) July/August 2020 Confidentially Marketed Public Offering (CMPO)

On July 20, 2020 and August 10, 2020, the Company completed a confidentially marketed public offering through the issuance of 11,854,472 common shares at a price of $5.25 per share for gross proceeds of $62.236 million (approximately $58.234 million net of share issue costs). Costs associated with the proceeds consisted of a 6% cash commissions and share issue costs, which consisted of agent commission, legal and professional fees and listing fees.

(ii) December 2019 Confidentially Marketed Public Offering (CMPO)

On December 19, 2019, the Company completed a confidentially marketed public offering through the issuance of 18,543,750 common shares at a price of $4.00 per share for gross proceeds of $74.175 million (approximately $68.588 million net of share issue costs). Costs associated with the proceeds consisted of a 7% cash commissions and share issue costs, which consisted of agent commission, legal and professional fees and listing fees.

(iii) June 2019 Confidentially Marketed Public Offering (CMPO)

On June 3, 2019, the Company completed a confidentially marketed public offering through the issuance of 11,500,000 common shares at a price of $1.85 per share for gross proceeds of $21.275 (approximately $19.594 million net of share issue costs). Costs associated with the proceeds consisted of a 7% cash commissions and share issue costs, which consisted of agent commission, legal and professional fees and listing fees.

(iv) 2019 Share Purchase agreement

On May 7, 2019, the Company entered into the 2019 Aspire Purchase Agreement, which provided that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital was committed to purchase up to an aggregate of $20 million of Common Shares over approximately 30 months. Pursuant to the terms of this agreement, on May 13, 2019, the Company issued 171,428 Common Shares ("Commitment Shares") to Aspire Capital in consideration for entering into the 2019 Aspire Purchase Agreement for a total cost of $360 thousand. During the period from May 7, 2019 up to December 16, 2019, the date the 2019 Aspire Purchase Agreement was terminated, the Company issued 1,800,000 common shares under the agreement at an average price of $2.43 per share for gross and net proceeds of $4.37 million.

(v) 2018 Share Purchase agreement

On May 30, 2018, the Company entered into the 2018 Aspire Purchase Agreement, which provided that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital was committed to purchase up to an aggregate of $20 million of Common Shares over approximately 30 months. Pursuant to the terms of this agreement, on June 8, 2018, the Company issued 170,261 Common Shares ("Commitment Shares") to Aspire Capital in consideration for entering into the 2018 Aspire Purchase Agreement for a total cost of $600 thousand. During the period from January 1, 2019 up to May 24, 2019, the date the 2018 Aspire Purchase Agreement was terminated, the Company issued 5,502,433 common shares under the agreement at an average price of $1.82 per share for gross and net proceeds of $10 million. On a cumulative basis up to May 24, 2019, the Company raised a total of approximately $11.9 million gross and net proceeds under the 2018 Aspire Purchase Agreement. As of May 24, 2019, the Company has issued 6,409,980, the maximum number of shares issuable under this facility without shareholder approval.

(vi) 2020 At-The-Market ("ATM") Facility

On May 5, 2020, the Company entered into an equity distribution agreement with Piper Sandler and Canaccord Genuity acting as co-agents in connection with the 2020 ATM Facility. Under the terms of the 2020 ATM Facility, the Company may, from time to time, sell Common Shares having an aggregate offering value of up to $75 million through Piper Sandler and Canaccord Genuity on the Nasdaq Capital Market. During the year ended December 31, 2020, the Company did not issue any shares under the 2020 ATM Facility.

(vii) 2019 At-The-Market ("ATM") Facility

On May 24, 2019, the Company entered into an "At-The-Market" Facility ("ATM") equity distribution agreement with Piper Jaffray and Canaccord Genuity acting as co-agents. Under the terms of this facility, the Company may, from time to time, sell shares of our common stock having an aggregate offering value of up to $40 million through Piper Jaffray and Canaccord Genuity on the Nasdaq Capital Market. During the period from May 24, 2019 to December 16, 2019, the date the "ATM" Facility was terminated, the Company did not issue any shares under this ATM equity.

(viii) 2018 At-The-Market ("ATM") Facility

On March 27, 2018, the Company entered into an "At-The-Market" Facility ("ATM") equity distribution agreement with Cantor Fitzgerald acting as sole agent. Under the terms of this facility, the Company may, from time to time, sell shares of our common stock having an aggregate offering value of up to $30 million through Cantor Fitzgerald on the Nasdaq Capital Market. During the period from January 1, 2019 to May 24, 2019, the date the Agreement was terminated, the Company issued 77,349 shares under this ATM equity facility at an average price of $2.37 for gross proceeds of $183 thousand ($178 thousand net of share issue costs). Costs associated with the proceeds consisted of a 3% cash commission. As of May 24, 2019, the Company has raised a total of $11.2 million gross proceeds ($10.9 million net of share issue costs) under the ATM Facility.

