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

FORM 40-F

(Check One)

[ ] Registration statement pursuant to Section 12 of the Securities Exchange Act of 1934

or

[X] Annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended **December 31, 2017**

Commission file number **001-32001**

Aptose Biosciences Inc.

(Exact name of registrant as specified in its charter)

Canada	**2836**	**98-1136802**
(Province or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number (if applicable))	(I.R.S. Employer Identification Number (if Applicable))

5955 Airport Road, Suite #228
Mississauga, Ontario L4V 1R9
Canada
(647) 479-9829
(Address and Telephone Number of Registrant's Principal Executive Offices)

Aptose Biosciences U.S. Inc.
12770 High Bluff Drive, Suite 120
San Diego, California 92130
(858) 926-2730
(Name, Address (Including Zip Code) and Telephone Number
(Including Area Code) of Agent For Service in the United States)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	**Name of each exchange on which registered**
Common Shares, no par value	**The NASDAQ Capital Market**

Securities registered or to be registered pursuant to Section 12(g) of the Act.**None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.**None**

For annual reports, indicate by check mark the information filed with this Form:

[X] Annual Information Form [X] Audited Annual Financial Statements

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 27,502,053

Indicate by check mark whether the Registrant by filing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934 (the "Exchange Act"). If "Yes" is marked, indicate the file number assigned to the Registrant in connection with such Rule.

Yes___ No X

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days.

Yes X No___

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 12b-2 of the Exchange Act.

Emerging growth company X

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

Principal Documents

The following documents, filed as Exhibits 99.1, 99.2 and 99.3 to this Annual Report on Form 40-F (this "Annual Report") of Aptose Biosciences Inc. ("we", "us", "our", "Aptose" or the "Company"), are hereby incorporated by reference into this Annual Report:

(a) Annual Information Form for the fiscal year ended December 31, 2017;

(b) Management's Discussion and Analysis for the fiscal year ended December 31, 2017; and

(c) Audited Consolidated Financial Statements for the fiscal year ended December 31, 2017. Aptose's Audited Consolidated Financial Statements included in this Annual Report have been prepared in accordance with International Financial Reporting Standards, as issued by the International Accounting Standards Board. Therefore, they are not comparable in all respects to financial statements of United States companies that are prepared in accordance with United States generally accepted accounting principles.

ADDITIONAL DISCLOSURE

Certifications and Disclosure Regarding Controls and Procedures.

(a) Certifications. See Exhibits 99.4, 99.5, 99.6 and 99.7 to this Annual Report on Form 40-F.

(b) Disclosure Controls and Procedures. As of the end of Aptose's fiscal year ended December 31, 2017, an evaluation of the effectiveness of Aptose's "disclosure controls and procedures" (as such term is defined in Rules 13a-15(e) and 15d-15(e) of the United States Securities Exchange Act of 1934, as amended (the "Exchange Act")) was carried out by Aptose's management, with the participation of its principal executive officer and principal financial officer. Based upon that evaluation, Aptose's principal executive officer and principal financial officer have concluded that as of the end of that fiscal year, Aptose's disclosure controls and procedures are effective to ensure that information required to be disclosed by Aptose in reports that it files or submits under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission (the "Commission") rules and forms and (ii) accumulated and communicated to Aptose's management, including its principal executive officer and principal financial officers, to allow timely decisions regarding required disclosure.

It should be noted that while Aptose's principal executive officer and principal financial officer believe that Aptose's disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect that Aptose's disclosure controls and procedures or internal control over financial reporting will prevent all errors or fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

(c) Management's Annual Report on Internal Control Over Financial Reporting. The required disclosure is included under the heading "Evaluation of Disclosure Controls and Internal Controls" in our Management's Discussion and Analysis for the fiscal year ended December 31, 2017 filed as Exhibit 99.2 to this Annual Report on Form 40-F.

(d) Attestation Report of the Registered Public Accounting Firm. We are not required to include an attestation report of Aptose's independent registered public accounting firm regarding internal control over financial reporting in this Annual Report because emerging growth companies are exempt from this requirement for so long as they remain emerging growth companies. Therefore, management's report on internal control over financial reporting is not subject to attestation by our independent registered public accounting firm.

(e) Changes in Internal Control Over Financial Reporting. During the fiscal year ended December 31, 2017, no changes were made in Aptose's internal control over financial reporting that have materially affected or are reasonably likely to materially affect Aptose's internal control over financial reporting

Notices Pursuant to Regulation BTR

None.

Audit Committee Financial Expert

Our board of directors has determined that Mr. Warren Whitehead, a director of Aptose and the chairman of the Audit Committee, possesses the attributes required of an "audit committee financial expert," and is "independent," within the meaning of applicable NASDAQ Capital Market rules ("NASDAQ").

Code of Ethics

We adopted a Code of Ethics that meets the definition of a "code of ethics" set forth in Form 40-F, and that applies to all of Aptose's officers, directors, employees and consultants.

A copy of the code of ethics is available on our website at www.aptose.com or, without charge, upon written request from our Vice President of Finance at our offices located at 5955 Airport Road, Suite #228, Mississauga, Ontario L4V 1R9, Canada. There were been any amendments to, or waivers, including implicit waivers, granted from, any provision of the Code of Ethics during the twelve months ended December 31, 2017.

Principal Accountant Fees and Services

The required disclosure is included under the heading "*External Auditor Service Fees* " in our Annual Information Form for the fiscal year ended December 31, 2017, filed as Exhibit 99.1 to this Annual Report.

Pre-Approval Policies and Procedures.

(a) Aptose's audit committee pre-approves all audit and non-services provided to Aptose by its external auditor, KPMG LLP. Also see "Audit Committee Mandate − Pre-Approval Policies and Procedures" in our Annual Information Form for the fiscal year ended December 31, 2017, filed as Exhibit 99.1 to this Annual Report on Form 40-F.

(b) Of the fees reported in Exhibit 99.1 to this Annual Report on Form 40-F under the heading "*External Auditor Service Fees"*, none of the fees billed by KPMG LLP were approved by the chair of our audit committee pursuant to the *de minimis* exception provided by Section (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

Off-Balance Sheet Arrangements

Aptose does not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on its financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

Tabular Disclosure of Contractual Obligations

The following table sets forth our known contractual obligations as at December 31, 2017:

		Payments due by period			
Contractual Obligations	**Total**	**Less than 1 Year**	**1-3 Years**	**3-5 Years**	**More than 5 years**
Long-Term Debt Obligations	-	-	-	-	-
Capital (Finance) Lease Obligations	-	-	-	-	-
Operating Lease Obligations	$ 1,357	$ 225	$ 410	$ 433	$ 289
Purchase Obligations	-	-	-	-	-
Other Long-Term Liabilities Reflected on Aptose's Balance Sheet	-	-	-	-	-
Total	$ 1,357	$ 225	$ 410	$ 433	$ 289

Identification of the Audit Committee.

We have a separately designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. The members of the audit committee are Denis R. Burger, Brad Thompson, and Warren Whitehead.

NASDAQ Statement of Governance Differences.

As a Canadian corporation listed on NASDAQ, we are not required to comply with certain NASDAQ corporate governance standards. Section 5615(a)(3) of the NASDAQ Marketplace Rules permits NASDAQ to grant exemptions to a foreign private issuer for certain provisions of the Rule 5600 series and Rule 5250(d). We are organized under the laws of Canada and our common shares are listed for trading on the TSX. We comply with the laws of Canada and rules and regulations of the TSX, including rules related to corporate governance practices. A description of the significant ways in which our governance practices differ from those followed by domestic companies pursuant to the NASDAQ Marketplace Rules is as follows:

Shareholder Meeting Quorum Requirement: The NASDAQ minimum quorum requirement for a shareholder meeting under Section 5620(c) of the NASDAQ Marketplace Rules is one-third of the outstanding shares of common stock. In addition, a company listed on NASDAQ is required to state a quorum requirement in its bylaws. Our quorum requirement is set forth in our corporate bylaws. A quorum for our shareholder meeting is not less than 25% of the outstanding shares of the Corporation entitled to be voted at such meeting present or by means of a telephonic, electronic or other communication facility that permits all participants to communicate adequately with each other during the meeting and each entitled to vote at the meeting.

Compensation Committee Mandate: NASDAQ required compliance with the revised Rule 5605(d) for all companies following the company's first annual meeting occurring after January 15, 2014, or October 31, 2014, whichever is earlier. In our case, this was following our August 19, 2014 annual general and special meeting. The changes to the rule include requiring the mandate of the compensation committee to include accountability to external advisors. Our compensation committee mandate does not currently include such requirements.

Shareholder Approval Exemption: Rule 5635 of the NASDAQ Marketplace Rules sets forth circumstances under which shareholder approval is required prior to certain types of security issuances. Pursuant to the NASDAQ Marketplace Rules, a company must receive prior shareholder approval for transactions involving the sale or issuance of a company's common stock (or securities convertible into or exercisable for its common stock): (i) at a price below the greater of book value or market value; and (ii) which together with sales by officers, directors, or substantial stockholders, is equal to 20% or more of the company's outstanding shares of common stock or 20% or more of the voting power prior to issuance. We received an exemption from this 20% threshold requirement from NASDAQ on October 27, 2017 in connection with our common shares Purchase Agreement with Aspire Capital Fund, LLC. In the event of an issuance meeting the criteria set forth above, we are not required to seek prior shareholder approval.

The foregoing is consistent with the laws, customs and practices in Canada and the rules of the TSX.

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

A. Undertaking.

We undertake to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to: the securities registered pursuant to Form 40-F; the securities in relation to which the obligation to file an annual report on Form 40-F arises; or transactions in said securities.

B. Consent to Service of Process.

We have concurrently filed a Form F-X in connection with the class of securities in relation to which the obligation to file this report arises.

Any change to the name or address of our agent for service shall be communicated promptly to the Commission by an amendment to the Form F-X referencing our file number.

SIGNATURES

Pursuant to the requirements of the Exchange Act, the registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this annual report to be signed on its behalf by the undersigned, thereunto duly authorized, on March 27, 2018.

Aptose Biosciences Inc.

By: /s/ William G. Rice
Name: William G. Rice, Ph.D.
Title: Chairman, President and Chief Executive Officer

EXHIBIT INDEX

Exhibit	Description
99.1	Annual Information Form for the fiscal year ended December 31, 2017
99.2	Management's Discussion and Analysis for the fiscal year ended December 31, 2017
99.3	Audited Consolidated Financial Statements for the fiscal year ended December 31, 2017
99.4	Certification of Chief Executive Officer pursuant to Rule 13a-14 or 15d-14 of the Securities Exchange Act of 1934
99.5	Certification of Chief Financial Officer pursuant to Rule 13a-14 or 15d-14 of the Securities Exchange Act of 1934
99.6	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350
99.7	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350
99.8	Consent of KPMG LLP
101	Interactive Data Files

Exhibit 99.1

ANNUAL INFORMATION FORM

FOR THE YEAR ENDED DECEMBER 31, 2017

March 27, 2018

CONTENTS

I. INTRODUCTION AND FORWARD-LOOKING STATEMENTS

The information contained in this Annual Information Form is stated as at December 31, 2017, unless otherwise indicated. If the context otherwise requires or unless otherwise indicated, “Aptose”, the “Company”, “we”, “us” and “our” refer collectively to Aptose Biosciences Inc., 5955 Airport Road Suite #228, Mississauga, Ontario, Canada, L4V 1R9, and to its subsidiaries, Aptose Biosciences U.S. Inc., Aptose Suisse GmbH and NuChem Pharmaceuticals Inc.

