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

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 OF THE SECURITIES EXCHANGE ACT OF 1934

For the month of August 2017

Commission File Number: 001-32001

Aptose Biosciences Inc.
(Translation of registrant's name into English)

5955 Airport Road, Suite 228
Mississauga, Ontario L4V 1R9
Canada
(*Address of principal executive offices*)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1) ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7) ☐

INCORPORATION BY REFERENCE

Exhibits 99.1 and 99.2 to this Report of Foreign Issuer on Form 6-K of Aptose Biosciences Inc. (the "Registrant") are hereby incorporated by reference into the registration statement on Form F-3 of the Registrant (File No. 333-200660) and the prospectus, forming a part thereof.

DOCUMENTS FILED AS PART OF THIS FORM 6-K

See Exhibit Index hereto.

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.

Aptose Biosciences Inc.

Date: August 8, 2017

By: "*Gregory Chow*"
Name: Gregory Chow
Title: Senior Vice President and Chief Financial Officer

EXHIBIT LIST

99.1	Interim Financial Statements
99.2	Management's Discussion and Analysis
99.3	CEO and CFO Certificates

Aptose Biosciences Inc.
Condensed Consolidated Interim Statements of Financial Position
(unaudited)

(amounts in 000's of Canadian Dollars)	**as at**	**June 30, 2017**	**December 31, 2016**
ASSETS			
Current			
Cash and cash equivalents (note 4(a))	**$**	**10,297**	$ 10,662
Investments (note 4(b))		**3,874**	-
Prepaid expenses and other assets		**300**	663
Total Current Assets		**14,471**	11,325
Non-current			
Equipment		**216**	285
Total Non-Current Assets		**216**	285
Total Assets	**$**	**14,687**	$ 11,610
LIABILITIES			
Current			
Accounts payable and accrued liabilities	**$**	**1,308**	$ 1,770
Total Current Liabilities		**1,308**	1,770
SHAREHOLDERS' EQUITY			
Share capital (note 6)		**242,185**	230,976
Other equity (note 7)		**7,114**	8,133
Contributed surplus		**23,700**	22,267
Accumulated other comprehensive income (loss)		**(488)**	-
Deficit		**(259,132)**	(251,536)
Total Equity		**13,379**	9,840
Total Liabilities and Equity	**$**	**14,687**	$ 11,610

See accompanying notes to the condensed consolidated interim financial statements (unaudited)
Commitments, contingencies and guarantees (note 10)
Subsequent event (note 12)

Aptose Biosciences Inc.
Condensed Consolidated Interim Statements of Loss and Comprehensive Loss
(unaudited)

(amounts in 000's of Canadian Dollars except for per common share data)	**Three months ended June 30, 2017**	Three months ended June 30, 2016	**Six months ended June 30, 2017**	Six months ended June 30, 2016
REVENUE	**$ -**	$ -	**$ -**	$ -
EXPENSES				
Research and development (note 9)	**1,462**	3,293	**3,757**	5,608
General and administrative (note 9)	**1,833**	2,343	**3,934**	4,951
Operating expenses	**3,295**	5,636	**7,691**	10,559
Finance expense (note 9)	**-**	9	**-**	205
Finance income (note 9)	**(54)**	(33)	**(95)**	(80)
Net financing income	**(54)**	(24)	**(95)**	125
Net loss for the period	**3,241**	5,612	**7,596**	10,684
Other comprehensive loss				
Items that may subsequently be reclassified to earnings:				
Foreign currency translation loss	**365**	**-**	**488**	**-**
Comprehensive loss for the period	**3,606**	**5,612**	**8,084**	**10,684**
Basic and diluted loss per common share	**$ 0.15**	$ 0.46	**$ 0.39**	$ 0.88
Weighted average number of common shares outstanding used in the calculation of basic and diluted loss per common share (000's) (note 6(c))	**21,309**	12,231	**19,375**	12,140

See accompanying notes to the condensed consolidated interim financial statements (unaudited)

Aptose Biosciences Inc.
Condensed Consolidated Interim Statement of Changes in Equity
(unaudited)

(amounts in 000's of Canadian Dollars)	Common Shares	Stock Options	Warrants	Contributed Surplus	Accumulated Other Comprehensive Income (Loss)	Deficit	Total
Balance, January 1, 2017	$ 230,976	$ 8,133	$ -	$ 22,267	$ -	$ (251,536)	$ 9,840
Shares issued under ATM (note 6)	10,981	-	-	-	-	-	10,981
Shares issued on redemption of Restricted share units (note 7)	228	(228)		-	-	-	-
Stock-based compensation (note 7)	-	642	-	-	-	-	642
Expiry of vested stock options	-	(1,433)	-	1,433	-	-	-
Cumulative translation account					(488)		(488)
Net loss	-	-	-	-	-	(7,596)	(7,596)
Balance, June 30, 2017	**$ 242,185**	**$ 7,114**	**$ -**	**$ 23,700**	**$ (488)**	**$ (259,132)**	**$ 13,379**
Balance, January 1, 2016	$ 223,425	$ 6,256	$ 84	$ 22,037	$ -	$ (232,909)	$ 18,893
Shares issued under ATM (note 6)	2,201	-	-	-	-	-	2,201
Stock-based compensation (note 7)	-	1,321	-	-	-	-	1,321
Expiry of vested stock options	-	(92)	-	92	-	-	-
Net loss	-	-	-	-	-	(10,684)	(10,684)
Balance, June 30, 2016	**$ 225,626**	**$ 7,485**	**$ 84**	**$ 22,129**	**$ -**	**$ (243,593)**	**$ 11,731**

Aptose Biosciences Inc.
Condensed Consolidated Interim Statements of Cash Flows
(unaudited)

(amounts in 000's of Canadian Dollars)	**Three months ended June 30, 2017**	Three months ended **June 30, 2016**	**Six months ended June 30, 2017**	Six months ended **June 30, 2016**
Cash flows used in operating activities:				
Net loss for the period	**$ (3,241)**	$ (5,612)	**$ (7,596)**	$ (10,684)
Items not involving cash and other adjustments:				
Stock-based compensation	**561**	786	**642**	1,321
Depreciation of equipment	**30**	32	**60**	65
Finance income	**(15)**	(33)	**(26)**	(80)
Unrealized foreign exchange loss/(gain)	**(39)**	23	**(67)**	264
Change in non-cash operating working capital (note 8)	**(867)**	156	**(99)**	(57)
Cash used in operating activities	**(3,571)**	(4,648)	**(7,086)**	(9,171)
Cash flows from financing activities:				
Proceeds from ATM (note 6 (a))	**6,088**	2,201	**10,981**	2,201
Cash provided by financing activities	**6,088**	2,201	**10,981**	2,201
Cash flows from investing activities:				
Investments in short-term investments	**(3,874)**		**(3,874)**	
Divestiture of short-term investments	**-**	8,286	**-**	8,245
Purchase of fixed assets	**-**	-	**-**	(3)
Interest received	**15**	33	**26**	80
Cash (used in) provided by investing activities	**(3,859)**	8,319	**(3,848)**	8,322
Effect of exchange rate fluctuations on cash and cash equivalents	**(319)**	(23)	**(412)**	(264)
(Decrease) in cash and cash equivalents during the period	**(1,661)**	5,849	**(365)**	1,088
Cash and cash equivalents, beginning of period	**11,958**	6,742	**10,662**	11,503
Cash and cash equivalents, end of period	**$ 10,297**	$ 12,591	**$ 10,297**	$ 12,591

1. Reporting Entity

Aptose Biosciences Inc. ("Aptose" or the "Company") is a clinical-stage biotechnology company committed to developing highly differentiated therapeutics that target the underlying mechanisms and unmet medical needs in oncology. Aptose is a publicly listed company incorporated under the laws of Canada. The Company's shares are listed on the Nasdaq Capital Markets and the Toronto Stock Exchange. The head office, principal address and records of the Company are located at 5955 Airport Road, Suite 228, Mississauga, Ontario, Canada, L4V 1R9

2. Basis of presentation

(a) Statement of Compliance
These unaudited condensed consolidated interim financial statements of the Company as at June 30, 2017, were prepared in accordance with International Financial Reporting Standards ("IFRS") and International Accounting Standard ("IAS") 34, *Interim Financial Reporting* as issued by the International Accounting Standards Board ("IASB") and do not include all of the information required for full annual financial statements. These unaudited condensed consolidated interim financial statements should be read in conjunction with the Company's audited annual consolidated financial statements and accompanying notes.

The unaudited condensed consolidated interim financial statements of the Company were reviewed by the Audit Committee and approved and authorized for issue by the Board of Directors on August 8, 2017.

(b) Functional and presentation currency
Effective January 1, 2017, the Company changed its functional currency to US dollars given the prevalence of US dollar denominated activities over time. Since the Company's inception in 1986 to fiscal 2014 all operations of the entity were conducted in Canada and the Canadian dollar was determined to be the functional currency. During fiscal years 2015 and 2016, the Company gradually transitioned most of its research and development activities, including both headcount and studies, to the US, and completed this transition in January 2017. The Company's source of financing, with the exception of the recent ATM, has been in Canadian dollars and the Company still has a majority of its shareholders in Canada. For that reason the Company has chosen to keep the presentation currency as Canadian.