(b) Loss per share:

Loss per common share is calculated using the weighted average number of common shares outstanding and is presented in the table below:

(in thousands)	Year ended December 31, 2020	Year ended December 31, 2019
Net loss	$ (55,238)	$ (26,277)
Weighted-average common shares – basic and diluted	81,837	50,160
Net loss per share – basic and diluted	$ (0.67)	$ (0.52)

The effect of any potential exercise of the Company's stock options outstanding during the year has been excluded from the calculation of diluted loss per common share as it would be anti-dilutive.

(Tabular amounts in thousands of US dollars, unless otherwise noted)

12. Stock-based compensation:

(a) Stock options

Under the Company's stock option plan, options, rights and other entitlements may be granted to directors, officers, employees and consultants of the Company to purchase up to a maximum of 17.5% of the total number of outstanding common shares, estimated at 15.6 million options, rights and other entitlements as at December 31, 2020. Options are granted at the fair market value of the common shares on the closing trading price of the Company's stock on the day prior to the grant if the grant is made during the trading day or the closing trading price on the day of grant if the grant is issued after markets have closed. Options vest at various rates (immediate to four years) and have a term of 10 years.

Stock option transactions for the years ended December 31, 2019 and 2020 are summarized as follows:

Option numbers are in (000's)

	Options	Weighted average exercise price	Weighted average remaining contractual life (years)	Aggregate Intrinsic Value
Outstanding, December 31, 2018	4,489	3.11		
Granted	2,160	2.00		
Exercised	(312)	2.32		
Expired	(67)	4.61		
Forfeited	(329)	2.36		
Outstanding, December 31, 2019	5,941	$ 2.84		
Granted	6,362	6.81		
Exercised	(235)	2.45		
Forfeited	(126)	4.50		
Outstanding, December 31, 2020	11,942	4.97	7.9	$ 9,142,263
Exercisable, December 31, 2020	4,363	3.06	6.2	$ 6,470,708
Vested and expected to vest, December 31, 2020	10,804	4.86	7.8	$ 8,741,530

Aggregate intrinsic value represents the excess of the value of the closing stock price on the previous trading day of the respective balance sheet dates over the exercise price of the stock options. Total intrinsic value of options exercised was $850 thousand for 2020 (2019 – $259 thousand).

As of December 31, 2020, there was $9.52 million of total unrecognized compensation cost related to non-vested stock options, which is expected to be recognized over an estimated weighted-average period of 1.83 years.

The following table presents the weighted average assumptions that were used in the Black-Scholes option pricing model to determine the fair value of stock options granted during the year, and the resultant weighted average fair values:

	Year ended December 31, 2020	Year ended December 31, 2019
Risk-free interest rate	1.27%	2.18%
Expected dividend yield	-	-
Expected volatility	85.9%	83.9%
Expected life of options (years)	5	5
Grant date fair value	$ 4.59	$ 1.34

The Company uses historical data to estimate the expected dividend yield and expected volatility of its common shares in determining the fair value of stock options. The expected life of the options represents the estimated length of time the options are expected to remain outstanding.

The following table presents the vesting terms of options granted in the period:

Option numbers are in (000's)	Year ended December 31, 2020 Number of options	Year ended December 31, 2019 Number of options
Cliff vesting after one year anniversary	300	335
3 year vesting (50%-25%-25%)	862	160
4 year vesting (50%-16 2/3%-16 2/3%-16 2/3%)	5,200	1,665
Total stock options granted in the period	6,362	2,160

(b) Restricted share units

The Company has a stock incentive plan (SIP) pursuant to which the Board may grant stock-based awards comprised of restricted stock units or dividend equivalents to employees, officers, consultants, independent contractors, advisors and non-employee directors of the Company. Each restricted unit is automatically redeemed for one common share of the Company upon vesting. The following table presents the activity under the SIP plan for the year ended December 31, 2020 and 2019 the units outstanding.