Unless otherwise indicated, all dollar amounts are expressed in US dollars and references to “$” are US dollars.

Certain statements in this Annual Information Form (“AIF”) may constitute “forward-looking” statements which involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. When used in this AIF, such statements use such words as “anticipate”, “contemplate”, “continue”, “believe”, “plan”, “estimate”, “expect”, “intend”, “will”, “should”, “may”, “hope” and other similar terminology. These statements reflect current expectations regarding future events and operating performance and speak only as of the date of this AIF. Forward-looking statements include, among others:

- 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 and maintain 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 ability to accrue appropriate numbers and types of patients;
- our ability to file and maintain intellectual property to protect our pharmaceutical assets;
- 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 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 revenue;
- 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 reliance on external contract research/manufacturing organizations for certain activities;
- 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;
- our business is subject to potential product liability and other claims;
- potential exposure to legal actions and potential need to take action against other entities;
- our ability to maintain adequate insurance at acceptable costs;
- further equity financing may substantially dilute the interests of our shareholders;
- 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 ("SEC"), and those which are discussed under the heading "Risk Factors and Uncertainties" 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 and Uncertainties" 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 AIF, and we do not intend, and do not assume any obligation, to update these forward-looking statements, except as required by law. Such statements may not 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. New factors emerge from time to time, and it is not possible for management of the Company to predict all of these factors or to assess in advance the impact of each such factor on the Company's business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement.

II. CORPORATE STRUCTURE

Lorus Therapeutics Inc. ("Old Lorus") was incorporated on September 5, 1986 under the name RML Medical Laboratories Inc. pursuant to the*Business Corporations Act* (Ontario). On October 28, 1991, RML Medical Laboratories Inc. amalgamated with Mint Gold Resources Ltd., resulting in Old Lorus becoming a reporting issuer (as defined under applicable securities law) in Ontario, on such date. On August 25, 1992, Old Lorus changed its name to IMUTEC Corporation. On November 27, 1996, Old Lorus changed its name to Imutec Pharma Inc., and on November 19, 1998, Old Lorus changed its name to Lorus Therapeutics Inc. On October 1, 2005, Old Lorus continued under the *Canada Business Corporations Act.*

On July 10, 2007 (the "Arrangement Date"), Old Lorus completed a plan of arrangement and corporate reorganization with, among others, 6650309 Canada Inc. ("New Lorus"), 6707157 Canada Inc. and Pinnacle International Lands, Inc. As a result of the plan of arrangement and reorganization, each common share of Old Lorus was exchanged for one common share of New Lorus and the assets (excluding certain deferred tax assets) and liabilities of Old Lorus (including all of the shares of its subsidiaries) were transferred, directly or indirectly, to New Lorus and/or its subsidiaries. New Lorus continued the business of Old Lorus after the Arrangement Date with the same officers and employees and continued to be governed by the same board of directors as Old Lorus prior to the Arrangement Date.

On August 28, 2014, New Lorus changed its name from Lorus Therapeutics Inc. to Aptose Biosciences Inc. and on October 1, 2014 we consolidated our outstanding common shares (the "Common Shares") on the basis of one post-consolidation Common Share for each twelve pre-consolidation Common Shares.

The address of the Company's head and registered office is 5955 Airport Road Suite #228, Mississauga, Ontario, Canada, L4V 1R9 and our phone number is (647) 479-9828. Our corporate website is www.aptose.com. The contents of the website and items accessible through the website are specifically not incorporated in this AIF by reference.

Aptose has three subsidiaries: Aptose Biosciences U.S. Inc. ("Aptose USA"), a company incorporated under the laws of Delaware, USA, Aptose Suisse GmbH ("Aptose Suisse") a company incorporated under the laws of the canton of Zug, Switzerland and NuChem Pharmaceuticals Inc. ("NuChem"), a company incorporated under the laws of Ontario, Canada. Aptose owns 100% of the issued and outstanding voting share capital of Aptose USA and Aptose Suisse and 80% of the issued and outstanding voting share capital of NuChem.

III. THE COMPANY

Aptose is a science-driven biotechnology company advancing highly differentiated agents to treat unmet medical needs in life-threatening cancers, such as acute myeloid leukemia ("AML"), high-risk myelodysplastic syndromes ("MDS") and other hematologic malignancies. Based on insights into the genetic and epigenetic profiles of certain cancers and patient populations, Aptose is building a pipeline of novel and targeted oncology therapies directed at dysregulated processes and signaling pathways in cancer cells, and this strategy is intended to optimize efficacy and quality of life by minimizing the cytotoxic side effects associated with conventional therapies. Our product pipeline includes cancer drug candidates that exert potent activity as stand-alone agents and that enhance the activities of other anticancer agents without causing overlapping toxicities. Indeed, we believe our targeted products can emerge as first-in-class or best-in-class agents that deliver single agent benefit and may serve as part of a combination therapeutic strategy for specific populations of cancer patients.

We believe the future of cancer treatment and management lies in the prospective selection and treatment of patients having malignancies that are genetically or epigenetically predisposed to response based on a drug's unique mechanism of action. We are of the view that many drugs currently approved for the treatment and management of cancer are not selective for the specific genetic alterations (targets) that cause the patient's tumor and hence lead to significant toxicities due to off-target effects. Aptose's strategy is to develop agents that target underlying disease-promoting mutations or altered pathways within a patient population, and we intend to apply this strategy across several therapeutic indications in oncology, including hematologic malignancies and solid tumor indications.

Aptose has one clinical-stage program, one late-preclinical program, and a third program that is discovery-stage and partnered with another company. CG026806 ("CG'806"), Aptose's pan-FLT3 / pan-Bruton's tyrosine kinase ("BTK") inhibitor, is currently in late preclinical development and moving toward investigational new drug ("IND") submission. Development of CG'806 is intended for the treatment of patients with relapsed / refractory AML and patients having certain B-cell malignancies. APTO-253 is Aptose's second program and at the Phase 1b clinical stage for the treatment of patients with relapsed / refractory blood cancers, including AML and high-risk MDS under an IND allowed by the United States Food and Drug Administration ("FDA") to evaluate APTO-253 as a therapeutic agent dosed on a weekly administration schedule for the treatment of certain hematologic malignancies. The APTO-253 program is currently on clinical hold and awaiting a new clinical batch of drug product to be manufactured and released.

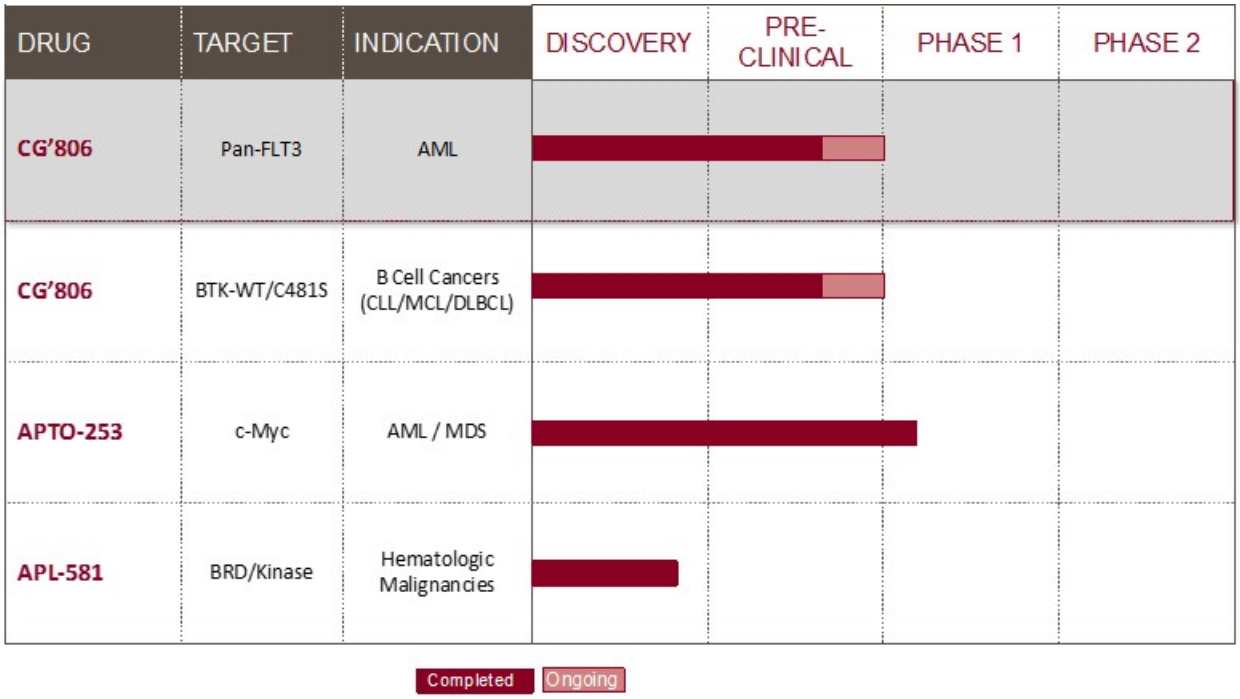
Aptose's leadership team comprises accomplished industry, financial and clinical research professionals who are dedicated to building a comprehensive anticancer drug pipeline and clinical development programs focused on targeted therapeutics directed against dysregulated oncogenic processes in patients with life-threatening hematologic malignancies.

The common shares of the Company are currently listed on the NASDAQ Capital Market ("NASDAQ") under the symbol "APTO" and on the Toronto Stock Exchange ("TSX") under the symbol "APS".

Products

As noted above, Aptose is committed to the development of anticancer drugs that target aberrant oncologic signaling that underlie a particular life-threatening malignancy. This targeted approach is intended to impact the disease-causing events in cancer cells without affecting normal processes within cells. Such an approach requires that we first identify critical underlying oncogenic mechanisms in cancer cells and then develop a therapeutic that selectively impacts such oncogenic mechanisms. As a multi-kinase pan-FLT3 / BTK inhibitor, CG'806 targets multiple critical pathways that overlap to lead to the proliferation of cancer cells, including the B-cell receptor signaling pathway and FLT3 receptor pathways that converge at various points in the signaling cascade. Further, Aptose created the APTO-253 small molecule targeted drug that inhibits expression of the c-Myc oncogene and is under development as a novel therapy for AML and the related MDS.

The following table sets forth various product conditions in our pipeline and their respective stages of development.



CG'806

Overview

In June 2016, we announced a definitive agreement with South Korean company CrystalGenomics, Inc. ("CG"), granting us an exclusive option to research, develop and commercialize 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 AML and certain B cell malignancies because of its actions as a pan-FLT3/pan-BTK inhibitor. We paid $1.0 million to CG to acquire the option. Should we elect to exercise the option, upon exercise, we would pay an additional $2.0 million 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 IND application with the FDA, (ii) first dosage of a human in a clinical trial or (iii) 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 BTK and its C481S mutant ("BTK-C481S"). Consequently, CG'806 is characterized as a pan-FLT3/pan-BTK inhibitor. Further, CG'806 suppresses a small group of other relevant oncogenic kinases/pathways (including CSF1R, Aurora kinases ("AURK"), TRK, and the AKT and ERK pathways) that are operative in AML and certain B cell malignancies, but does not inhibit the TEC, EGFR and ErbB2/4 kinases that are responsible for safety concerns with certain other kinase inhibitors.