(c) Significant accounting judgments, estimates and assumptions
The preparation of these unaudited condensed consolidated interim financial statements in accordance with IFRS 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 unaudited condensed consolidated interim financial statements and reported amounts of revenues and expenses during the reporting period. Actual outcomes could differ from these estimates.

Management's assessment of the Company's ability to continue as a going concern involves making a judgment, at a particular point in time, about inherently uncertain future outcomes and events or conditions. Please see note 5 (b) (ii) for a discussion of the factors considered by management in arriving at its assessment.

The unaudited condensed consolidated interim financial statements include estimates, which, by their nature, are uncertain. The impacts of such estimates are pervasive throughout the unaudited condensed consolidated interim 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.

The key assumptions concerning the future, and other key sources of estimation uncertainty as of the date of the statement of financial position that have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next fiscal year arise in connection with the valuation of contingent liabilities and valuation of tax accounts. Significant estimates also take place in connection with the valuation of share-based compensation and share purchase warrants.

3. Significant accounting policies

The accompanying unaudited condensed consolidated interim financial statements are prepared in accordance with IFRS and follow the same accounting policies and methods of application as the audited consolidated financial statements of the Company for the year ended December 31, 2016, except as noted below. They do not include all of the information and disclosures required by IFRS for annual financial statements. In the opinion of management, all adjustments considered necessary for fair presentation have been included in these unaudited condensed consolidated interim financial statements. Operating results for the three- and six-month periods ended June 30, 2017, are not necessarily indicative of the results that may be expected for the full year ended December 31, 2017. For further information, see the Company's audited consolidated financial statements including notes thereto for the year ended December 31, 2016.

Change in accounting policies:

Foreign currency translation:

Effective January 1, 2017, the Company changed its functional currency to US dollars. The change in functional currency from Canadian dollars to US dollars is accounted for prospectively from January 1, 2017. The Company's presentation currency of the Company is the Canadian dollar ("$").

Foreign currency transactions are translated into US dollars at rates prevailing on the transaction dates. At the end of each reporting period, monetary assets and liabilities denominated in foreign currencies are translated into US dollars at the rates in effect at that date. Foreign exchange gains and losses are recorded in the consolidated statement of loss.

For financial statement presentation, unrealized foreign exchange gains and losses resulting from the translation to Canadian dollars are reported in other comprehensive income.

4. Capital disclosures

The Company's objectives when managing capital are to:

- Maintain its ability to continue as a going concern;
- Maintain a flexible capital structure which optimizes the cost of capital at acceptable risk; and
- Ensure sufficient cash resources to fund its research and development activity, to pursue partnership and collaboration opportunities and to maintain ongoing operations.

The capital structure of the Company consists of cash and cash equivalents, investments and equity comprised of share capital, share purchase warrants, stock options, restricted share units, contributed surplus and deficit. The Company manages its capital structure and makes adjustments to it in light of economic conditions. The Company, upon approval from its Board of Directors, will balance its overall capital structure through new share issuances, acquiring or disposing of assets, adjusting the amount of cash balances or by undertaking other activities as deemed appropriate under the specific circumstances.

In December 2014, Aptose filed a short form base shelf prospectus (the "Base Shelf") that qualifies for the distribution of up to US$100,000,000 of common shares, warrants, or units comprising any combination of common shares and warrants ("Securities"). The distribution of Securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, or at prices related to such prevailing market prices to be negotiated with purchasers and as set forth in an accompanying prospectus supplement, including transactions that are deemed to be "at-the-market" distributions. The Base Shelf provides us with additional flexibility when managing our cash resources as, under certain circumstances, it shortens the time period required to close a financing and is expected to increase the number of potential investors that may be prepared to invest in our Company. Funds received from a Prospectus Supplement will be used in line with our Board approved budget and multi-year plan. Our Base Shelf expires in December 2017. The Base Shelf allowed us to enter into an "At-The-Market" Facility ("ATM") equity distribution agreement with Cowen and Company, LLC, acting as sole agent. Under the terms of this facility, we may, from time to time, sell shares of our common stock having an aggregate offering value of up to US$20 million through Cowen and Company, LLC on the Nasdaq Capital Market. We determine, at our sole discretion, the timing and number of shares to be sold under this ATM facility. We intend to use this equity arrangement as an additional option to assist us in achieving our capital objectives. The ATM provides the Company with the opportunity to regularly raise capital on the Nasdaq Capital Market, at prevailing market prices, at its sole discretion providing the ability to better manage cash resources.

The Company is not subject to externally imposed capital requirements.

The Company's overall strategy with respect to capital risk management remains unchanged from the year ended December 31, 2016.

(Tabular amounts are in 000s except per share amounts)

(a) Cash and cash equivalents:
Cash and cash equivalents consists of cash of $1.15 million (December 31, 2016 - $3.951 million) and a bankers' acceptance, a short-term treasury bill with original maturity of three months, and funds deposited into high interest savings accounts totaling $9.15 million (December 31, 2016 - $6.711 million). The current interest rate earned on these deposits is 0.45% - 0.8% (December 31, 2016 – 0.45% - 0.75%).

(b) Investments:
As at June 30, 2017, investments consisted of a bearer deposit note, held with a Canadian financial institution having a high credit rating, with maturity date of December 11, 2017, bearing interest rates of 1.00% per annum. As at December 31, 2016 there were no investments outstanding.

5. Financial instruments

(a) Financial instruments

The Company financial instruments are as follows:

		As at June 30, 2017		As at December 31, 2016
Financial assets				
Cash and cash equivalents (consisting of high interest savings accounts, treasury bill and short term bankers' acceptance), classified as loans and receivables and measured at amortized cost	**$**	**10,297**	$	10,662
Investments, consisting of fixed income securities, classified as loans and receivables and measured at amortized cost		**3,874**		-
Financial liabilities				
Accounts payable and accrued liabilities, classified as other liabilities and measured at amortized cost	**$**	**1,308**	$	1,770

At June 30, 2017, there are no significant differences between the carrying values of these amounts and their estimated market values.

(b) Financial risk management

The Company has exposure to credit risk, liquidity risk, foreign currency risk and market risk. The Company's Board of Directors has the overall responsibility for the oversight of these risks and reviews the Company's policies on an ongoing basis to ensure that these risks are appropriately managed.

(i) Credit risk

Credit risk is the risk of financial loss to the Company if a customer, partner or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's cash and cash equivalents. The carrying amount of the financial assets represents the maximum credit exposure.

The Company manages credit risk for 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 with debt securities that are traded on active markets and are capable of prompt liquidation.

(ii) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. To the extent that the Company does not believe it has sufficient liquidity to meet its current obligations, the Board considers securing additional funds through equity or debt transactions. The Company manages its liquidity risk by continuously monitoring forecasts and actual cash flows. All of the Company's financial liabilities are due within the current operating period.

In managing its liquidity risk, the Company has considered its available cash and cash equivalents and has reprioritized its resources towards the development of CG'806. The Company has also considered additional cash raised through its At-The-Market ("ATM") facility of $10.98 million ($US 8.2 million) in the six month period ended June 30, 2017, and its ability to continue to raise funds under this facility in 2017 in assessing whether it will have sufficient resources to fund research and development operations through to at least the twelve month period ending June 30, 2018.

After considering the above factors, management have concluded that there are no material uncertainties related to events or conditions that may cast substantial doubt upon the Company's ability to continue as a going concern. However, the estimates made by management in reaching this conclusion are based on information available as of the date these financial statements were authorized for issuance. Accordingly, actual experience will differ from those estimates and the variation may be material.

(iii) Market risk

Market risk is the risk that changes in market prices, such as interest rates, foreign exchange rates and equity prices will affect the Company's income or the value of its financial instruments.

The Company is subject to interest rate risk on its cash and cash equivalents and investments. The Company does not believe that the results of operations or cash flows would be affected to any significant degree by a sudden change in market interest rates relative to interest rates on the investments, owing to the relative short-term nature of the investments. The Company does not have any material interest bearing liabilities subject to interest rate fluctuations.

Currency risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. We are exposed to currency risk from employee costs as well as the purchase of goods and services for activities in Canada and the cash balances held in foreign currencies. Fluctuations in the Canadian dollar exchange rate could potentially have a significant impact on the Company's results. Assuming all other variables remain constant, a 10% depreciation or appreciation of the US dollar against the Canadian dollar would result in an increase or decrease in loss for the year of $153 thousand. Balances in foreign currencies at June 30, 2017, are as follows:

		CA$ Balances at June 30, 2017		CA$ Balances at December 31, 2016
Cash and cash equivalents	**$**	**1,946**	$	2,867
Accounts payable and accrued liabilities		**(260)**		(275)
	$	**1,686**	$	2,592

The Company does not have any forward exchange contracts to hedge this risk.

The Company does not invest in equity instruments of other corporations.

6. Share capital

The Company is authorized to issue an unlimited number of common shares.

(a) Continuity of common shares:

	Common shares		
	Number		Amount
	(in thousands)		
Balance, December 31, 2016	**15,722**	$	230,976
Common shares under the ATM (b)	**7,472**		10,981
Redemption of restricted share units	**150**		228
Balance, June 30, 2017	**23,344**	$	242,185

(b) Equity issuances:

At-The-Market ("ATM") Facility

On April 2, 2015, Aptose entered into an ATM equity facility with Cowen and Company, LLC, acting as sole agent. Under the terms of this facility, Aptose may, from time to time, sell shares of our common stock having an aggregate offering value of up to US$20 million through Cowen and Company, LLC on the Nasdaq Capital Market. The Company determines, at our sole discretion, the timing and number of shares to be sold under this ATM facility. As the shares issued under the ATM are issued pursuant to the Shelf Registration Statement on Form S-3, the ATM effectively expires with the Shelf on December 29, 2017.