	Year ended, December 31, 2020		Year ended, December 31, 2019	
	Number (in thousands)	Weighted average grant date fair value	Number (in thousands)	Weighted average grant date fair value
Outstanding, beginning of year	40	$ 2.00	-	$ -
Granted	645	7.32	80	2.00
Redeemed	(685)	7.01	(40)	2.00
Outstanding, end of year	-	$ -	40	$ 2.00

On March 10, 2020, the Company granted 645,000 restricted share units (RSUs) with a vesting term of three months. On May 5, 2020, the vesting term on the RSUs was extended from three months to four months. On July 10, 2020, all of these restricted share units were vested and were redeemed for 645,000 common shares.

On June 3, 2019, the Company granted 80,000 restricted share units (RSUs), 40,000 restricted share units of which have a vesting term of three months and the balance having a vesting term of one year. On September 3, 2019, 50% of these restricted share units were vested and were redeemed for 40,000 common shares. On May 5, 2020, the vesting term on the balance was extended from one year to one year and one month. On July 2, 2020, the remaining of these restricted share units were vested and were redeemed for 40,000 common shares.

The grant date fair value of the March 10, 2020 and June 3, 2019 RSUs were determined as the closing value of the common shares of the Company on the Nasdaq Stock Market on the date prior to the date of grant.

(Tabular amounts in thousands of US dollars, unless otherwise noted)

(c) Share-based payment expense

The Company recorded share-based payment expense related to stock options and RSUs as follows:

	Year ended December 31, 2020	Year ended December 31, 2019
Research and development	$ 3,720	$ 474
General and administrative	17,718	1,822
Total	$ 21,438	$ 2,296

13. Related party transactions:

The Company uses Moores Cancer Center at the University of California San Diego (UCSD) to provide pharmacology lab services to the Company. Dr. Stephen Howell is a member of our Scientific Advisory Board and former Acting Chief Medical Officer of Aptose up to January 1, 2020 and is also a Professor of Medicine at UCSD and oversees the laboratory work. The work is completed under the terms of research services agreements executed in March 2015 and has been extended annually. These transactions are in the normal course of business and are measured at the amount of consideration established and agreed to by the related parties.

During the comparative year ended December 31, 2019, while Dr. Howell was Acting Chief Medical Officer, the Company recorded $223 thousand in research and development expenses related to the agreement.

14. Collaborative agreements:

The Company enters into research, development and license agreements in the ordinary course of business where the Company receives research services and rights to proprietary technologies. Milestone and royalty payments that may become due under various agreements are dependent on, among other factors, clinical trials, regulatory approvals and ultimately the successful development of a new drug, the outcome and timing of which is uncertain.

Under the Company's license agreement with CrystalGenomics for rights to CG-806, in all territories outside of the Republic of Korea and China, the Company has obligations for development milestones of $16 million related to the initiation of Phase 2 and pivotal clinical trials, and regulatory milestones totaling $44 million. The Company also has an obligation to pay royalty payments on sales of commercialized product. The timing of any milestone or royalty payments that may become due is not yet determinable.

On June 13, 2018, the Company entered into a license agreement with CrystalGenomics to gain an exclusive license to CG-806 in China. The Company has potential future obligations of development milestones of $6 million related to approval of an Investigational New Drug ("IND") and to the initiation of Phase 2 and pivotal clinical trials, and regulatory milestones totaling $20 million. The Company also has an obligation to pay sales milestones and royalty payments on sales of commercialized product. The timing or likelihood of any milestone or royalty payments that may become due is not yet determinable.

On March 7, 2018, we entered into an exclusive global license agreement with Ohm Oncology (OHM), for the development, manufacture and commercialization of APL-581, as well as related molecules from our dual bromodomain and extra-terminal domain motif (BET) protein and kinase inhibitor program. Under the agreement, we will retain reacquisition rights to certain molecules, while OHM/LALS will have the rights to develop and sublicense all other molecules. We have received two nominal upfront cash payments and are eligible to receive up to $125 million of additional payments based on the achievement of certain development, regulatory and sales milestones, as well as significant royalties on future sales generated from the program, if any.

(Tabular amounts in thousands of US dollars, unless otherwise noted)

15. Income taxes:

(a) Recent tax legislation

In December 2017 the U.S. government enacted comprehensive tax legislation, the Tax Cuts and Jobs Act (the "Tax Act"), which significantly revises the U.S. tax code, generally effective January 1, 2018, by lowering the U.S. federal corporate income tax rate from 35% to 21%, implementing a territorial tax system and setting limitations on the deductibility of certain costs (e.g. Interest expenses) among other things. As a Canadian entity, we generally would be classified as a foreign entity (and, therefore, a non-U.S. tax resident) under general rules of U.S. federal income taxation. However, we have a branch and U.S. subsidiary subject to U.S. federal income taxation.