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, thereby potentially allowing the agent to become an important therapeutic option for a broader group of this difficult-to-treat AML patient population. The findings that CG'806 targets all forms of FLT3 and several other key oncogenic pathways, and that CG'806 was well tolerated from a safety perspective during efficacy studies, suggest that CG'806 may also have applicability in treating patients, particularly those over the age of 65, who cannot tolerate other therapies.

Separate from the AML and FLT3 story, overexpression of the BTK enzyme can drive oncogenic signaling 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 3.4 years of therapy. Discontinuation of ibrutinib is due to the development of drug resistance (in particular, patients have malignancies that developed the BTK-C481S mutation), or due to refractory disease (patient tumors did not respond to ibrutinib) or intolerance (side effects led to discontinuation of ibrutinib), according to a study performed at The Ohio State University. The C481S mutation is observed in 5-10% of the patients, while 40-45% of the patients were intolerant or refractory to ibrutinib. 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 (with wild type and C481S BTK) demonstrated that CG'806 binds productively to the BTK active site in a manner that is indifferent to the presence or absence of mutations at the 481 residue. Moreover, in vitro studies demonstrated that CG'806 kills B cell malignancy cell lines on average approximately 1500 times more potently than ibrutinib, and CG'806 demonstrated a high degree of safely in animal efficacy studies. Consequently, patients who are resistant, 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/pathways that drive the survival and proliferation of B cell malignancies

Role of BTK in B-cell signaling

BTK, a member of the TEC family kinase, is an essential element of B-cell receptor ("BCR") signaling, which is required for B-cell maturation, survival and proliferation. It is an upstream activator of multiple pro-survival / anti-apoptotic pathways, including the NF-KB, mTOR-AKT and ERK pathways. BTK is overexpressed in malignant cells from patients with various B-cell malignancies, such as CLL, MCL, AML, and DLBCL. Disruption of BCR signaling via inhibition of BTK, has been shown to lead to clinical remissions in these patients.

CG'806 as a Non-covalent, Reversible Kinase Inhibitor

Binding studies of CG'806 have confirmed non-covalent, reversible inhibition of BTK, FLT3-ITD and Aurora Kinase A. Commercially-approved, covalent BTK inhibitors possess a Michael acceptor to react with C481 in BTK and irreversibly inactivate the BTK enzyme. In contrast, CG'806 does not require reactivity with the C481 residue for inhibition of the BTK enzyme, thereby allowing CG'806 to inhibit the wild type and C481 mutant form of the BTK enzyme.

Preclinical In Vitro Evaluation of CG'806

CG'806 is a potent inhibitor of BTK and FLT3 wild types, as well as the BTK C481S and FLT3-ITD mutants, which represent major sources of therapy relapse or are negative prognostic signals in patients. In enzymatic assays, CG'806 has demonstrated potency against the BTK C481S mutant with an IC50 of 2.5 nM. CG'806 also has potent activity against the FLT-ITD mutation, occurring in 30-35% of AML patients, with an IC50 against the purified enzyme of 0.8 nM (800pM). Likewise, CG'806 exerts low nM IC50 values against the FLT3 enzyme having various mutations in the tyrosine kinase domain (TKD) and the Gatekeeper region. Similarly, CG'806 demonstrated picomolar potency against Aurora A (IC50 0.4 nM). Notably, CG'806 is a potent inhibitor of interleukin-2-inducible T-cell kinase ("ITK"), at approximately 4 nM. ITK is speculated to play a role in suppressing activated T-cell function, hence inhibition of ITK alleviates this suppression, and provides for a potential immunomodulatory anti-tumor mechanism. Finally, CG'806 does not exhibit any inhibition of epidermal growth factor receptor ("EGFR"), TEC or ErbB2/4 kinases. Inhibition of one or more of these kinases has been speculated to contribute to the toxicity observed from the commercially approved BTK inhibitor.

BTK is overexpressed in the blast cells of approximately 80% of AML patients as compared to normal peripheral blood mononuclear cells (PBMCs) in healthy subjects. Researchers have shown that BTK inhibition attenuates the proliferation and survival of FLT3-ITD primary AML blasts and AML cell lines, as well as inhibits the downstream activation of FLT3-ITD-dependent Myc and STAT5 kinases. We believe that CG'806 is the only drug in development that inhibits both FLT3-ITD and BTK pathways reported to synergize to drive the proliferation and survival of AML.

CG'806 Xenograft Studies

In vivo subcutaneous AML tumor models of anti-cancer efficacy revealed CG'806 induced rapid and sustained tumor eradication (Figure 1). CG'806 was administered orally once daily, for 14 days. Moreover, CG'806 exhibited the sustained tumor elimination post therapy, while demonstrating no impact to murine body weight, no impacts to hematology cell counts or visible organ toxicities – necropsy and clinical pathology findings did not reveal any abnormal observations. A maximum tolerated dose has not yet been identified with murine xenograft studies, having been performed up to 450 mg/kg orally for 14 days (CG preliminary toxicity data).

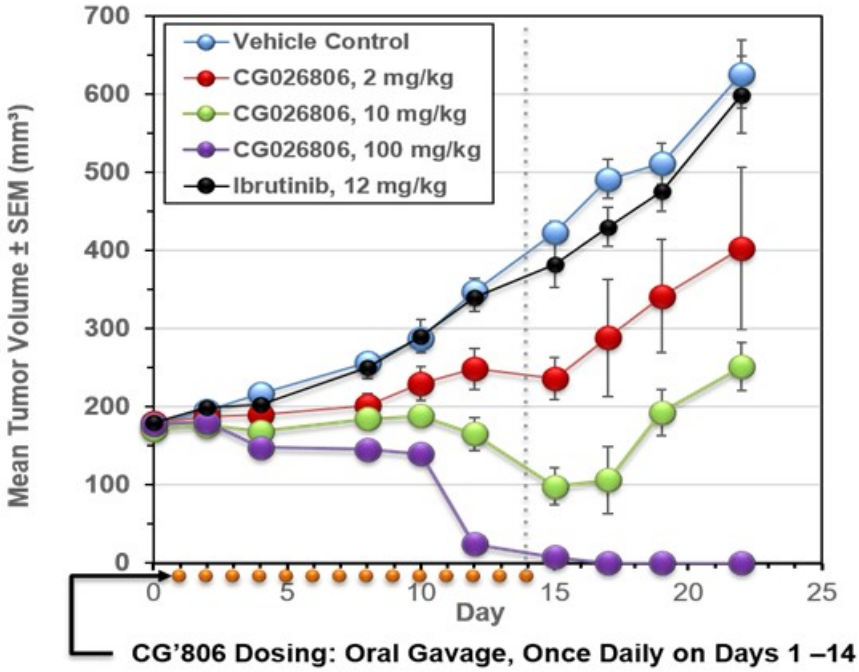


Figure 1. Efficacy of CG'806 in MV4-11 xenograft model.

MV4-11 tumor bearing mice were administered an oral suspension once daily for 14 days of CG'806 at 2 mg/kg (blue line), 10 mg/kg (green line) or 100 mg/kg (red line), Ibrutinib, 12 mg/kg (turquoise line), or vehicle (Control; black line) with 7-day post-treatment follow-up. Tumor volumes and body weights were measured 3 times weekly.

CG'806 Intellectual Property

A Patent Cooperation Treaty (PCT) application providing composition of matter and use protection for CG'806 was filed in late 2013, with a potential expiry in 2033 before extension opportunities, across all major geographies.

CG'806 Manufacturing and Preclinical Progress

We have invested significant time, effort and capital to create a scalable chemical 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. Our efforts to develop the scalable chemical synthetic route have taken longer than anticipated and thus pushed the timeline for the IND submission and initiation of the first-in-human Phase I clinical trial further into the future than we had originally anticipated. We now have solved the synthetic route, can scale the manufacture of API, and now have manufactured and delivered a batch of API which was used for Dose Range Finding Studies that were performed and completed in early January, 2018. Currently we are manufacturing a multi-kg batch of GLP grade API (drug substance) for use in GLP toxicology studies. We also reported that we selected the oral formulation that we intend to take into the GLP toxicology studies and the first-in-human clinical trials. In addition, R&D funds are being utilized to support exploratory formulation studies in an ongoing effort to craft superior formulations for CG'806. Provided we are able to manufacture CG'806 for both the non-clinical (GLP) studies and clinical trial, complete the non-clinical studies, and receive a favorable approval from the FDA on our IND submission and continue on the anticipated timeline, we expect to initiate a first-in-human Phase I clinical trial by late 2018. The total direct costs of such activities and to reach the submission of the IND are currently expected to range between US$3 million and US$4.5 million. However any interruptions or additional studies in these activities could cause a delay in the anticipated commencement of the Phase I trial. 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 (likely CLL). As clinical trials are lengthy, complex, costly, and uncertain processes, an estimate of the future costs is not reasonable at this time.

Developments in 2017

On January 23, 2017, we announced that we would prioritize our resources toward the development of CG'806 and temporarily delay clinical activities with APTO-253, in order to elucidate the cause of recent manufacturing setbacks related to the intravenous formulation of APTO-253, with the intention of restoring the molecule to a state supporting clinical development and partnering. Although we have two compelling cancer drugs, resources could support the full development activities of only one at this time. Recent advances with CG'806 elevated this agent as having the best risk-reward profile to pursue with those resources. Such data established CG'806 as a well-differentiated pan-FLT3 inhibitor that demonstrates tumor eradication in the absence of toxicity in AML xenograft models, and it is on track for development as a therapy for certain AML patients. In addition, CG'806 is a potent non-covalent inhibitor of proliferation among certain BTK-driven B-cell derived cancer cells. The encouraging properties of CG'806, including its potency against well-established targets in diseases of severe medical need, warrant expeditious advancement and prioritization of resources toward this molecule.

On May 7, 2017, we presented preclinical data for our pan-FLT3/pan-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, our 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, our 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.

In September 2017 the USPTO informed us that the patent has been awarded. The patent 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.

On December 11, 2017 at the American Society of Hematology Annual Meeting, we presented with the OHSU Knight Cancer Institute preclinical data demonstrating that CG'806, a pan-FLT3/pan-BTK inhibitor, has broad and potent drug activity against AML, CLL and other hematologic disease subtypes. We also announced the presentation of preclinical data from research led by The University of Texas MD Anderson Cancer Center demonstrating that CG'806 exerts a profound anti-leukemia effect in human and murine leukemia cell lines harboring FLT-3 ITD mutations, mutations that are usually associated with very poor prognoses in leukemia patients. In addition, CG'806 induces apoptosis, or programmed cell death, in AML patient samples by multiple mechanisms and is able to overcome resistance that is seen with other FLT3 inhibitors. The data were highlighted in poster presentations on December 10 and 11, 2017 at the American Society of Hematology Annual Meeting.