(Tabular amounts are in 000s except per share amounts)

During the six months ended June 30, 2017, the Company issued 7,472,618 common shares under the ATM at a price of US$1.14 per share for gross proceeds of US$8.52 million or CDN$11.37 million (CDN$10.98 million net of share issue costs). Costs associated with the proceeds included a 3% cash commission as well as legal and accounting fees. On a cumulative basis to June 30, 2017, the Company has raised a total of US$14.57 million gross proceeds under the ATM facility.

(c) Loss per share

Loss per common share is calculated using the weighted average number of common shares outstanding for the three and six-month periods ending June 30, 2017 and 2016 calculated as follows:

	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	**June 30, 2017**	June 30, 2016
Issued common shares, beginning of period	**18,944**	12,048	**15,722**	12,048
Effect of ATM issuances	**2,362**	183	**3,651**	92
Effect of RSUs redemption	**3**	-	**2**	-
	21,309	12,231	**19,375**	12,140

The effect of any potential exercise of our stock options and warrants outstanding during the period has been excluded from the calculation of diluted loss per common share as it would be anti-dilutive.

7. Other equity

(a) Stock options transactions for the period:

	Six months ended June 30, 2017		Six months ended June 30, 2016	
	Number of Options	**Weighted average exercise price**	Number of Options	Weighted average exercise price
Outstanding, Beginning of period	**2,005**	**$ 5.79**	1,689	$ 6.31
Granted	**728**	**1.46**	382	3.82
Forfeited	**(142)**	**4.86**	(25)	8.73
Expired	**(263)**	**6.60**	-	-
Outstanding, end of period	**2,328**	**$ 4.40**	2,046	$ 5.81

(b) Stock options outstanding at June 30, 2017:

	Options outstanding			Options exercisable	
Range of exercise prices	Number of Options	Weighted average remaining contractual life (years)	Weighted average exercise price	Number of Options	Weighted average exercise price
$ 1.38 - $ 1.45	248	9.9	$ 1.35	-	$ -
$ 1.46 - $ 3.03	541	8.8	1.63	61	2.52
$ 3.04 - $ 5.49	397	8.2	4.09	237	4.15
$ 5.50- $ 6.39	625	6.8	5.80	625	5.79
$ 6.40 - $ 79.20	517	7.4	7.33	409	7.43
	2,328	7.9	$ 4.40	1,332	$ 5.86

(Tabular amounts are in 000s except per share amounts)

(c) Fair value assumptions

The following assumptions were used in the Black-Scholes option-pricing model to determine the fair value of stock options granted during the following periods:

		Six months ended June 30, 2017		Six months ended June 30, 2016
Weighted average exercise price	**$**	**1.47**	$	3.82
Weighted average grant date share price	**$**	**1.47**	$	3.82
Weighted average risk free interest rate		**1.24%**		0.68%
Expected dividend yield		**—**		—
Weighted average expected volatility		**100.2%**		109.5%
Weighted average expected life of options		**5 years**		5 years
Weighted average fair value of options granted in the period	**$**	**1.10**	$	2.99

Stock options granted by the Company during the six months ended June 30, 2017, vest 50% after one year and 16.67% on each of the next three anniversaries, with the exception of 135,000 options that vest 50% after one year and 25% on each of the next two anniversaries. During the three- and six-month periods ending June 30, 2017, the Company recorded share-based payment expense of $343 thousand (2016 - $786 thousand) and $414 thousand (2016 -$1,321 thousand), respectively, related to issued stock options.

Refer to note 9 for a breakdown of stock-based compensation expense by function related to both issued stock options and restricted share units.

The Company has available up to 4,085,201 common shares for issuance relating to outstanding options, rights and other entitlements under the stock-based compensation plans of the Company as of June 30, 2017.

(d) 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 Corporation or any affiliate. 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 three months ended June 30, 2017, and the units outstanding.

	Number		Weighted average grant date fair value
Outstanding, beginning of period	**-**	**$**	**-**
Granted	**150**		**1.52**
Redeemed	**(150)**		**1.52**
Outstanding, end of period	**-**	**$**	**-**

On March 28, 2017 the Company granted 150,000 restricted share units with a vesting term of three months, and accordingly, on June 28, 2017 all of these restricted share units vested and were redeemed for 150,000 common shares. During the three and six-month periods ending June 30, 2017, the Company recorded share-based payment expense of $218 thousand (2016 - nil) and $228 thousand (2016 – nil), respectively related to the issued RSUs.

The grant date fair value was determined as the closing value of the common shares of the Company on the Toronto Stock Exchange on the date prior to the date of grant.

(Tabular amounts are in 000s except per share amounts)

8. Additional cash flow disclosures

Net change in non-cash operating working capital is summarized as follows:

	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	**June 30, 2017**	June 30, 2016
Prepaid expenses and other assets	**$ 165**	$ 212	**$ 363**	$ 498
Accrued liabilities and accrued liabilities	**(1,032)**	(56)	**(462)**	(555)
	$ (867)	$ 156	**$ (99)**	$ (57)

9. Other expenses

Components of research and development expenses:

	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	**June 30, 2017**	June 30, 2016
Program costs, excluding salaries	**$ 930**	$ 1,317	**$ 2,572**	$ 2,842
Salaries	**422**	562	**988**	1,284
CrystalGenomics Option Fee (a)	**-**	1,294	**-**	1,294
Stock-based compensation	**98**	109	**166**	165
Depreciation of equipment	**12**	11	**31**	23
	$ 1,462	$ 3,293	**$ 3,757**	$ 5,608

(a) During the three month period ended June 30, 2016 the Company paid US$1.0 million ($1.3 million) to CrystalGenomics for an option fee related to the CG'806 technology. Should the Company elect to exercise the option prior to filing of an Investigational New Drug application with the Food and Drug Administration, the Company would pay an additional US$2 million in cash or common shares, and would receive full development and commercial rights for the program in all territories outside of Korea and China.

Components of general and administrative expenses:

	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	**June 30, 2017**	June 30, 2016
General and administrative excluding salaries	**$ 755**	$ 822	**$ 1,697**	$ 1,955
Salaries	**596**	823	**1,731**	1,798
Stock-based compensation	**463**	677	**476**	1,156
Depreciation of equipment	**19**	21	**30**	42
	$ 1,833	$ 2,343	**$ 3,934**	$ 4,951

Components of finance expense:

	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	**June 30, 2017**	June 30, 2016
Foreign exchange loss	**-**	9	**-**	205
	$ -	$ 9	**$ -**	$ 205

Components of finance income:

	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	**June 30, 2017**	June 30, 2016
Interest income	**$ 15**	$ 33	**$ 26**	$ 80
Foreign exchange gain	**39**	**-**	**69**	-
	$ 54	$ 33	**$ 95**	$ 80

10. Commitments, contingencies and guarantees.

(in thousands)	Less than 1 year	1-3 years	3-5 years	Total
Operating leases	$ 362	526	-	$ 888

The Company has entered into various contracts with service providers with respect to the clinical development of APTO-253 and for the development plan of CG'806. These contracts will result in future payments of up to $936 thousand.

11. 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 the Acting Chief Medical Officer of Aptose 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. In March 2015, the Company entered into a research services agreement that provided for an annual fee of US$154,456 to be paid to UCSD in monthly installments. In February 2016, this research services was extended for an additional 12 month period beginning April 1, 2016 for an annual fee of up to US$200,000. In May, 2017, the Company entered into another agreement with UCSD for an additional twelve month period for an annual fee of US$300,000. 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 six months ended June 30, 2017, the Company recorded $167 thousand (US$ – 125 thousand) (2016 – $107 thousand or US$81 thousand) in research and development expenses related to this agreement.

12. Subsequent Events

Subsequent to the quarter end, the Company issued 683,748 shares under the ATM for gross proceeds of US$1.0 million. This transaction will be accounted for in the three months ended September 30, 2017**.**

MANAGEMENT'S DISCUSSION AND ANALYSIS

For the three and six months ended June 30, 2017

August 8, 2017

This Management's Discussion and Analysis ("MD&A") of Aptose Biosciences Inc. ("Aptose", the "Company", "we", "our", "us" and similar expressions) for the interim period should be read in conjunction with the Company's unaudited condensed consolidated interim financial statements for the three and six months ended June 30, 2017 and 2016 which are incorporated by reference herein and form an integral part of this MD&A. The June 30, 2017 interim financial statements and additional information about the Company, including the annual audited financial statements and MD&A as at December 31, 2016 and for the year then ended, and the annual report on form 20-F of the Company as at December 31, 2016 and for the year then ended can be found on SEDAR at www.sedar.com and EDGAR at www.sec.gov/edgar.shtml.