(b) Income taxes

For the years ended December 31, 2019 and 2020, the total comprehensive loss is as follows:

		December 31, 2020		December 31, 2019
Loss attributed to US foreign operations	$	(39,757)	$	(20,470)
Loss attributed to Canadian operations		(15,481)		(5,807)
Income (loss) before income taxes	$	(55,238)	$	(26,277)

(c) Tax rate reconciliation

Major items causing the Company's income tax rate to differ from the statutory rate of approximately 26.5% (December 31, 2019 – 26.5%) are as follows:

		Year ended December 31, 2020		Year ended December 31, 2019
Net loss	$	(55,238)	$	(26,277)
Statutory Canadian corporate tax rate		26.5%		26.5%
Computed expected tax recovery	$	(14,638)	$	(6,963)
Non-deductible permanent differences		4,959		(1,305)
Change in valuation allowance		10,383		12,146
Foreign tax rate differential		(428)		(286)
Foreign exchange differences		-		-
Prior year true-up adjustments		(230)		(3,563)
Other		(46)		(29)
	$	-	$	-

(d) Significant components of deferred taxes

The tax effects of temporary differences that give rise to significant portions of the unrecognized deferred tax assets are presented below:

		December 31, 2020		December 31, 2019
Net operating losses carried forward	$	37,362	$	26,786
Research and development expenditures		5,032		5,031
Property, equipment, and other intangible assets		3,760		4,191
Research and development tax credits		3,597		3,685
Financing costs		2,336		2,010
Right-of-use assets		40		41
Total deferred tax assets		52,127		41,744
Valuation allowance		(52,127)		(41,744)
Net deferred tax asset	$	-	$	-

(Tabular amounts in thousands of US dollars, unless otherwise noted)

The valuation allowance at December 31, 2020 was primarily related to net operating loss carryforwards that, in the judgment of management, are not more-likely than-not to be realized. In assessing the realizability of deferred tax assets, management considers whether it is more-likely than-not that all or some portion of the deferred assets will not be realized. This ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the period in which those deductible temporary difference become deductible. Based on the history of losses and projections for future taxable income, management believes that it is not more-likely than-not that the Company will realize the benefits of these deductible temporary differences (e.g. deferred tax assets).

The Company has Canadian undeducted research and development expenditures, totaling $19.0 million that can be carried forward indefinitely. The Company also has Canadian non-refundable federal and provincial investment tax credits of approximately $3.6 million which are available to reduce future federal taxes payable and begin to expire in 2021, as well as non-refundable US research and development tax credits of approximately $0.9 million which are available to reduce future US taxes payable and begin to expire in 2038.

In addition, the Company has Canadian non-capital loss carryforwards of $135.2 million. To the extent that the non-capital loss carryforwards are not used, they begin to expire in 2026. The Company also has US non-capital loss carryforward of $0.7 million, To the extent that the non-capital loss carryforwards are not used, they begin to expire in 2034.

The Company files income tax returns with Canada and its provinces and territories. Generally, we are subject to routine examinations by the Canada Revenue Agency ("CRA"). Income tax returns filed with various provincial jurisdictions are generally open to examination for periods of four to five years subsequent to the filing of the respective return.

The Company also files income tax returns for our U.S. operations and subsidiary with the U.S. federal and state tax jurisdictions. Generally, we are subject to routine examination by taxing authorities in the U.S. jurisdictions. There are presently no examination of our U.S. federal and U.S. state returns. We believe that our tax positions comply with the applicable tax law.

16. Selected quarterly financial data (unaudited):

Selected financial data (unaudited) for the periods presented was as follows:

	March 31, 2020	June 30, 2020	September 30, 2020	December 31, 2020
Revenue	$ -	$ -	$ -	$ -
Net loss	(11,526)	(15,750)	(13,249)	(14,713)
Basic and diluted loss per common share	(0.15)	(0.21)	(0.15)	(0.17)

	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019
Revenue	$ -	$ -	$ -	$ -
Net loss	(5,506)	(6,218)	(6,844)	(7,709)
Basic and diluted loss per common share	(0.14)	(0.13)	(0.12)	(0.13)

17. Subsequent events

Subsequent to the year end, the Company issued 2,746,750 stock options to directors, officers, employees and consultants with an average exercise price of $4.36. The stock options vest 50% after one year and 16.67% on each of the next three anniversaries, except for 430,000 options which vest 50% after one year and 25% on each of the next two anniversaries.