On December 26, 2017, we announced that the FDA has granted orphan drug designation to CG'806 for the treatment of patients with AML. Orphan drug designation is granted by the FDA to encourage companies to develop therapies for the treatment of diseases that affect fewer than 200,000 individuals in the United States. Orphan drug status provides research and development tax credits, an opportunity to obtain grant funding, exemption from FDA application fees and other benefits. If CG'806 is approved to treat AML, the orphan drug designation provides Aptose with seven years of marketing exclusivity.

On March 15, 2018, we announced two abstracts related to the mechanistic properties of CG'806 in AML cells and in B cell malignancy cells have been accepted for poster presentations at the upcoming 2018 Annual Meeting of the American Association for Cancer Research (AACR).

APTO-253

Overview

APTO-253, the Company's second program, is a novel small molecule therapeutic agent that inhibits expression of the c-Myc oncogene, leading to cell cycle arrest and programmed cell death (apoptosis) in human-derived solid tumor and hematologic cancer cells, without causing general myelosuppression of the healthy bone marrow. The c-Myc oncogene is overexpressed in hematologic cancers, including AML. C-Myc is a transcription factor that regulates cell growth, proliferation, differentiation and apoptosis, and overexpression amplifies new sets of genes to promote oncogenesis. APTO-253 dramatically down-regulates expression of the c-Myc oncogene in AML cells and depletes those cells of the c-Myc oncoprotein, leading to apoptotic cell death in AML cells. Thus APTO-253 may serve as safe and effective c-Myc inhibitor for AML that combines well with other agents and does not impact the normal bone marrow.

APTO-253 was being evaluated by us in a Phase Ib clinical trial in patients with relapsed / refractory hematologic malignancies, particularly AML and MDS before being placed on clinical hold by the FDA in November 2015. If and when the APTO-253 clinical trial is re-initiated, upon completion of the dose-escalation stage of the study and determination of the appropriate dose, the plan would be 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 Ib study, combination of APTO-253 with a standard therapy would be considered.

As previously disclosed, the Phase Ib trial was placed on clinical hold in order to solve a chemistry-based formulation issue, and the chemistry of the API and the formulation had undergone minor modifications to deliver a stable and soluble drug product for return to the clinical setting. In December 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, the 40L batch that was the intended clinical supply encountered an unanticipated mishap during the filling process that compromised the stability of that batch of drug product. On January 23, 2017, we announced that the root cause and corrective action 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 manufacturing setback, with the intention of restoring the molecule to a state supporting clinical development and partnering. Formal root cause analyses studies have now been completed and have identified the reason for the drug product stability failure, and we have established a corrective and prevention action plan for the manufacture of future batches of drug product. Given these findings, we have manufactured a new GMP clinical supply of drug product and are in the process of performing studies required to demonstrate the fitness of the drug product for clinical usage, and then we plan to present the findings to the FDA in the second quarter of 2018 with the hope of having the clinical hold removed by the end of the second quarter of 2018 and returning APTO-253 to the clinical trial soon thereafter. The total direct costs of such activities to reach the presentation of the findings to the FDA are currently expected to range between US$1 million and US$1.5 million. Investors are cautioned that there can be no assurance that the FDA will remove the clinical hold.

In the event the clinical hold is removed by the FDA, based on our current estimates and the information available to us at this time, we expect to complete the clinical drug product manufacture, initiate studies to investigate additional drug delivery methods for APTO-253 and to initiate additional non-clinical studies for solid tumor and hematologic development. As preparing, submitting, and advancing applications for regulatory approval, developing drugs and drug product and clinical trials are sometimes complex, costly, and time consuming processes, an estimate of the future costs is not reasonable at this time.

Solid Tumors

In January 2011, Aptose announced the first patient enrolment in a Phase I dose-escalation study for APTO-253 in patients with advanced or metastatic solid tumors who are unresponsive to conventional therapy or for which no effective therapy is available. The study was initially being conducted at Memorial Sloan-Kettering Cancer Center in New York. Objectives of the study included determination or characterization of the safety profile, maximum tolerated dose, and antitumor activity of APTO-253, as well as pharmacokinetics and a recommended Phase II dose for subsequent clinical trials.

In June 2012, MD Anderson Cancer Center in Houston was added as a second site under the direction of Dr. Jennifer Wheler as the principal investigator. In addition, Aptose announced that the study had successfully completed the accelerated drug dose escalation stage (Stage 1), with further escalation under way in the non-accelerated dose escalation stage (Stage 2) for the purpose of determining the maximal tolerated dose level and recommended Phase II dose. The addition of a second site expanded patient availability for enrollment.

In January 2013, Aptose announced that Phase I clinical study of APTO-253 has successfully escalated to the target dose level based on predicted and observed clinical effects without limitation by toxicity. The success of this study allowed Aptose to initiate a biomarker clinical investigation to further explore the effects of the drug at relevant doses determined in the clinical trial.

In April 2013, Aptose announced that studies demonstrated the antitumor activity of APTO-253 in animal models of human NSCLC with a dose-response effect in NSCLC.

In July 2013, Aptose announced the results of the Phase 1 clinical trial of APTO-253. In this first-in-man dose-escalation clinical study, APTO-253 demonstrated a favorable safety profile, as well as encouraging signs of antitumor activity. The design of this trial consisted of APTO-253 as a single agent in patients with advanced solid tumors resistant to multiple standard therapies. The study enrolled 27 patients, all of which had failed a median of four prior chemotherapies. Although this was primarily a dose-escalation safety study, efficacy and pharmacokinetics were also explored.

The clinical trial enrolled patients at seven dose levels ranging from 20 to 229 mg/m2. Of the 27 patients enrolled, 17 were evaluable for efficacy. Of these 17 patients, seven (41%) achieved stable disease by Response Evaluation Criteria In Solid Tumors (“RECIST”). This included patients with colorectal, lung, appendiceal, liver and uterine cancers. Dose related activity was demonstrated at the higher dose levels (176 and 229 mg/m2). At these two highest dose levels, four of five evaluable patients (80%) achieved sustained stable disease by RECIST ranging from 5.6 months to 8 months, representative of disease control. Of these, a patient with non-small cell lung cancer at the highest dose level additionally demonstrated non-index tumor shrinkage.

The safety assessment indicated that APTO-253 was well tolerated at all dose levels tested in this trial. The dose escalation was not limited by toxicity. The most common adverse event was Grade 1 or 2 fatigue seen in three patients. There was one Grade 3 toxicity, asymptomatic low blood phosphate level that was reversible by supplementation with phosphates. The pharmacokinetic profile was consistent with the predictive profile seen preclinically, and the elimination profile and half-life in patients were suggestive of a very rapid distribution phase and prolonged retention.

Multi-Targeting Bromodomain Program

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

In January 2017, Aptose terminated the collaboration with Moffitt for the development of the dual BRD4 / JAK2 inhibitor program.

Multi-Targeting Epigenetic Program

In November 2015, Aptose announced an exclusive drug discovery partnership with Laxai Avanti Life Sciences ("LALS") for their expertise in next generation epigenetic-based therapies. Under the agreement, LALS was to be responsible for developing multiple clinical candidates, including optimizing candidates that exert dual BRD4 / kinase inhibitory activity. Based on available resources, Aptose halted further investment in the collaboration with LALS in late 2016. However, the program delivered novel intellectual property and hit molecules for further optimization. As a consequence, Aptose may choose to out-license the program.

On March 7, 2018, we entered into an exclusive global license agreement with Ohm Oncology ("OHM"), an affiliate of LALS that was formed in 2016 to advance the clinical development of compelling molecules derived from the LALS initiative, for the development, manufacture and commercialization of APL-581, as well as related molecules from Aptose's dual bromodomain and extra-terminal domain motif (BET) protein and kinase inhibitor program. Under the agreement, Aptose will retain reacquisition rights to certain molecules, while OHM/LALS will have the rights to develop and sublicense all other molecules. Aptose will receive a nominal upfront cash payment and is eligible to receive up to $125 million of additional payments based on the achievement of certain development, regulatory and sales milestones, as well as significant royalties on future sales generated from the program, if any.

Clinical Indications for Aptose Programs

Acute Myeloid Leukemia

AML is a rapidly progressing cancer of the blood and bone marrow characterized by the uncontrolled proliferation of dysfunctional myeloblasts that do not mature into healthy blood cells. It is the most common form of acute leukemia in adults. The American Cancer Society estimates [there will be] approximately 19,520 new cases of AML and approximately 10,670 deaths from AML in the United States in 2018. [Standard induction therapy with chemotherapy is successful in many AML patients, but the majority of these patients will relapse with treatment refractory disease. The average age of a patient with AML is 67 years. Approximately 48% patients less than age 60, and 34% of patients greater than or equal to age 60, with residual disease after induction therapy will achieve a remission, as reported by Datamonitor Healthcare.

Myelodysplastic Syndromes

MDS are a group of blood and bone marrow disorders. In MDS, stem cells do not mature normally, and the number of blasts (immature cells) and dysplastic (abnormally developed) cells increases. Also, the number of healthy mature cells decreases, meaning there are fewer normal red blood cells, white blood cells, and platelets. The numbers of blood cells are often called blood cell counts. Because of the decrease in healthy cells, people with MDS often have anemia (a lowered blood cell count), and may have neutropenia (a low white blood cell count) and thrombocytopenia (a low platelet count). Also, the chromosomes (long strands of genes) in the bone marrow cells may be abnormal. According to the American Cancer Society, there are approximately 13,000 new cases of MDS annually in the United States. Additionally, Datamonitor Healthcare reports median survival in higher risk MDS patients may range between five months and two years. There are several subtypes of MDS, and some subtypes of MDS may eventually turn into AML.

Specialized Skill and Knowledge

The business of the Company requires personnel with specialized skills and knowledge in oncology. Researchers must be able to design and implement studies to assess the efficacy of anticancer drugs. Specialized knowledge and skills relating to chemistry and formulation process development are also needed. Such knowledge and skills are needed to develop product specific analytical methods and formulation processes. The Company's business also requires clinical and regulatory expertise and knowledge. The Company has trained scientists and personnel with broad experience in these fields.

Competitive Conditions

The biotechnology and pharmaceutical industries are characterized by rapidly evolving technology and intense competition. There are numerous companies in these industries that are focusing their efforts on activities similar to ours. Some of these are companies with established positions in the pharmaceutical industry and may have substantially more financial and technical resources, more extensive research and development capabilities, and greater marketing, distribution, production and human resources than Aptose. In addition, we face competition from other companies for opportunities to enter into partnerships with biotechnology and pharmaceutical companies and academic institutions.

Competition with our potential products may include chemotherapeutic agents, monoclonal antibodies, antisense therapies, small molecules, immunotherapies, vaccines and other biologics with novel mechanisms of action. These drugs may kill cancer cells indiscriminately, or through a targeted approach, and some have the potential to be used in non-cancer indications. We also expect that we will experience competition from established and emerging pharmaceutical and biotechnology companies that have other forms of treatment for the cancers that we target, including drugs currently in development for the treatment of cancer that employ a number of novel approaches for attacking these cancer targets. Cancer is a complex disease with more than 100 indications requiring drugs for treatment. The drugs in competition with our potential drugs have specific targets for attacking the disease, targets which are not necessarily the same as ours. These competitive drugs, however, could potentially also be used together in combination therapies with our drugs to manage the disease. Other factors that could render our potential products less competitive may include the stage of development, where competitors' products may achieve earlier commercialization, as well as superior patent protection, better safety profiles, or a preferred cost-benefit profile.