All amounts are expressed in Canadian dollars unless otherwise stated.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This management's discussion and analysis may contain forward-looking statements within the meaning of securities laws. Such statements include, but are not limited to, statements relating to:

- *our ability to obtain the substantial capital we require to fund research and operations;*
- *our business strategy;*
- *our clinical development plans;*
- *our plans to secure strategic partnerships to assist in the further development of our product candidates and to build our pipeline;*
- *our plans to conduct clinical trials and preclinical programs;*
- *our reliance on external contract research/manufacturing organizations for certain activities;*
- *potential exposure to legal actions and potential need to take action against other entities;*
- *our expectations regarding the progress and the successful and timely completion of the various stages of our drug discovery, drug synthesis and formulation, preclinical and clinical studies and the regulatory approval process;*
- *our plans, objectives, expectations and intentions; and*
- *other statements including words such as "anticipate", "contemplate", "continue", "believe", "plan", "estimate", "expect", "intend", "will", "should", "may", and other similar expressions.*

The forward-looking statements reflect our current views with respect to future events, are subject to significant risks and uncertainties, and are based upon a number of estimates and assumptions that, while considered reasonable by us, are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause our actual results, performance or achievements to be materially different from any future results, performance, or achievements that may be expressed or implied by such forward-looking statements, including, among others:

- *our ability to obtain the substantial capital we require to fund research and operations;*
- *our lack of product revenues and history of operating losses;*
- *our early stage of development, particularly the inherent risks and uncertainties associated with (i) developing new drug candidates generally, (ii) demonstrating the safety and efficacy of these drug candidates in clinical studies in humans, and (iii) obtaining regulatory approval to commercialize these drug candidates;*
- *our drug candidates require time-consuming and costly synthesis and formulation, preclinical and clinical testing and regulatory approvals before commercialization;*
- *clinical studies and regulatory approvals of our drug candidates are subject to delays, and may not be completed or granted on expected timetables, if at all, and such delays may increase our costs and could delay our ability to generate*
- *our reliance on external contract research/manufacturing organizations for certain activities;*
- *potential exposure to legal actions and potential need to take action against other entities;*
- *the regulatory approval process;*
- *our ability to recruit patients for clinical trials;*
- *the progress of our clinical trials;*
- *our ability to find and enter into agreements with potential partners;*
- *our ability to attract and retain key personnel;*
- *our ability to obtain and maintain patent protection;*
- *our ability to protect our intellectual property rights and not infringe on the intellectual property rights of others;*
- *our ability to comply with applicable governmental regulations and standards;*
- *development or commercialization of similar products by our competitors, many of which are more established and have or have access to greater financial resources than us;*
- *commercialization limitations imposed by intellectual property rights owned or controlled by third parties;*
- *potential product liability and other claims;*
- *our ability to maintain adequate insurance at acceptable costs;*
- *further equity financing, which may substantially dilute the interests of our existing shareholders;*
- *exposure to fluctuations of foreign currencies;*
- *changing market conditions; and*
- *other risks detailed from time-to-time in our on-going quarterly filings, annual information forms, annual reports and annual filings with Canadian securities regulators and the United States Securities and Exchange Commission, and those which are discussed under the heading "Risk Factors" in this document.*

Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" underlying those forward-looking statements prove incorrect, actual results may vary materially from those described herein. These forward-looking statements are made as of the date of this management's discussion and analysis or, in the case of documents incorporated by reference herein, as of the date of such documents, and we do not intend, and do not assume any obligation, to update these forward-looking statements, except as required by law. We cannot assure you that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

CORPORATE UPDATE

The following items highlight our corporate activities during the three and six months ended June 30, 2017 and any subsequent development up until the date hereof.

PROGRAM UPDATES

CG'806

In June 2016, Aptose announced a definitive agreement with South Korean company CrystalGenomics, Inc. ("CG"), granting Aptose an exclusive option to research, develop and commercialize CG026806 ("CG'806") in all countries of the world except the Republic of Korea and China, for all fields of use. CG'806 is a highly potent, orally bioavailable non-covalent small molecule being developed for acute myeloid leukemia (AML) and certain B cell malignancies because of its actions as a pan-FLT3/BTK inhibitor. Aptose paid US$1.0 million (CA$1.294 million) (the "Option Grant Fee") to CG to acquire the option. Should we elect to exercise the option, upon exercise, we would pay an additional US$2.0 million (the "Option Exercise Fee") in cash or combination of cash and common shares, and would receive full development and commercial rights for the program in all territories outside of the Republic of Korea and China. The option fee is due on the earlier of (i) filing of an Investigational New Drug ("IND") application with the FDA, (ii) first dosage of a human in a clinical trial or (iii) expiration of the option which occurs twenty-four (24) months after the payment of the Option Grant Fee, or June 2018.

CG'806 exhibits a picomolar IC50 toward the FMS-like tyrosine kinase 3 (FLT3) with the Internal Tandem Duplication ("FLT3-ITD"), potency against the wild type FLT3 and a host of mutant forms of FLT3, as well as single-digit nanomolar IC50's against Bruton's tyrosine kinase ("BTK") and its C481S mutant ("BTK-C481S"). Consequently, CG'806 is characterized as a pan-FLT3/BTK inhibitor. Further, CG'806 represents a multi-kinase inhibitor that also impacts other relevant oncogenic targets, including the Aurora kinases ("AURK"), RET, MET, DDR2, TRK and SRC kinases that are operative in AML and certain B cell malignancies.

As a potent inhibitor of FLT3-ITD, CG'806 may become an effective therapy in a high-risk subset of AML patients. This is because the FLT3-ITD mutation occurs in approximately 30% of patients with AML and is associated with a poor prognosis. In murine xenograft studies of human AML (FLT3-ITD), CG'806 administered orally once daily for 14 days resulted in tumor elimination without measurable toxicity. Importantly, CG'806 targets other oncogenic kinases which may also be operative in FLT3-ITD AML, including wild type FLT3, BTK, AURK, RET and SRC family kinases, thereby potentially allowing the agent to become an important therapeutic option for a broader group of this difficult-to-treat AML patient population.

Separate from the AML and FLT3 story, overexpression of the BTK enzyme can drive oncogenic expression of certain B cell malignancies, such as chronic lymphocytic leukemia (CLL), mantle cell lymphoma (MCL), diffuse large cell B cell lymphoma (DLBCL) and others. Therapy of these patients with covalent, irreversible BTK inhibitors, such as ibrutinib, that target the active site Cysteine ("Cys") residue of BTK can be beneficial in many patients. However, therapy with covalent BTK inhibitors can select for BTK with a C481S mutation, thereby conferring resistance to covalent BTK inhibitors. Furthermore, approximately half of CLL patients have discontinued treatment with ibrutinib after four years of therapy due to the development of resistance, refractory properties, or intolerance to ibrutinib, according to a study performed at The Ohio State University. As a non-covalent, reversible inhibitor of BTK, CG'806 does not rely on the Cysteine 481 residue (C481) for inhibition of the BTK enzyme. Indeed, recent X-ray crystallographic studies demonstrated that CG'806 binds productively to the BTK active site in a position that is indifferent to the presence or absence of mutations at the 481 residue. Consequently, patients who have relapsed, are refractory or intolerant to ibrutinib or other commercially approved or development stage BTK inhibitors with B cell malignancies may continue to be sensitive to CG'806 therapy. This is particularly true since CG'806 inhibits the wild type and mutant forms of BTK, as well as other kinases that drive the survival and proliferation of B cell malignancies.

Aptose has invested significant time, effort and capital to create a scalable synthetic route for the manufacture of CG'806 drug substance, to develop an oral formulation for clinical development, and to study the actions of CG'806 in various preclinical biological pathway studies. We now have solved the synthetic route and can scale the manufacture of API and are now manufacturing a batch of API which will be used for planned Dose Range Finding Studies and toxicology studies. Likewise, we now can report that we selected the oral formulation that we intend to take into first-in-human clinical trials. Provided the studies continue on the anticipated timeline, Aptose expects to initiate a first-in-human clinical trial during 2018, and greater granularity on the timing of the IND submission and clinical trial will be provided in the coming months. CG'806 is being developed with the intent to deliver the agent as an oral therapeutic and to develop it in parallel for AML and for appropriate B cell malignancies.

On May 7, 2017, Aptose presented preclinical data for its pan-FLT3/BTK inhibitor CG'806 at the 2017 American Association for Cancer Research (AACR) Conference for Hematologic Malignancies: Translating Discoveries to Novel Therapies in Boston, MA. Two separate presentations highlighting CG'806 were presented. In one presentation, Aptose scientists, with researchers from the Knight Cancer Institute at Oregon Health & Science University (OHSU), presented data relating to the potency of CG'806 against samples derived from patients with various hematologic malignancies. In a separate presentation, Aptose scientists, with researchers from the MD Anderson Cancer Center, presented data demonstrating CG'806's potent activity against AML cells harboring wild type or specific mutant forms of FLT3.

On August 4th, 2017 we received a notice from the USPTO stating that our U.S. Patent Application is allowed for issuance as a patent. The allowed application claims numerous compounds, including the CG'806 compound, pharmaceutical compositions comprising the CG'806 compound, and methods of treating various diseases caused by abnormal or uncontrolled activation of protein kinases. Please note that the notice of allowance is not a grant of patent rights and although it is uncommon, the USPTO can withdraw the allowed application from issuance.

Finally, five abstracts related to the mechanistic properties of CG'806 in AML cells and in B cell malignancy cells have been submitted for presentation to the 2017 Meeting of the American Society of Hematology ("ASH").

APTO-253

Phase Ib Trial

APTO-253, a small molecule c-Myc inhibitor, was being evaluated by Aptose in a Phase 1b clinical trial in patients with relapsed / refractory hematologic malignancies, particularly AML. For the study, a modified dose schedule was selected relative to the prior Phase 1 solid tumor study, in order to more consistently achieve the minimum exposure levels at the end of each dosing period that may be important for efficacy.

The Phase 1b study was originally designed for approximately 15 patients to be enrolled in each of two arms of the dose escalation phase of the study: arm (A) was to include patients with acute leukemias (including AML) and high-risk myelodysplastic syndromes ("MDS"); arm (B) was to include patients with lymphomas (Hodgkin's and non-Hodgkin's Lymphoma) and multiple myeloma, followed by enrollment of an additional fifteen (15) patients in each of two separate disease-specific expansion cohorts, for a total estimated enrollment of 60 patients.

Aptose modified the clinical trial design for the Phase 1b study, pending submission and review from regulatory authorities (Institutional Review Boards ("IRB") & the Food and Drug Administration ("FDA"), in order to focus all resources on the patient population most likely to benefit from APTO-253. Under the proposed modification, arm B of the dose-escalation phase of the study, as described above, would be discontinued. Arm A of the study, focused on patients with acute leukemias (particularly AML) and MDS would remain unchanged.

Upon completion of the dose-escalation stage of the study and determination of the appropriate dose, the study would plan to enroll additional AML patients for a disease-specific single-agent expansion cohorts.

For future development, upon selection of a lead hematologic indication from this Phase 1b study, combination of APTO-253 with a standard therapy would be considered.

Clinical Hold and Current Status

We announced in November 2015 that the FDA, following a voluntary suspension of dosing by Aptose and discussions with us, placed our Phase Ib clinical trial of APTO-253 in patients with hematologic cancers on clinical hold. This hold was intended to evaluate the administration methods within the trial and to ensure manufacturing and dosing procedures are consistent with FDA guidance and the Code of Federal Regulations.

The voluntary suspension of dosing by Aptose, followed by a clinical hold by the FDA, was initiated to evaluate manufacturing processes and procedures upon the report of an operational difficulty with an IV infusion pump at a clinical site. During dosing of a patient with 100 mg/m^2 dose, the clinical site experienced an infusion pump stoppage, caused by backflow pressure as a result of clogging of the in-line filter used during the infusion. A safety review of the relevant safety data had been completed prior to initial discovery of the manufacturing irregularities, and there have been no drug-related serious adverse events ("SAEs") reported. The observed pharmacokinetic levels in the patients treated were within the expected range. Thus, the clinical hold is based solely on the operation of the administration of the subject infusion at the clinical site, which is related to a product chemistry issue and not shown to be related to safety, efficacy or pharmacokinetic profile of the molecule.

In the first half of 2016, we determined that the root cause of the filter clogging event with the prior drug product was chemistry-based. Good Manufacturing Practice ("GMP") batches of the Active Pharmaceutical Ingredient ("API") were then manufactured to provide material for formulation studies and to supply the clinical drug product into the future. Utilizing the newly manufactured GMP API, we guided a qualified CMO to introduce new methodologies to formulate APTO-253 into a drug product that is safe and stable, and which should not result in filter clogging events in the future. Based on numerous formulation development studies, a new soluble and stable formulation for the drug product was selected. In parallel with these studies, mock infusion studies using the newly formulated prototype drug product demonstrated no filter clogging, and supplementary mock infusion studies were performed at multiple CROs to ensure the durability and solubility of the new formulation to be used in the infusion process/filter clogging that caused the clinical hold. In order to respond to the FDA's inquiry on the filter clogging issue which could result in the clinical hold being removed, Aptose must articulate the root cause of the filter clogging incident to the FDA and demonstrate to the FDA that a newly manufactured batch of GMP-grade APTO-253 drug substance and drug product has been formulated and should not cause such incidents in the future. On September 12, 2016, we submitted a formal response to the FDA regarding the clinical hold of our Phase 1b clinical trial of APTO-253 in patients with hematologic cancers.

On October 12, 2016, we received a response from the FDA informing us that the clinical hold would remain in place until Aptose provides to the FDA the standard chemistry, manufacturing and control ("CMC") information on the final GMP drug substance and drug product that would be manufactured for the clinic. Data provided to the FDA in our response to the clinical hold questions were collected using prototype batches of API and drug product. As the drug substance was changed from a salt to a free base, and the proportions of the original excipients were modified in the drug product formulation, the FDA requested additional information on the GMP-grade drug substance and drug product that would be manufactured for use in the clinic prior to making a decision on the hold and approval for the re-initiation of the clinical trial.

We then developed a drug product that does not cause filter clogging or pump stoppage during simulated infusion studies, and we believe it should not do so in the clinical setting. The new formulation of APTO-253 offers the potential for improved handling characteristics for administration by infusion and the potential for creating new intellectual property. However, there can be no assurance that the FDA will remove the clinical hold, which could cause additional development costs to the Company.

On December 29, 2016, we announced that we had successfully manufactured multiple non-GMP batches of a new drug product formulation for APTO-253, including a batch that had been stable and soluble for over six months. However, we also announced that we would need to repeat the production of the fourth batch, a 40L batch that was the intended clinical supply because of an unanticipated mishap that occurred during the filling process that compromised the stability of that batch of drug product. At that time, we believed that the root cause of the drug product stability failure and a corrective action ("CAPA") could be determined rapidly and that another manufacturing campaign to produce a GMP grade clinical supply could be initiated in January 2017.

On January 23, 2017, we announced that the root cause and CAPA studies would take longer than originally expected and that we would temporarily delay clinical activities with APTO-253 in order to elucidate the cause of recent manufacturing setback, with the intention of restoring the molecule to a state supporting clinical development and partnering. Subsequent to March 31, 2017, studies to determine the root cause have continued in earnest and are ongoing. Preliminary root cause analyses studies point to the suspected reason for the drug product stability failure. If the ongoing formal studies clearly define the root cause and establish a corrective and prevention action plan for the manufacture of drug product, Aptose would plan to present the findings to the FDA with the hope of returning APTO-253 to a state that it can be reintroduced into the clinical trial. The scientific and preclinical data continue to support the development of APTO-253, and the potential return of APTO-253 to the clinic may represent a major value driver for the Company.

Finally, two abstracts related to the mechanistic properties of APTO-253 have been submitted for presentation to the 2017 Meeting of the American Society of Hematology ("ASH").

Multi-Targeting Bromodomain Program

In November 2015, Aptose entered into a definitive agreement with Moffitt Cancer Center for exclusive global rights to potent, dual-targeting, single-agent inhibitors for the treatment of hematologic and solid tumor cancers. These small molecule agents are highly differentiated inhibitors of the Bromodomain and Extra-Terminal motif ("BET") protein family members, which simultaneously target specific kinase enzymes. The molecules developed by Moffitt were reported to exhibit potency against the BET family members, including bromodomain 4 ("BRD4"), and specific oncogenic kinases which, when inhibited, are synergistic with BET inhibition. Under the agreement, Aptose has access to the drug candidates developed by Moffitt and the underlying intellectual property covering certain chemical modifications enabling bromodomain ("BRD") inhibition on the chemical backbone of a kinase inhibitor.

In January 2017, Aptose terminated the collaboration with Moffitt Cancer Center for the development of the dual BRD4 / JAK2 inhibitor program as the Company reprioritizes resources towards the development of CG'806.

Multi-Targeting Epigenetic Program

In November 2015, Aptose announced an exclusive drug discovery partnership with Laxai Avanti Life Sciences ("LALS") for the development of next generation epigenetic-based therapies. Under the agreement, LALS is responsible for optimizing candidates derived from Aptose's relationship with the Moffitt Cancer Center. Aptose will own global rights to all newly discovered candidates characterized and optimized under the collaboration, including all generated intellectual property. As of November 2016, Aptose and LALS had generated novel compounds that inhibit both the bromodomain proteins and oncogenic kinases, while improving pharmaceutical properties that could serve as a basis for further optimization towards a lead preclinical candidate. However, due to a prioritization of development efforts, Aptose and LALS have suspended work on the program, and the collaboration with LALS has been terminated. However, the program delivered novel intellectual property and hit molecules for further optimization. As a consequence, Aptose may choose to out-license the program**.**

FINANCING ACTIVITIES

At-The-Market ("ATM") Facility

On April 2, 2015, Aptose entered into an at-the-market equity facility ("ATM Facility") with Cowen and Company, LLC, acting as sole agent. Under the terms of this facility, Aptose may, from time to time, sell common shares having an aggregate offering value of up to US$20 million through Cowen and Company, LLC. The Company determines, at its sole discretion, the timing and number of shares to be sold under the ATM Facility.

During the six months ended June 30, 2017, the Company issued 7,472,618 common shares through the ATM raising net proceeds of US$8.2 million or CA$10.98 million. Costs associated with the proceeds included a 3% cash commission as well as legal and accounting fees.

Subsequent to June 30, 2017, we issued 683,748 additional common shares under the ATM Facility for gross proceeds of US$1.0 million. On a cumulative basis, the Company has issued common shares under the ATM facility, for gross proceeds of US15.6 million, leaving US$4.4 million available.

LIQUIDITY AND CAPITAL RESOURCES

Since its inception, Aptose has financed its operations and technology acquisitions primarily from equity and debt financing, proceeds from the exercise of warrants and stock options, and interest income on funds held for future investment.