Components

Standard raw materials, component parts, and products required by the Company in pursuing its activities are supplied from reputable companies active in the biotechnology industry. Pricing is predictable as there are many alternatives of such supplies that are readily available.

Intangible Properties

We believe that our issued patents and pending applications are important in establishing and maintaining a competitive position with respect to our products and technology.

As of March 27, 2018, we are the owner of record of 6 issued U.S. patents, which together provide coverage for the APTO-253 compound, it's pharmaceutical composition and methods of treating various cancers with APTO-253, including solid tumors and leukemia. The APTO-253 ccomposition of matter patent expires in 2028 in the United States and 2026 in other countries. We also hold 17 international (non-U.S.) patents which together provide coverage for APTO-253, three of which are issued European patents, validated in at least eight countries in Europe. Our patents also include several compounds that are similar to APTO-253, which provide protection from competitors seeking to develop anticancer products that are related in chemical structure to APTO-253.

On September 12, 2017, we announced that United States Patent and Trademark Office ("USPTO") has issued a patent (number 9,758,508) entitled "2,3-dihydro-isoindole-1-on derivative as BTK kinase suppressant, and pharmaceutical composition including same". The patent claims numerous compounds, including the CG'806 compound, pharmaceutical compositions comprising the CG'806 compound, and methods of treating various diseases. The patent is expected to provide protection until December of 2033.

Environmental Protection

The Company's research and development activities involve the controlled use of hazardous and radioactive materials and, accordingly, the Company is subject to federal, provincial and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. To the knowledge of the Company, compliance with such environmental laws and regulations does not and will not have any significant impact on its capital spending, profits or competitive position within the normal course of its operating activities. There can be no assurance, however, that the Company will not be required to incur significant costs to comply with environmental laws and regulations in the future or that its operations, business or assets will not be materially adversely affected by current or future environmental laws or regulations.

Employees

As at December 31, 2017, we employed 18 full-time persons and 2 part-time persons in research and drug development and administration activities. Four of our employees hold Ph.D.'s and numerous others hold degrees and designations such as MSc, BSc, CPA (CA), CPA (California) and MBA. To encourage a focus on achieving long-term performance, employees and members of the board of directors of the Company (the "Board") have the ability to acquire an ownership interest in the Company through Aptose's share option and alternate compensation plans.

None of our employees are unionized, and we consider our relations with our employees to be good.

Government Regulation

Overview

Our overall regulatory strategy is to work with the appropriate government departments which regulate the use and sale of therapeutic drug products. This includes Health Canada in Canada, the FDA in the United States, the European Medicines Agency in Europe, and other local regulatory agencies with oversight of preclinical studies, clinical trials and marketing of therapeutic products. Where possible, we intend to take advantage of opportunities for accelerated development of drugs designed to treat rare and serious or life-threatening diseases. We also intend to pursue priority evaluation of any application for marketing approval filed in Canada, the United States or the European Union and to file additional drug applications in other markets where commercial opportunities exist. We may not be able to pursue these opportunities successfully.

Regulation(s) by government authorities in Canada, the United States, and the European Union are significant factors in guiding our current research and drug development activities. To clinically test, manufacture and market drug products for therapeutic use, we must be in compliance with guidance and regulations established by the regulatory agencies in the countries in which we currently operate or intend to operate.

The laws of most of these countries require the licensing of manufacturing facilities, carefully controlled research and the extensive testing of products. Biotechnology companies must establish the safety and efficacy of their new products in clinical trials; they must establish and comply with current GMP(s) for the manufacturing of the product and control over marketing activities before being allowed to market a product. The safety and efficacy of a new drug must be shown through human clinical trials of the drug carried out in accordance with the guidance and regulations established by local and federal regulatory agencies.

The process of completing clinical trials and obtaining regulatory approval for a new drug takes a number of years and requires the expenditure of substantial resources. Once a new drug or product license application is submitted, regulatory agencies may not review the application in a timely manner and may not approve the product. Even after a New Drug Application ("NDA") submission has occurred and/or approval has been obtained, further studies, including post-marketing studies, may be required to provide additional data on efficacy and safety necessary to confirm the approved indication or to gain approval for the use of the new drug as a treatment for clinical indications other than those for which the new drug was initially tested. Also, regulatory agencies require post-marketing surveillance programs to monitor a new drug's side effects, safety and long term effects of the product. A serious safety or effectiveness problem involving an approved new drug may result in a regulatory agency mandating a withdrawal of the new drug from the market and possible civil action. It is possible that we could encounter such difficulties or excessive costs in our efforts to secure necessary approvals, which could delay or prevent us from manufacturing or marketing our products.

In addition to the regulatory product approval framework, biotechnology companies, including Aptose, are subject to regulation under local, provincial, state and federal law, including requirements regarding occupational safety, laboratory practices, environmental protection and hazardous substance control, and may be subject to other present and future local, provincial, state, federal and foreign regulation, including possible future regulation of the biotechnology industry.

Regulation in Canada

In Canada, the manufacture and sale of new drugs are controlled by Health Canada. New drugs must pass through a number of testing stages, including pre-clinical testing and human clinical trials. Pre-clinical testing involves testing the new drug's chemistry, pharmacology and toxicology *in vitro* and *in vivo*. Successful results (that is, potentially valuable pharmacological activity combined with an acceptable low level of toxicity) enable the developer of the new drug to file a clinical trial application to begin clinical trials involving humans.

To study a drug in Canadian patients, a clinical trial application submission must be filed with Health Canada. The clinical trial application submission must contain specified information, including the results of the pre-clinical tests completed at the time of the submission and any available information regarding use of the drug in humans. In addition, since the method of manufacture may affect the efficacy and safety of a new drug, information on manufacturing methods and standards and the stability of the drug substance and dosage form must be presented. Production methods and quality control procedures must be in place to ensure an acceptably pure product, essentially free of contamination, and to ensure uniformity with respect to all quality aspects.

In addition, all federally regulated trials must be approved and monitored by an independent committee of doctors, scientists, advocates and others to ensure safety and ethical standards. These committees are called Institutional Review Boards ("IRBs") or Ethics Review Boards ("ERBs"). The review boards study and approve all study-related documents before a clinical trial begins and also carefully monitor data to detect benefit or harm, and validity of results.

Provided Health Canada does not reject a clinical trial application submission and IRB or ERB approval has been obtained, clinical trials can begin. Clinical trials for product candidates in Canada, as in the United States, are generally carried out in three phases. Phase I involves studies to evaluate toxicity and ideal dose levels in healthy humans. The new drug is administered to human patients who have met the clinical trial entry criteria to determine pharmacokinetics, human tolerance and prevalence of any adverse side effects. Phases II and III involve therapeutic studies. In Phase II, efficacy, dosage, side effects and safety are established in a small number of patients who have the disease or disorder that the new drug is intended to treat. In Phase III, there are controlled clinical trials in which the new drug is administered to a large number of patients who are likely to receive benefit from the new drug. In Phase III, the effectiveness of the new drug in patients is compared to that of standard accepted methods of treatment in order to provide sufficient data for the statistical proof of safety and efficacy for the new drug.

If clinical studies establish that a new drug has value, the manufacturer submits a new drug submission application to Health Canada for marketing approval. The new drug submission contains all information known about the new drug, including the results of pre-clinical testing and clinical trials. Information about a substance contained in new drug submission includes its proper name, its chemical name, and details on its method of manufacturing and purification, and its biological, pharmacological and toxicological properties. The new drug submission also provides information about the dosage form of the new drug, including a quantitative listing of all ingredients used in its formulation, its method of manufacture, manufacturing facility information, packaging and labelling, the results of stability tests, and its diagnostic or therapeutic claims and side effects, as well as details of the clinical trials to support the safety and efficacy of the new drug. Furthermore, for biological products, an on-site evaluation is completed to assess the production process and manufacturing facility. It is required prior to the issuance of a notice of compliance. All aspects of the new drug submission are critically reviewed by Health Canada. If a new drug submission is found satisfactory, a notice of compliance is issued permitting the new drug to be sold for the approved use. In Canada, an establishment license must be obtained prior to marketing the product.

Health Canada has a policy of priority evaluation of new drug submissions for all drugs intended for serious or life-threatening diseases for which no drug product has received regulatory approval in Canada and for which there is reasonable scientific evidence to indicate that the proposed new drug is safe and may provide effective treatment.

The monitoring of a new drug does not cease once it is on the market. For example, a manufacturer of a new drug must report any new information received concerning serious side effects, as well as the failure of the new drug to produce desired effects. If Health Canada determines it to be in the interest of public health, a notice of compliance for a new drug may be suspended and the new drug may be removed from the market.

A post surveillance program involves clinical trials conducted after a drug is marketed (referred to as Phase IV studies in the United States) and is an important source of information on as yet undetected adverse outcomes, especially in populations that may not have been involved in the premarketing trials (e.g., children, the elderly, pregnant women) and the drug's long-term morbidity and mortality profile. Regulatory authorities may require companies to conduct Phase IV studies as a condition of market approval. Companies often conduct post-marketing studies in the absence of a regulatory mandate.

An exception to the foregoing requirements relating to the manufacture and sale of a new drug is the limited authorization that may be available in respect of the sale of new drugs for emergency treatment. Under the special access program, Health Canada may authorize the sale of a quantity of a new drug for human use to a specific practitioner for the emergency treatment of a patient under the practitioner's care. Prior to authorization, the practitioner must supply Health Canada with information concerning the medical emergency for which the new drug is required, such data as is in the possession of the practitioner with respect to the use, safety and efficacy of the new drug, the names of the institutions at which the new drug is to be used and such other information as may be requested by Health Canada. In addition, the practitioner must agree to report to both the drug manufacturer and Health Canada the results of the new drug's use in the medical emergency, including information concerning adverse reactions, and must account to Health Canada for all quantities of the new drug made available.

The Canadian regulatory approval requirements for new drugs outlined above are similar to those of other major pharmaceutical markets. While the testing carried out in Canada is often acceptable for the purposes of regulatory submissions in other countries, individual regulatory authorities may request supplementary testing during their assessment of any submission. Therefore, the clinical testing conducted under Health Canada authorization or the approval of regulatory authorities of other countries may not be accepted by regulatory authorities outside Canada or other countries.

Regulation in the United States

In the United States, the FDA controls and investigates the investigation, manufacturing, and sale of new drugs. New drugs require FDA approval of a NDA prior to commercial sale. In the case of certain biological products, a Biological License Application ("BLA") must be obtained prior to marketing and batch releasing. As in Canada, to obtain marketing approval, data from adequate and well-controlled human clinical trials, demonstrating to the FDA's satisfaction a new drug's safety and effectiveness for its intended use, are required. Data are generated in studies conducted pursuant to an IND submission, similar to that required for a clinical trial application in Canada. Clinical trials with human subjects are characterized as Phase I, Phase II and Phase III trials or a combination thereof. In a marketing application, the manufacturer must also demonstrate the identity, potency, quality and purity of the active ingredients of the new drug involved, and the stability of those ingredients. Further, the manufacturing facilities, equipment, processes and quality controls for the new drug must comply with the FDA's current **[Good Manufacturing Practice]** regulations for drugs or biological products both in a pre-licensing inspection before product licensing and in subsequent periodic inspections after licensing. An establishment license grants the sponsor permission to fabricate, package, label, distribute, import, wholesale or test of the newly approved drug.