We currently do not earn any revenues from our drug candidates and are therefore considered to be in the development stage. The continuation of our research and development activities and the commercialization of the targeted therapeutic products are dependent upon our ability to successfully finance and complete our research and development programs through a combination of equity financing and payments from strategic partners. We have no current sources of significant payments from strategic partners.

In managing its liquidity risk, the Company has considered its available cash and cash equivalents and has reprioritized its resources towards the development of CG'806. The Company has also considered additional cash raised through its At-The-Market ("ATM") facility for net proceeds of $10.98 million (US$8.2 million) in the six months ended June 30, 2017, and its ability to continue to raise funds under this facility in 2017 in assessing whether it will have sufficient resources to fund research and development operations through to at least the twelve month period ending June 30, 2018.

After considering the above factors, management has concluded that there are no material uncertainties related to events or conditions that may cast substantial doubt upon the Company's ability to continue as a going concern. However, the estimates made by management in reaching this conclusion are based on information available as of the date this MD&A. Accordingly, actual experience will differ from those estimates and the variation may be material.

CRITICAL ACCOUNTING POLICIES

Critical Accounting Policies and Estimates

We periodically review our financial reporting and disclosure practices and accounting policies to ensure that they provide accurate and transparent information relative to the current economic and business environment. As part of this process, Aptose has reviewed its selection, application and communication of critical accounting policies and financial disclosures. Management has discussed the development and selection of the critical accounting policies with the Audit Committee of the Board of Directors and the Audit Committee has reviewed the disclosure relating to critical accounting policies in this MD&A. Other important accounting policies are described in note 3 of the audited financial statements for the year ended December 31, 2016.

Management's assessment of the Company's ability to continue as a going concern involves making a judgment, at a particular point in time, about inherently uncertain future outcomes and events or conditions. Please see the "*Liquidity and Capital Resources*" section in this document for a discussion of the factors considered by management in arriving at its assessment.

Change in Functional Currency

Effective January 1, 2017, the Company changed its functional currency to US dollars given the prevalence of US dollar denominated activities over time. Since the Company's inception in 1988 to fiscal 2014 all operations of the entity were conducted in Canada and the Canadian dollar was determined to be the functional currency. During fiscal years 2015 and 2016, the Company gradually transitioned most of its research and development activities, including both headcount and studies, to the US and completed this transition in January 2017. The Company's source of financing, with the exception of the recent ATM, has been in Canadian dollars and the Company still has a majority of its shareholders in Canada. For this reason the Company has chosen to keep the presentation currency in Canadian dollars.

Change in Accounting Policies

Effective January 1, 2017, the Company changed its functional currency to US dollars. The change in functional currency from Canadian dollars to US dollars is accounted for prospectively from January 1, 2017. The Company's presentation currency is the Canadian dollar ("$").

Foreign currency transactions are translated into US dollars at rates prevailing on the transaction dates. At the end of each reporting period, monetary assets and liabilities denominated in foreign currencies are translated into US dollars at the rates in effect at that date. Foreign exchange gains and losses are recorded in the consolidated statement of loss.

For financial statement presentation, unrealized foreign exchange gains and losses resulting from the translation to Canadian dollars are reported in other comprehensive income.

CASH POSITION

At June 30, 2017, we had cash and cash equivalents and investments of $14.2 million compared to cash and cash equivalents of $10.7 million at December 31, 2016 and cash and cash equivalents and investments of $12.6 million at June 30, 2016. We generally invest our cash in excess of current operational requirements in highly rated and liquid instruments. Investment decisions are made in accordance with an established investment policy administered by senior management and overseen by our Audit Committee and Board of Directors. As at June 30, 2017, our cash and cash equivalents consisted of cash of $1.15 million (December 31, 2016 - $3.9 million and June 30, 2016 - $ 3.1 million) and in funds deposited into high interest savings accounts in both Canadian and US funds totaling $ 9.1 million (December 31, 2016 - $6.7 million and June 30, 2016 - $9.5 million). Working capital (representing primarily cash, cash equivalents, investments and other current assets less current liabilities) at June 30, 2017 was $13.2 million (December 31, 2016 –$9.6 million and June 30, 2016 - $11.4 million). Total assets as of June 30, 2017 total $14.7 million (December 31, 2016 - $11.6 million and June 30, 2016 - $13.5 million).

We do not expect to generate positive cash flow from operations for the foreseeable future due to additional research and development costs, including costs related to drug discovery, preclinical testing, clinical trials, and manufacturing, as well as operating expenses associated with supporting these activities. 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.

RESULTS OF OPERATIONS

Our net loss for the three months ended June 30, 2017 was $3.2 million ($0.15 per share) compared with $5.6 million ($0.46 per share) during the three months ended June 30, 2016. Our net loss for the six months ended June 30, 2017 was $7.6 million ($0.39 per share) compared with a loss of $10.7 million ($0.88 per share) during the six months ended June 30, 2017.

The decrease in the net loss during the three and six months ended June 30, 2017 compared with the three and six months ended June 30, 2016 is primarily related to the $1.3 million option fee paid to CrystalGenomics for its CG'806 technology in June of 2016, the cancellation of the LALS/Moffitt collaboration, and lower costs associated with the APTO-253 program, offset by development activities related to the CG'806 development program which started in the second half of fiscal 2016.

At June 30, 2017, we had cash and cash equivalents and investments of $14.2 million compared to cash and cash equivalents of $10.7 million at December 31, 2016and cash and cash equivalents and investments of $12.6 million at June 30, 2016.

Research and Development

Research and development expenses totaled $1.5 million in the three months ended June 30, 2017 compared with $3.3 million in the three months ended June 30, 2016. Research and development expenses totaled $3.8 million in the six months ended June 30, 2017 compared with $5.6 million in the six months ended June 30, 2016. Research and development costs consist of the following:

Components of research and development expenses:

	Three months ended		Six months ended	
(in thousands)	**June 30, 2017**	June 30, 2016	**June 30, 2017**	June 30, 2016
CrystalGenomics Option Fee	**$ -**	$ 1,294	**$ -**	$ 1,294
Program costs – CG '806	**479**	19	**1,019**	19
Program costs – APTO-253	**451**	834	**1,553**	1,874
Program costs – LALS/Moffitt	**-**	464	**-**	949
Salaries	**422**	562	**988**	1,284
Stock-based compensation	**98**	109	**166**	165
Depreciation of equipment	**12**	11	**31**	23
	$ 1,462	$ 3,293	**$ 3,757**	$ 5,608

The changes in research and development expenses results from the following:

- In the comparative period, the Company paid US$1.0 million ($1.3 million) to CrystalGenomics for an option fee related to the CG'806 technology and in that period began research and development activities for this program.
- Research and development activities, including formulation studies and PK studies, related to CG'806 development program;
- Reduced expenditures on the APTO-253 program. In the current three and six month periods, the Company was conducting root cause analysis to determine the cause of the manufacturing issues. In the comparative periods the Company was actively manufacturing a new clinical batch.
- Lower salaries expense mostly related to severance payments made in the three months ended March 31, 2016 when research headcount was reduced and savings resulting from the reduced headcount.
- Savings from cancellation of the LALS/Moffitt collaboration which was active in the three and six months ended June 30, 2016. There are no costs related to this program in the current period.

General and Administrative

General and administrative expenses totaled $1.8 million in the three months ended June 30, 2017, compared to $2.3 million in the three months ended June 30, 2016. For the six month period ended June 30, 2016, general and administrative expenses totaled $3.9 million compared with $5.0 million in the same period in the prior year. General and administrative costs consist of the following:

Components of general and administrative expenses:

	Three months ended		Six months ended	
(in thousands)	**June 30, 2017**	June 30, 2016	**June 30, 2017**	June 30, 2016
General and administrative excluding salaries	**$ 755**	$ 822	**$ 1,697**	$ 1,955
Salaries	**596**	823	**1,731**	1,798
Stock-based compensation	**463**	677	**476**	1,156
Depreciation of equipment	**19**	21	**30**	42
	$ 1,833	$ 2,343	**$ 3,934**	$ 4,951

General and administrative expenses excluding salaries, decreased in the three months ended June 30, 2017, compared with the three months ended June 30, 2016. The decrease is mostly the result of lower travel, consulting and rent costs in the current year related to cost containment initiatives taken in the prior fiscal year. Salaries expenses in the three months ended June 30, 2017, decreased in comparison with the three months ended June 30, 2016, due to the cost related mostly to the reduced headcount.

General and administrative expenses excluding salaries, decreased in the six months ended June 30, 2017, compared with the six months ended June 30, 2016. The decrease is mostly the result of lower travel, consulting and rent costs in the current year related to cost containment initiatives taken in the prior fiscal year. Salaries expense for the six months ended June 30, 2017 is comparable to the salaries expense in the six months ended June 30, 2016. Severance and separation costs incurred in the three months ended March 31, 2017 are offset by savings in the three months ended June 30, 2017 as a result of the lower headcount.

Stock-based compensation decreased in the three and six months ended June 30, 2017, compared with the three and six months ended June 30, 2016, due to large forfeitures in the three months ended March 31, 2017 and also due to grants in prior periods having a greater fair value than the grants issued in the three and six months ended June 30, 2017, and therefore contributing to higher stock-based compensation in the three and six months period ended June 30, 2016.