Federally regulated trials must be approved and monitored by an independent committee of doctors, scientists, advocates and others to ensure safety and ethical standards. These committees are called IRBs or ERBs. The review boards study and approve all study-related documents before a clinical trial begins and also carefully monitor data to detect benefit or harm, and validity of results.

The above describes briefly what is necessary for a new drug to be approved for marketing in North America. The European Medicines Agency and Japanese Pharmaceuticals and Medical Devices Agency are also important regulatory authorities in drug development. Together with the FDA, they are the three International Conference on Harmonization parties which oversee the three largest markets for drug sales.

Financings

In October 2017, we entered into a Common Shares Purchase Agreement (the "Purchase Agreement") with Aspire Capital Fund, LLC ("Aspire Capital") to sell up to US $15.5 million of common shares to Aspire Capital. Under the terms of the Purchase Agreement, Aspire Capital has made an initial purchase of 357,143 common shares at a price of $1.40 per share, representing gross proceeds of approximately $500,000 ($324,000 net of share issue costs). Under the terms of the Purchase Agreement, Aspire Capital has committed to purchase up to an aggregate of $15.0 million of our common shares, at our request from time to time during a 30-month period beginning on the effective date of a registration statement related to the transaction and at prices based on the market price at the time of each sale. Under terms of the Purchase Agreement, we also issued 321,429 common shares to Aspire Capital as consideration for Aspire Capital entering into the Purchase Agreement. Subsequent to the year end, we issued an additional 3.2 million common shares under the Purchase agreement for gross proceeds of approximately $8.9 million.

We intend to use this equity arrangement as an additional option to assist us in achieving our capital objectives. The equity line provides us with the opportunity to regularly raise capital at prevailing market prices, at our sole discretion providing us with the ability to better manage our cash resources.

IV. Risk Factors and Uncertainties

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. Additional risks not currently known by us or that we consider immaterial at the present time may also impair our business, financial condition, prospects or results of operations. If any of the following risks occur, our business, financial condition, prospects or results of operations would likely be materially adversely affected. 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. The risks set out below are not the only risks and uncertainties we currently face; other risks may arise in the future.

Risks Related to our Business

We are an early stage development company.

We are at an early stage of development. In the past five years, none of our potential products has obtained regulatory approval for commercial use and sale in any country and as such, no significant revenues have resulted from product sales. Significant additional investment will be necessary to complete the development of any of our product candidates. Preclinical and clinical trial work must be completed before our potential products could be ready for use within the markets that we have identified. We may fail to develop any products, obtain regulatory approvals, enter clinical trials or commercialize any products. We do not know whether any of our potential product development efforts will prove to be effective, meet applicable regulatory standards, obtain the requisite regulatory approvals, be capable of being manufactured at a reasonable cost or be accepted in the marketplace. We also do not know whether sales, license fees or related royalties will allow us to recoup any investment we make in the commercialization of our products.

The product candidates we are currently developing are not expected to be commercially viable for at least the next several years and we may encounter unforeseen difficulties or delays in commercializing our product candidates. In addition, our potential products may not be effective or may cause undesirable side effects.

Our product candidates require significant funding to reach regulatory approval assuming positive clinical results. For example, our product candidate APTO-253 began enrolment in a Phase I clinical trial in patients with relapsed or refractory hematologic malignancies and was placed on clinical hold by the FDA following a voluntary suspension of dosing by us. We are currently working with the FDA to have such hold lifted**,** but significant additional funding or a partnership will be necessary to complete a restarted Phase I clinical and, if required, Phase II or Phase III clinical trials. Such funding for our product candidates may be difficult, or impossible to raise in the public or private markets or through partnerships. If funding or partnerships are not readily attainable, the development of our product candidates may be significantly delayed or stopped altogether. The announcement of a delay or discontinuation of development would likely have a negative impact on our share price.

We need to raise additional capital.

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 issues, debt issuances (including promissory notes), 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.

Our need for capital may require us to:

- engage in equity financings that could result in significant dilution to existing investors;
- delay or reduce the scope of or eliminate one or more of our development programs;
- obtain funds through arrangements with collaborators or others that may require us to relinquish rights to technologies, product candidates or products that we would otherwise seek to develop or commercialize ourselves;
- license rights to technologies, product candidates or products on terms that are less favourable to us than might otherwise be available;
- considerably reduce operations; or
- cease our operations.

We have a history of operating losses. We expect to incur net losses and we may never achieve or maintain profitability.

We have not been profitable since our inception in 1986. We reported net losses of $11.7 million in the fiscal year ended December 31, 2017, $14.2 million in the fiscal year ended December 31, 2016, $11.7 million in the fiscal year ended December 31, 2015, and as of December 31, 2017, we had an accumulated deficit of $247 million.

We have not generated any significant revenue to date and it is possible that we will never have sufficient product sales revenue (if any) to achieve profitability. We expect to continue to incur losses for at least the next several years as we or our collaborators and licensees pursue clinical trials and research and development efforts. To become profitable, we, either alone or with our collaborators and licensees, must successfully develop, manufacture and market our current product candidates APTO-253 or CG'806 as well as continue to identify, develop, manufacture and market new product candidates. It is possible that we will never have significant product sales revenue or receive royalties on our licensed product candidates. If funding is insufficient at any time in the future, we may not be able to develop or commercialize our products, take advantage of business opportunities or respond to competitive pressures.

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.

Clinical trials are long, expensive and uncertain processes and the FDA or Health Canada may ultimately not approve any of our product candidates. We may never develop any commercial drugs or other products that generate revenues.

In the past five years, none of our product candidates has received regulatory approval for commercial use and sale in North America. We cannot market a pharmaceutical product in any jurisdiction until it has completed thorough preclinical testing and clinical trials in addition to that jurisdiction's extensive regulatory approval process. Approval in one country does not assure approval in another country. In general, significant research and development and clinical studies are required to demonstrate the safety and effectiveness of our product candidates before we can submit any regulatory applications.

Clinical trials are long, expensive and uncertain processes. Clinical trials may not be commenced or completed on schedule and the FDA or Health Canada or any other regulatory body may not ultimately approve our product candidates for commercial sale. The clinical trials of any of our drug candidates could be unsuccessful, which would prevent us from advancing, commercializing or partnering the drug.

Even if the results of our preclinical studies or clinical trials are initially positive, it is possible that we will obtain different results in the later stages of drug development or that results seen in clinical trials will not continue with longer term treatment. Positive results in Phase I clinical trials may not be repeated in larger Phase II or Phase III clinical trials.

Our preclinical studies and clinical trials may not generate positive results that will allow us to move towards the commercial use and sale of our product candidates. Furthermore, negative preclinical or clinical trial results may cause our business, financial condition, or results of operations to be materially adversely affected. For example, our Phase Ib clinical trial of APTO-253 in patients with AML was placed on clinical hold by the FDA in November 2015 and since that time the Company has encountered manufacturing setbacks which have further delayed the return of APTO-253 to the clinic. There can be no assurance that the clinical hold will be lifted by the FDA, that the Company will have the resources, or that we will decide, to continue the development of APTO-253. Even if the Phase Ib of APTO-253 is continued, there is a long development path ahead that will take many years to complete and is prone to the risks of failure or delays inherent in drug development. Likewise, our CG'806 product candidate has not yet entered clinical trials and it is expected to undergo many years of testing and regulatory examinations prior to any potential regulatory approvals.

Preparing, submitting and advancing applications for regulatory approval is complex, expensive and time intensive and entails significant uncertainty. A commitment of substantial resources to conduct time-consuming research, preclinical studies and clinical trials is required if we are to complete development of our products.

Clinical trials of our products require that we identify and enroll a large number of patients with the illness under investigation. We may not be able to enroll a sufficient number of appropriate patients to complete our clinical trials in a timely manner, particularly in smaller indications and indications where there is significant competition for patients. If we experience difficulty in enrolling a sufficient number of patients to conduct our clinical trials, we may need to delay or terminate ongoing clinical trials and will not accomplish objectives material to our success. Delays in planned patient enrolment or lower than anticipated event rates in our current clinical trials or future clinical trials also may result in increased costs, program delays, or both.

In addition, unacceptable toxicities or adverse side effects may occur at any time in the course of preclinical studies or human clinical trials or, if any product candidates are successfully developed and approved for marketing, during commercial use of any approved products. The appearance of any unacceptable toxicities or adverse side effects could interrupt, limit, delay or abort the development of any of our product candidates or, if previously approved, necessitate their withdrawal from the market. Furthermore, disease resistance or other unforeseen factors may limit the effectiveness of our potential products.

Our failure to develop safe, commercially viable drugs would substantially impair our ability to generate revenues and sustain our operations and would materially harm our business and adversely affect our share price.

We may not achieve our projected development goals in the time frames we announce and expect.

We set goals for, and make public statements regarding, the expected timing of the accomplishment of objectives material to our success, such as the submission of IND, the commencement and completion of clinical trials and the expected costs to develop our product candidates. The actual timing and costs of these events can vary dramatically due to factors within and beyond our control, such as delays or failures in our IND submissions or clinical trials, issues related to the manufacturing of drug supply, uncertainties inherent in the regulatory approval process, market conditions and interest by partners in our product candidates among other things. We may not make regulatory submissions or receive regulatory approvals as planned; our clinical trials may not be completed; or we may not secure partnerships for any of our product candidates. Any failure to achieve one or more of these milestones as planned would have a material adverse effect on our business, financial condition and results of operations.

Delays in clinical testing could result in delays in commercializing our product candidates and our business may be substantially harmed.

We cannot predict whether any clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Our product development costs will increase if we experience delays in clinical testing. Significant clinical trial delays could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before us, which would impair our ability to successfully commercialize our product candidates and may harm our financial condition, results of operations and prospects. The recommencement and completion of clinical trials for our products, including the APTO-253 phase I clinical trial and the IND submission and phase I clinical trial for CG'806, may be delayed for a number of reasons, including delays related, but not limited, to:

- failure by regulatory authorities to grant permission to proceed or placing the clinical trial on hold;
- patients failing to enroll or remain in our trials at the rate we expect;
- suspension or termination of clinical trials by regulators for many reasons, including concerns about patient safety or failure of our contract manufacturers to comply with cGMP requirements;
- any changes to our manufacturing process that may be necessary or desired;
- delays or failure to obtain GMP-grade clinical supply from contract manufacturers of our products necessary to conduct clinical trials;
- product candidates demonstrating a lack of safety or efficacy during clinical trials;
- patients choosing an alternative treatment for the indications for which we are developing any of our product candidates or participating in competing clinical trials;
- patients failing to complete clinical trials due to dissatisfaction with the treatment, side effects or other reasons;
- reports of clinical testing on similar technologies and products raising safety and/or efficacy concerns;
- competing clinical trials and scheduling conflicts with participating clinicians;
- clinical investigators not performing our clinical trials on their anticipated schedule, dropping out of a trial, or employing methods not consistent with the clinical trial protocol, regulatory requirements or other third parties not performing data collection and analysis in a timely or accurate manner;
- failure of our contract research organizations, or CROs, to satisfy their contractual duties or meet expected deadlines;
- inspections of clinical trial sites by regulatory authorities or IRBs, or ethics committees finding regulatory violations that require us to undertake corrective action, resulting in suspension or termination of one or more sites or the imposition of a clinical hold on the entire study;

- one or more IRBs or ethics committees rejecting, suspending or terminating the study at an investigational site, precluding enrollment of additional subjects, or withdrawing its approval of the trial; or

- failure to reach agreement on acceptable terms with prospective clinical trial sites.