Finance Expense

For the three months ended June 30, 2017, finance expense totaled $nil compared with $9 thousand for the three months ended June 30, 2016. Finance expense includes the following items:

(in thousands)	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	**June 30, 2017**	June 30, 2016
Foreign exchange loss	**-**	9	**-**	205
	$ -	$ 9	**$ -**	$ 205

Foreign exchange loss in the six months ended June 30, 2016, is the result of a decrease in the value of US dollar denominated cash and cash equivalents balances during the period due to an appreciation of the Canadian dollar compared to the US dollar. During this period the Company's functional currency was the Canadian dollar.

Finance Income

Finance income totaled $54 thousand in the three months ended June 30, 2017 compared to $33 thousand in the three months ended June 30, 2016.

Finance income includes the following items:

(in thousands)	Three months ended		Six months ended	
	June 30, 2017	June 30, 2016	**June 30, 2017**	June 30, 2016
Interest income	**$ 15**	$ 33	**$ 26**	$ 80
Foreign exchange gain	**39**	-	**69**	-
	$ 54	$ 33	**$ 95**	$ 80

Interest income represents interest earned on our cash and cash equivalent and investment balances. Foreign exchange gains in the three and six months ended June 30, 2017, are the result of an appreciation of the Canadian dollar compared to the US dollar. During this period the Company's functional currency was the US dollar. Effective January 1, 2017, the Company changed its functional currency to US dollar.

Net loss and total comprehensive loss for the period

For the reasons discussed above, our net loss for the three months ended June 30, 2017 decreased to $3.2 million compared to $5.6 million in the three months ended June 30, 2016 and our net loss for the six months ended June 30, 2017 decreased to $7.6 million compared to $10.7 million in the six months ended June 30, 2016.

QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The selected financial information provided below is derived from our unaudited quarterly financial statements for each of the last eight quarters.

(Amounts in 000's except for per common share data)	**Q2 June 30, 2017**	**Q1 Mar 31, 2017**	**Q4 Dec 31, 2016**	**Q3 Sept 30, 2016**	**Q2 June 30, 2016**	**Q1 Mar 31, 2016**	**Q4 Dec 31, 2015**	**Q3 Sept 30, 2015**
Revenue	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Research and development expense	1,462	2,295	2,550	2,164	3,293	2,315	2,340	1,722
General and administrative expense	1,833	2,101	1,461	1,932	2,343	2,608	2,364	2,248
Net loss	(3,241)	(4,355)	(3,926)	(4,017)	(5,612)	(5,072)	(4,431)	(3,261)
Basic and diluted net loss per share	$ (0.15)	$ (0.25)	$ (0.26)	$ (0.31)	$ (0.46)	$ (0.42)	$ (0.38)	$ (0.27)
Cash (used in) operating activities	$ (3,571)	$ (3,515)	$ (3,984)	$ (3,277)	$ (4,648)	$ (4,523)	$ (3,619)	$ (2,567)

Changes in research and development expenses follow the activities and stages of development of the Company's programs. Specific activities or events that had significant impacts on the costs incurred for individual periods are as follows: In the three months ended June 30, 2016 and the follow on quarters up to and including the three months ended December 31, 2016, research and development expenses increased due to the costs associated with the quality, manufacturing and formulation work to resolve the clinical hold of the APTO-253 trial previously described herein, as well as costs related to a new program, a collaboration agreement with LALS/Moffitt. In the three months ended June 30, 2016, there is a further increase in expenses due to the $1.294 million option fee paid to CG as previously described herein. For the three months ended March 31, 2017, cost savings from the cancellation of the LALS/Moffitt program are offset by increased costs related to the CG'806 program. For the three months ended June 30, 2017 there are further savings related to lower expense on the APTO-253 program related to the Company's decision to refocus its resources towards CG'806.

Changes in general and administrative costs over time result mostly from changes in headcount, foreign exchange, the granting of stock options and decisions by the Company to engage in certain corporate projects. Specific activities that had significant impacts on the expenses incurred for individual periods are as follows: The increase in the three months ended March 31, 2016 is due to our US dollar expenses and payroll costs which were more costly due to the devaluation of the Canadian dollar over that time period. The decrease in general and administrative costs in the three months ended September 30, 2016, is primarily due to lower stock-based compensation expense and the completion of certain projects. The decrease in administrative costs in the three months ended December 31, 2016, was mainly due to the reversal of previously recognized bonus accruals. The expenses for the three months ended March 31, 2017, are comparable with the expenses recorded in the three months ended September 30, 2016. Expenses are slightly higher in the three months ended March 31, 2017 as a result of higher salaries related to severance payments, which will result in savings in future quarters as reflected in the reduced expenses reported for the three months ended June 30, 2017.

Cash used in operating activities fluctuates primarily as a result of changes in amounts of expenses incurred and the timing of payments.

USE OF PROCEEDS

The following table provides an update on the anticipated use of proceeds raised in the December 2013 and April 2014 equity offerings along with amounts actually expended.

As of June 30, 2017, the following expenditures have been incurred:

(in thousands)	Previously disclosed	Total spent
Phase 1b clinical trial	$ 3,350	$ 3,567
Depending on the Phase 1b clinical trial of APTO-253 results, fund single agent expansion and drug combination focused Phase 2 Trials in both AML and MDS patients	7,800	nil
APTO-253 manufacturing program, including root cause and CAPA studies	2,250	3,969
Research and development programs	2,000	4,666
General and corporate purposes	15,869	19,067
	$ 31,269	**$ 31,269**

In accordance with our recent decision to prioritize our resources toward the development of CG'806 and to temporarily delay clinical activities with APTO-253, anticipated use of proceeds for APT-253 was reallocated to the CG'806 development plans and to determine root cause analysis of manufacturing concerns for APTO-253 and for general corporate purposes.

The Company has other cash available to fund future operations as a result of other capital raises for which no allocation was stipulated.

RELATED PARTY TRANSACTIONS

In March 2015, the Company entered into an agreement with the Moores Cancer Center at the University of California San Diego (UCSD) to provide pharmacology lab services to the Company. Dr. Stephen Howell is the Acting Chief Medical Officer of Aptose and is also a Professor of Medicine at UCSD and will be overseeing the laboratory work. The research services were provided for an annual fee of US$154,456 to be paid to UCSD in monthly installments. This research services agreement was approved by the Aptose Board of Directors on February 23, 2016, for an additional 12 month period beginning April 1, 2016 and for an annual fee of up to US$200,000. In May 2017, the Company entered into another agreement with UCSD for an additional twelve month period for an annual fee of US$300,000. 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.

Contractual Obligations and Off-Balance Sheet Financing

At June 30, 2017, we had contractual obligations requiring annual payments as follows:

	Less than 1 year	1 - 3 years	3 - 5 years	Total
Operating leases	$ 362	$ 526	$ nil	$ 888

The Company has entered into various contracts with service providers with respect to the clinical development of APTO-253 and for its CG'806 development program. These contracts will result in future payments commitments of up to $936 thousand.

As at June 30, 2017, we have not entered into any off-balance sheet arrangements other than the operating leases for our offices and labs and certain office equipment.

FINANCIAL INSTRUMENTS

(a) Financial instruments

(in thousands)	June 30, 2017	December 31, 2016
Financial assets:		
Cash and cash equivalents, consisting of high interest savings accounts, treasury bill and short term bankers' acceptance), measured at amortized cost	$ 10,297	$ 10,662
Investments, consisting of fixed income securities), measured at amortized cost	3,874	-
Financial liabilities:		
Accounts payable and accrued liabilities, measured at amortized cost	1,308	1,770

At June 30, 2017, there are no significant differences between the carrying values of these amounts and their estimated market values due to their short-term nature.

(b) Financial risk management

We have exposure to credit risk, liquidity risk and market risk. Our Board of Directors has the overall responsibility for the oversight of these risks and reviews our policies on an ongoing basis to ensure that these risks are appropriately managed.

(i) Credit risk

Credit risk is the risk of financial loss to us if a customer, partner or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from our cash and cash equivalents and investments. The carrying amount of the financial assets represents the maximum credit exposure.

We manage credit risk for our cash and cash equivalents and investments by maintaining minimum standards of R1-low or A-low investments and we invest only in highly rated Canadian corporations with debt securities that are traded on active markets and are capable of prompt liquidation.

(ii) Liquidity risk

Liquidity risk is the risk that we will not be able to meet our financial obligations as they come due. To the extent that we do not believe we have sufficient liquidity to meet our current obligations, the Board considers securing additional funds through equity or debt transactions. We manage our liquidity risk by continuously monitoring forecasts and actual cash flows. All of our financial liabilities are due within the current operating period.

In managing its liquidity risk, the Company has considered its available cash and cash equivalents and has reprioritized its resources towards the development of CG'806. The Company has also considered additional cash raised through its ATM Facility for net proceeds of $10.98 million (US$ 8.2 million) in the six months ended June 30, 2017, and its ability to continue to raise funds under this facility in 2017 in assessing whether it will have sufficient resources to fund research and development operations through to at least the twelve month period ending June 30, 2018.

After considering the above factors, management has concluded that there are no material uncertainties related to events or conditions that may cast substantial doubt upon the Company's ability to continue as a going concern. However, the estimates made by management in reaching this conclusion are based on information available as of the date of this MD&A. Accordingly, actual experience will differ from those estimates and the variation may be material

(iii) Market risk

Market risk is the risk that changes in market prices, such as interest rates, foreign exchange rates and equity prices will affect our income or the value of our financial instruments.