Our product development costs will increase if we experience delays in testing or approval or if we need to perform more or larger clinical trials than planned. Additionally, changes in regulatory requirements and policies may occur, and we may need to amend study protocols to reflect these changes. Amendments may require us to resubmit our study protocols to regulatory authorities or IRBs or ethics committees for re-examination, which may impact the cost, timing or successful completion of that trial. Delays or increased product development costs may have a material adverse effect on our business, financial condition and prospects.

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.

We rely on contract manufacturing organizations ("CMOs"), to manufacture our product candidates for some preclinical studies and clinical trials. We rely on CMOs for manufacturing, filling, packaging, storing and shipping of drug product in compliance with cGMP regulations applicable to our products. The FDA ensures the quality of drug products by carefully monitoring drug manufacturers' compliance with cGMP regulations. The cGMP regulations for drugs contain minimum requirements for the methods, facilities and controls used in manufacturing, processing and packing of a drug product.

We contracted with multiple CMOs for the manufacture of APTO-253 and CG'806 to supply drug supply and then drug product for our clinical trials. The synthesis of CG'806 drug supply is challenging from a scale-up synthetic chemistry perspective. The formulation and manufacture of APTO-253 is a complex process with many variables involved. We pre-qualified CMOs to have the capacity, the systems and the experience to supply CG'806 and APTO-253 for our clinical trials. We have qualified the manufacturing facilities and the FDA has also performed site audits for our selected CMOs. In spite of the efforts to prequalify CMOs, delays and errors may occur, and any such manufacturing failures, delays or compliance issues could cause delays in the completion of our clinical trial programs.

There can be no assurances that CMOs will be able to meet our timetable and requirements. We have contracted with alternate suppliers in the event our current CMOs are unable to scale up production, or if our current CMOs otherwise experience any other significant problems in the manufacture of CG'806 and APTO-253. However, it is possible that all third-party manufacturing sources may experience failure or delays and may demand commercially unreasonable terms, which may lead to further delays in the development of our product candidates. Further, contract manufacturers must operate in compliance with cGMP and failure to do so could result in, among other things, the disruption of product supplies. Our dependence upon third parties for the manufacture of our products may adversely affect our profit margins and our ability to develop and deliver products on a timely and competitive basis.

If we have difficulty enrolling patients in clinical trials, the completion of the trials may be delayed or cancelled.

As our product candidates advance from preclinical testing to clinical testing, and then through progressively larger and more complex clinical trials, we will need to enroll an increasing number of patients that meet our eligibility criteria. There is significant competition for recruiting cancer patients in clinical trials, and we may be unable to enroll the patients we need to complete clinical trials on a timely basis or at all. Certain factors that affect enrollment of patients onto our clinical trials are impacted by external forces that may be beyond our control. Such factors include, but are not limited to, the following:

- size and nature of the patient population;
- eligibility and exclusion criteria for the trial;
- design of the study protocol;
- competition with other companies for clinical sites or patients;
- the perceived risks and benefits of the product candidate under study;
- the patient referral practices of physicians; and
- the number, availability, location and accessibility of clinical trial sites.

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 plan to develop companion diagnostics for our therapeutic product candidates. We expect that, at least in some cases, regulatory authorities may require the development and regulatory approval of a companion diagnostic as a condition to approving our therapeutic product candidates. We have limited experience and capabilities in developing or commercializing diagnostics and plan to rely in large part on third parties to perform these functions. We do not currently have any agreement in place with any third party to develop or commercialize companion diagnostics for any of our therapeutic product candidates.

Companion diagnostics are subject to regulation by the FDA, Health Canada and comparable foreign regulatory authorities as medical devices and may require separate regulatory approval or clearance prior to commercialization. If we, or any third parties that we engage to assist us, are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience delays in doing so, our business may be substantially harmed.

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 rely and will continue to rely on third parties to conduct a significant portion of our preclinical and clinical development activities. Preclinical activities include *in vivo* studies providing access to specific disease models, pharmacology and toxicology studies, and assay development. Clinical development activities include trial design, regulatory submissions, clinical patient recruitment, clinical trial monitoring, clinical data management and analysis, safety monitoring and project management, contract manufacturing and quality assurance. If there is any dispute or disruption in our relationship with third parties, or if they are unable to provide quality services in a timely manner and at a feasible cost, our active development programs will face delays. Further, if any of these third parties fails to perform as we expect or if their work fails to meet regulatory requirements, our testing could be delayed, cancelled or rendered ineffective.

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.

The loss of Dr. William G. Rice, our Chairman, President and Chief Executive Officer, or other key members of our staff, including Gregory Chow, our Senior Vice President and Chief Financial Officer, could harm us. We have employment agreements with Dr. Rice and Mr. Chow, although such employment agreements do not guarantee their retention. We also depend on our scientific and clinical collaborators and advisors, all of whom have outside commitments that may limit their availability to us. In addition, we believe that our future success will depend in large part upon our ability to attract and retain highly skilled scientific, managerial, medical, clinical and regulatory personnel, particularly as we expand our activities and seek regulatory approvals for clinical trials. We routinely enter into consulting agreements with our scientific and clinical collaborators and advisors, key opinion leaders and academic partners in the ordinary course of our business. We also enter into contractual agreements with physicians and institutions who will recruit patients into our clinical trials on our behalf in the ordinary course of our business. Notwithstanding these arrangements, we face significant competition for these types of personnel from other companies, research and academic institutions, government entities and other organizations. We cannot predict our success in hiring or retaining the personnel we require for continued growth. The loss of the services of any of our executive officers or other key personnel could potentially harm our business, operating results or financial condition.

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 are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include failures to comply with FDA/Health Canada regulations, provide accurate information to the FDA/Health Canada, comply with manufacturing standards we have established, comply with federal, state and provincial health-care fraud and abuse laws and regulations, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a substantial impact on our business and results of operations, including the imposition of substantial fines or other sanctions.

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.

We may in the future seek to expand our pipeline and capabilities by acquiring one or more companies or businesses, entering into collaborations or in-licensing one or more product candidates. For example, in June 2016, we entered into a definitive agreement with CG, granting Aptose an exclusive option to research, develop and commercialize CG’806 in all countries of the world except Korea and China, for all fields of use.

Acquisitions, collaborations and in-licenses involve numerous risks, including, but not limited to:

- substantial cash expenditures;

- technology development risks;
- potentially dilutive issuances of equity securities;
- incurrence of debt and contingent liabilities, some of which may be difficult or impossible to identify at the time of acquisition;
- difficulties in assimilating the operations of the acquired companies;
- potential disputes regarding contingent consideration;
- diverting our management's attention away from other business concerns;
- entering markets in which we have limited or no direct experience;
- potential loss of our key employees or key employees of the acquired companies or businesses; and
- failure of the in-licenses agents or technologies to deliver the desired activities or functions.

We have experience in entering collaborations and in-licensing product candidates, however, we cannot provide assurance that any acquisition, collaboration or in-license will result in short-term or long-term benefits to us. We may incorrectly judge the value or worth of an acquired company or business or in-licensed product candidate. In addition, our future success would depend in part on our ability to manage the rapid growth associated with some of these acquisitions, collaborations and in-licenses. We cannot assure you that we would be able to successfully combine our business with that of acquired businesses, manage a collaboration or integrate in-licensed product candidates. Furthermore, the development or expansion of our business may require a substantial capital investment by us.

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.

From time to time, studies or clinical trials on various aspects of biopharmaceutical products are conducted by academic researchers, competitors or others. The results of these studies or trials, when published, may have a significant effect on the market for the biopharmaceutical product that is the subject of the study. The publication of negative results of studies or clinical trials or adverse safety events related to our product candidates, or the therapeutic areas in which our product candidates compete, could adversely affect our share price and our ability to finance future development of our product candidates, and our business and financial results could be materially and adversely affected.

The design or our execution of clinical trials may not support regulatory approval.

The design or execution of a clinical trial can determine whether its results will support regulatory approval and flaws in the design or execution of a clinical trial may not become apparent until the clinical trial is well advanced. In some instances, there can be significant variability in safety or efficacy results between different trials of the same product candidate due to numerous factors, including changes in trial protocols, differences in size and type of the patient populations, adherence to the dosing regimen and other trial protocols and the rate of dropout among clinical trial participants. We do not know whether any Phase II, Phase III or other clinical trials that we may conduct will demonstrate consistent or adequate efficacy and safety to obtain regulatory approval to market our product candidates.

Further, the FDA, Health Canada and comparable foreign regulatory authorities have substantial discretion in the approval process and in determining when or whether regulatory approval will be obtained for any of our product candidates. Our product candidates may not be approved even if they achieve their primary endpoints in future Phase 3 clinical trials or registration trials. The FDA, Health Canada or other regulatory authorities may disagree with our trial design and the Company's interpretation of data from preclinical studies and clinical trials. In addition, any of these regulatory authorities may change requirements for the approval of a product candidate even after reviewing and providing comments or advice on a protocol for a pivotal Phase 3 clinical trial that has the potential to result in FDA, Health Canada or other agencies' approval. In addition, any of these regulatory authorities may also approve a product candidate for fewer or more limited indications than the Company requests or may grant approval contingent on the performance of costly post-marketing clinical trials. The FDA, Health Canada or other regulatory authorities may not approve the labeling claims that we believe would be necessary or desirable for the successful commercialization of our product candidates.

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.

Many of our competitors have:

- drug products that have already been approved or are in development, and operate large, well-funded research and development programs in the biotechnical and pharmaceutical fields;
- substantially greater financial, technical and management resources, stronger intellectual property positions and greater manufacturing, marketing and sales capabilities, areas in which we have limited or no experience; and
- significantly greater experience than we do in undertaking preclinical testing and clinical trials of new or improved pharmaceutical products and obtaining required regulatory approvals.

Consequently, our competitors may obtain FDA, Health Canada and other regulatory approvals for product candidates sooner and may be more successful in manufacturing and marketing their products than we or our collaborators are.

Our competitors' existing and future products, therapies and technological approaches will compete directly with the products we seek to develop. Current and prospective competing products may be more effective than our existing and future products insofar as they may provide greater therapeutic benefits for a specific problem or may offer easier delivery or comparable performance at a lower cost.

Any product candidate that we develop and that obtains regulatory approval must then compete for market acceptance and market share. Our products may not gain market acceptance among physicians, patients, healthcare payers, insurers, the medical community and other stakeholders. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- efficacy and potential advantages compared to alternative treatments;
- the ability to offer its product candidates for sale at competitive prices;
- convenience and ease of administration compared to alternative treatments;

- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- sufficient third party coverage or reimbursement; and
- the prevalence and severity of any side effects.