We are subject to interest rate risk on our cash and cash equivalents however we do not believe that the results of operations or cash flows would be affected to any significant degree by a sudden change in market interest rates relative to interest rates on the investments, owing to the relative short-term nature of the investments. We do not have any material interest bearing liabilities subject to interest rate fluctuations.

Currency risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. We are exposed to currency risk from employee costs as well as the purchase of goods and services in Canada and the cash balances held in foreign currencies. Fluctuations in the Canadian dollar exchange rate could potentially have an impact on the Company's results. Assuming all other variables remain constant, a 10% depreciation or appreciation of the Canadian dollar against the US dollar would result in an increase or decrease in loss for the three months ended and comprehensive loss of $153 thousand. Balances in foreign currencies at June 30, 2017, are as follows:

(in thousands)		**Balances at June 30, 2017**		Balances at December 31, 2016
Cash and cash equivalents	**$**	**1,946**	$	2,867
Accounts payable and accrued liabilities		**(260)**		(275)
	$	**1,686**	$	2,592

The Company does not have any forward exchange contracts to hedge this risk.

The Company does not invest in equity instruments of other corporations.

(c) Capital management

Our primary objective when managing capital is to ensure that we have sufficient cash resources to fund our development activities and to maintain our ongoing operations. To secure the additional capital necessary to pursue these plans, we may attempt to raise additional funds through the issuance of equity or by securing strategic partners.

We include cash and cash equivalents and investments in the definition of capital.

We are not subject to externally imposed capital requirements and there has been no change with respect to the overall capital risk management strategy during the three months ended June 30, 2017.

OUTLOOK

Until one of our drug candidates receives regulatory approval and is successfully commercialized, Aptose will continue to incur operating losses. The magnitude of these operating losses will be largely affected by the timing and scope of future research and development, clinical trials and the Company's ability to raise additional and ongoing working capital and/or establish effective partnerships to share the costs of development and clinical trials.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision with respect to our common shares, you should carefully consider the following risk factors, in addition to the other information included or incorporated by reference into the most recently filed annual information form, as well as our historical consolidated financial statements and related notes. Management has reviewed the operations of the Company in conjunction with the Board of Directors and identified the following risk factors which are monitored on a bi-annual basis and reviewed with the Board of Directors. The risks set out below are not the only risks we face. If any of the following risks occurs, our business, financial condition, prospects or results of operations and cash flows would likely suffer. In that case, the trading price of our common shares could decline and you may lose all or part of the money you paid to buy our common shares.

Please refer to our MD&A and annual information form for the year ended December 31, 2016 for a complete discussion of risks and uncertainties.

We are at an early stage of development. Significant additional investment will be necessary to complete the development of any of our products to approval.

- We need to raise additional capital. Due to our lack of product revenues, we have an ongoing need to raise additional capital. To obtain the necessary capital, we must rely on some or all of the following: additional share issuances, debt issuances, collaboration agreements or corporate partnerships and grants and tax credits to provide full or partial funding for our activities. Additional funding may not be available on terms that are acceptable to us or in amounts that will enable us to carry out our business plan.
- We have a history of operating losses. We expect to incur net losses and we may never achieve or maintain profitability.
- Clinical trials are long in duration, expensive and uncertain processes and the FDA may ultimately not approve any of our product candidates. We may never develop any commercial drugs or other products that generate revenues.
- We may not achieve our projected development goals in the time frames we announce and expect.
- Delays in clinical testing could result in delays in commercializing our product candidates and our business may be substantially harmed.
- We rely on contract manufacturers over whom we have limited control. If we are subject to quality, cost or delivery issues with the preclinical and clinical grade materials supplied by contract manufacturers, our business operations could suffer significant harm.
- If we have difficulty enrolling patients in clinical trials, the completion of the trials may be delayed or cancelled.
- If we are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience significant delays in doing so, we may not achieve marketing approval or realize the full commercial potential of our therapeutic product candidates.
- We rely and will continue to rely on third parties to conduct and monitor many of our preclinical studies and our clinical trials, and their failure to perform as required could cause substantial harm to our business.
- We heavily rely on the capabilities and experience of our key executives and scientists and the loss of any of them could affect our ability to develop our products.
- Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on our business.
- We may expand our business through the acquisition of companies or businesses or by entering into collaborations or by in-licensing product candidates, each of which could disrupt our business and harm our financial condition.
- Negative results from clinical trials or studies of others and adverse safety events involving the targets of our products may have an adverse impact on our future commercialization efforts.
- As a result of intense competition and technological change in the biotechnical and pharmaceutical industries, the marketplace may not accept our products or product candidates, and we may not be able to compete successfully against other companies in our industry and achieve profitability.
- We may be unable to obtain patents to protect our technologies from other companies with competitive products, and patents of other companies could prevent us from manufacturing, developing or marketing our products.
- Our products and product candidates may infringe the intellectual property rights of others, or others may infringe on our intellectual property rights which could increase our costs.
- We may incur substantial cost in defending our intellectual property.
- If product liability, clinical trial liability or environmental liability claims are brought against us or we are unable to obtain or maintain product liability, clinical trial or environmental liability insurance, we may incur substantial liabilities that could reduce our financial resources.
- We may be unable to obtain partnerships for one or more of our product candidates, which could curtail future development and negatively impact our share price. In addition, our partners might not satisfy their contractual responsibilities or devote sufficient resources to our partnership.
- We may be exposed to fluctuations of the US dollar against certain other currencies because we hold most of our cash and cash equivalents in US dollars, while we incur some of our expenses in foreign currencies, primarily the Canadian dollar. Fluctuations in the value of currencies could cause us to incur currency exchange losses.

- We are subject to extensive government regulation.
- Our share price has been and may continue to be volatile and an investment in our common shares could suffer a decline in value.
- Future sales of our common shares by us or by our existing shareholders could cause our share price to fall.
- We are susceptible to stress in the global economy; therefore, our business may be affected by the current and future global financial condition.
- There is no assurance that an active trading market in our common shares will be sustained.
- It may be difficult for non-Canadian investors to obtain and enforce judgments against us because of our Canadian incorporation and presence.
- We are likely a "passive foreign investment company" which may have adverse U.S. federal income tax consequences for U.S. shareholders.
- We are an "emerging growth company," and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make our common shares less attractive to investors.
- Any failure to maintain an effective system of internal controls may result in material misstatements of our consolidated financial statements or cause us to fail to meet our reporting obligations or fail to prevent fraud; and in that case, our shareholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our common shares.
- As a foreign private issuer, we are not subject to certain United States securities law disclosure requirements that apply to a domestic United States issuer, which may limit the information, which would be publicly available to our shareholders.

EVALUATION OF DISCLOSURE CONTROLS AND INTERNAL CONTROLS

There have been no changes in the Company's internal control over financial reporting that occurred during the three months ended June 30, 2017, that have materially affected or are reasonably likely to materially affect the Company's internal controls over financial reporting. As of June 30, 2017, the Company's management has assessed the effectiveness of our internal control over financial reporting and disclosure controls and procedures using the Committee of Sponsoring Organizations of the Treadway Commission's 2013 framework. Based on their evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that these controls and procedures are effective.

UPDATED SHARE INFORMATION

As at August 8, 2017, we had 24,027,754 common shares issued and outstanding. In addition there were 2,327,548 common shares issuable upon the exercise of outstanding stock options.

ADDITIONAL INFORMATION

Additional information relating to Aptose, including Aptose' December 31, 2016 annual report on form 20-F and other disclosure documents, are available on EDGAR at www.sec.gov/edgar.shtml and on SEDAR at www.sedar.com.

Exhibit 99.3

FORM 52-109F2
CERTIFICATION OF INTERIM FILINGS– FULL CERTIFICATE

I, William G. Rice, Chairman, President and Chief Executive Officer of Aptose Biosciences Inc. certify the following:

1. ***Review:*** I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Aptose Biosciences Inc. (the "issuer") for the interim period ended June 30, 2017.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.

4. ***Responsibility:*** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. ***Design:*** Subject to the limitations, if any described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the end of the period covered by the interim filings

   (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

      (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared;

      (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

   (b) designed ICFR, or caused it 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 the issuer's GAAP.

5.1 ***Control framework:*** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

5.2 ***ICFR -- material weakness relating to design:*** N/A

5.3 ***Limitation on scope of design:*** N/A

6. ***Reporting changes in ICFR:*** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on April 1, 2017 and ended on June 30, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: August 8, 2017

/s/ William G. Rice
William G. Rice
Chairman, President and Chief Executive Officer

FORM 52-109F2
CERTIFICATION OF INTERIM FILINGS– FULL CERTIFICATE

I, Gregory K. Chow, Senior Vice President and Chief Financial Officer of Aptose Biosciences Inc. certify the following:

1. ***Review:*** I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of Aptose Biosciences Inc. (the "issuer") for the interim period ended June 30, 2017.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.

4. ***Responsibility:*** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. ***Design:*** Subject to the limitations, if any described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the end of the period covered by the interim filings

   (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that

      (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared;

      (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

   (b) designed ICFR, or caused it 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 the issuer's GAAP.

5.1 ***Control framework:*** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

5.2 ***ICFR -- material weakness relating to design:*** N/A

5.3 ***Limitation on scope of design:*** N/A

6. ***Reporting changes in ICFR:*** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on April 1, 2017 and ended on June 30, 2017 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: August 8, 2017

/s/ Gregory K. Chow
Gregory K. Chow
Senior Vice President and Chief Financial Officer