Further, any products we develop may become obsolete before we recover any expenses we incurred in connection with the development of these products. As a result, we may never achieve profitability.

Risks Related to our Intellectual Property

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.

Patent protection

The patent positions of pharmaceutical and biotechnology companies are uncertain and involve complex legal and factual questions. The USPTO and many other patent offices in the world have not established a consistent policy regarding the breadth of claims that they will allow in biotechnology patents.

Our pending patent applications may not result in issued patents and our issued patents may not be held valid and enforceable if challenged. Competitors may be able to circumvent any such issued patents by adoption of a competitive, though non-infringing product or process. Interpretation and evaluation of pharmaceutical or biotechnology patent claims present complex and often novel legal and factual questions. Our business could be adversely affected by increased competition in the event that any patent granted to it is held to be invalid or unenforceable or is inadequate in scope to protect our operations.

Allowable patentable subject matter and the scope of patent protection obtainable may differ between jurisdictions. If a patent office allows broad claims, the number and cost of patent interference proceedings in the United States, or analogous proceedings in other jurisdictions and the risk of infringement litigation may increase. If it allows narrow claims, the risk of infringement may decrease, but the value of our rights under our patents, licenses and patent applications may also decrease.

The scope of the claims in a patent application can be significantly modified during prosecution before the patent is issued. Consequently, we cannot know whether our pending applications will result in the issuance of patents or, if any patents are issued, whether they will provide us with significant proprietary protection or will be circumvented, invalidated or found to be unenforceable.

Publication of discoveries in scientific or patent literature often lags behind actual discoveries. Patent applications filed in the United States generally will be published 18 months after the filing date unless the applicant certifies that the invention will not be the subject of a foreign patent application. In many other jurisdictions, such as Canada, patent applications are published 18 months from the priority date. We may not be aware of such literature. Accordingly, we cannot be certain that the named inventors of our products and processes were the first to invent that product or process or that we were the first to pursue patent coverage for our inventions.

In addition, United States patent laws may change which could prevent or limit us from filing patent applications or patent claims in the United States to protect our products and technologies or limit the exclusivity periods that are available to patent holders for United States patents. For example, the *Leahy-Smith America Invents Act*, (the "Leahy-Smith Act") was signed into law in 2011 and includes a number of significant changes to United States patent law. These include changes to transition from a "first-to-invent" system to a "first-to-file" system and to the way issued patents are challenged. These changes may favour larger and more established companies that have more resources to devote to patent application filing and prosecution. It is not clear what, if any, impact the Leahy-Smith Act will ultimately have on the cost of prosecuting our patent applications in the United States, our ability to obtain patents in the United States based on our discoveries and our ability to enforce or defend our United States issued patents.

Until such time, if ever, that further patents are issued to us, we will rely upon the law of trade secrets to the extent possible given the publication requirements under international patent treaty laws and/or requirements under foreign patent laws to protect our technology and our products incorporating the technology. In this regard, we have adopted certain confidentiality procedures. These include: limiting access to confidential information to certain key personnel; requiring all directors, officers, employees and consultants and others who may have access to our intellectual property to enter into confidentiality agreements which prohibit the use of or disclosure of confidential information to third parties; and implementing physical security measures designed to restrict access to such confidential information and products. Our ability to maintain the confidentiality of our technology is crucial to our ultimate possible commercial success. The procedures adopted by us to protect the confidentiality of our technology may not be effective, third parties may gain access to our trade secrets or our trade secrets or those of our collaborators may be independently discovered by others. Our collaborators, employees and consultants and other parties may not comply with the terms of their agreements with us, and we might be unable to adequately enforce our rights or obtain adequate compensation for the damages caused by unauthorized disclosure or use of our trade secrets or know how. Further, by seeking patent protection in various countries, it is inevitable that a substantial portion of our technology will become available to our competitors, through publication of such patent applications.

Enforcement of intellectual property rights

Protection of the rights revealed in published patent applications can be complex, costly and uncertain. Our commercial success depends in part on our ability to maintain and enforce our proprietary rights. If third parties engage in activities that infringe our proprietary rights, our management's focus will be diverted and we may incur significant costs in asserting our rights. We may not be successful in asserting our proprietary rights, which could result in our patents being held invalid or a court holding that the third party is not infringing, either of which would harm our competitive position.

Others may design around our patented technology. We may have to participate in interference proceedings declared by the United States Patent and Trademark Office, European opposition proceedings, or other analogous proceedings in other parts of the world to determine priority of invention and the validity of patent rights granted or applied for, which could result in substantial cost and delay, even if the eventual outcome is favourable to us. Our pending patent applications, even if issued, may not be held valid or enforceable.

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.

Our success also depends on avoiding infringement of the proprietary technologies of others. In particular, there may be certain issued patents and patent applications claiming subject matter which we or our collaborators may be required to license in order to research, develop or commercialize APTO-253 or CG'806. In addition, third parties may assert infringement or other intellectual property claims against us. An adverse outcome in these proceedings could subject us to significant liabilities to third-parties, require disputed rights to be licensed from third-parties or require us to cease or modify our use of the technology. If we are required to license third-party technology, a license under such patents and patent applications may not be available on acceptable terms or at all. Further, we may incur substantial costs defending ourselves in lawsuits against charges of patent infringement or other unlawful use of another's proprietary technology. We may also need to bring claims against others who we believe are infringing our rights in order to become or remain competitive and successful. Any such claims can be time consuming and expensive to pursue.

We may incur substantial cost in defending our intellectual property.

While we believe that our products and technology do not infringe proprietary rights of others, third parties may assert infringement claims in the future and such claims could be successful. Even if challenges are unsuccessful, we could incur substantial costs in defending ourselves against patent infringement claims brought by others or in prosecuting suits against others. In addition, others may obtain patents that we would need to license, which may not be available to us on reasonable terms. Whether we are able to obtain a necessary license would depend on the terms offered, the degree of risk of infringement and the need for the patent.

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.

The clinical testing and commercial use of pharmaceutical products involves significant exposure to product liability, clinical trial liability, environmental liability and other risks that are inherent in the testing, manufacturing and marketing of our products. These liabilities, if realized, could have a material adverse effect on the Company's business, results of operations and financial condition.

We have obtained limited product liability insurance coverage for our clinical trials on humans; however, our insurance coverage may be insufficient to protect us against all product liability damages. Regardless of merit or eventual outcome, liability claims may result in decreased demand for a future product, injury to reputation, withdrawal of clinical trial volunteers, loss of revenue, costs of litigation, distraction of management and substantial monetary awards to plaintiffs. Additionally, if we are required to pay a product liability claim, we may not have sufficient financial resources to complete development or commercialization of any of our product candidates and our business and results of operations will be adversely affected. In general, insurance will not protect us against some of our own actions, such as negligence.

As the Company's development activities progress towards the commercialization of product candidates, our liability coverage may not be adequate, and the Company may not be able to obtain adequate product liability insurance coverage at a reasonable cost, if at all. Even if the Company obtains product liability insurance, its financial position may be materially adversely affected by a product liability claim. A product liability claim could also significantly harm the Company's reputation and delay market acceptance of its product candidates. Additionally, product recalls may be issued at the direction of the FDA, other government agencies or other companies having regulatory control for pharmaceutical sales. If a product recall occurs in the future, such a recall could adversely affect our business, financial condition or reputation.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and radioactive and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

We may be unable to obtain partnerships for our product candidates, which could curtail future development and negatively affect our share price. In addition, our partners might not satisfy their contractual responsibilities or devote sufficient resources to our partnership.

Our strategy for the research, development and commercialization of our products requires entering into various arrangements with corporate collaborators, licensors, licensees and others, and our commercial success is dependent upon these outside parties performing their respective contractual responsibilities. The amount and timing of resources that such third parties will devote to these activities may not be within our control. These third parties may not perform their obligations as expected and our collaborators may not devote adequate resources to our programs. In addition, we could become involved in disputes with our collaborators, which could result in a delay or termination of the related development programs or result in litigation. We intend to seek additional collaborative arrangements to develop and commercialize some of our products. We may not be able to negotiate collaborative arrangements on favourable terms, or at all, in the future, and our current or future collaborative arrangements may not be successful.

If we cannot negotiate collaboration, license or partnering agreements, we may never achieve profitability and we may not be able to continue to develop our product candidates. Commencing Phase I Phase II and Phase III clinical trials for CG'806 and continuing Phase Ib, and commencing Phase II and Phase III clinical trials for APTO-253 would require significant amounts of funding and such funding may not be available to us.

Exchange rate risk

We may be exposed to fluctuations of the United States dollar against certain other currencies because we hold most of our cash and cash equivalents in United States 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 do not currently employ a hedging strategy against exchange rate risk. We cannot assert with any assurance that we will not suffer losses as a result of unfavorable fluctuations in the exchange rates between the United States dollar, the Canadian dollar and other currencies.

Extensive Government Regulation

Government regulation is a significant factor in the development, production and marketing of the Company's products. Research and development, testing, manufacture, marketing and sales of pharmaceutical products or related products are subject to extensive regulatory oversight, often in multiple jurisdictions, which may cause significant additional costs and/or delays in bringing products to market, and in turn, may cause significant losses to investors. The regulations applicable to the Company's product candidates may change. Even if granted, regulatory approvals may include significant limitations on the uses for which products can be marketed or may be conditioned on the conduct of post-marketing surveillance studies. Failure to comply with applicable regulatory requirements can, among other things, result in warning letters, the imposition of civil penalties or other monetary payments, delay in approving or refusal to approve a product candidate, suspension or withdrawal of regulatory approval, product recall or seizure, operating restrictions, interruptions of clinical trials or manufacturing, injunctions or criminal prosecution. In addition, regulatory agencies many not approve the labeling claims that are necessary or desirable for the successful commercialization of the Company's product candidates.

Requirements for regulatory approval vary widely from country to country. Whether or not approved in Canada or the United States, regulatory authorities in other countries must approve a product prior to the commencement of marketing the product in those countries. The time required to obtain any such approval may be longer or shorter than in Canada or the United States. Approved drugs, as well as their manufacturers, are subject to continuing and ongoing review, and discovery of problems with these products or the failure to adhere to manufacturing or quality control requirements may result in regulatory restrictions being imposed.

Risks Related to Our Common Shares

Our share price has been and is likely to continue to be volatile and an investment in our Common Shares could suffer a decline in value.

You should consider an investment in our Common Shares as risky and invest only if you can withstand a significant loss and wide fluctuations in the market value of your investment. The market price of our Common Shares has been highly volatile and is likely to continue to be volatile. This leads to a heightened risk of securities litigation pertaining to such volatility. Factors affecting our Common Share price include but are not limited to:

- our ability to continue as a going concern;
- our ability to raise additional capital;
- the progress of our pre-clinical and clinical trials;
- our ability to obtain partners and collaborators to assist with the future development of our products;
- general market conditions;

- announcements of technological innovations or new product candidates by us, our collaborators or our competitors;
- published reports by securities analysts;
- developments in patent or other intellectual property rights;
- the cash and investments held by us and our ability to secure future financing;
- public concern as to the safety and efficacy of drugs that we and our competitors develop;
- shareholder interest in our Common Shares; and
- low liquidity in the daily trading volume of our Common Shares.

Future sales of our Common Shares by us or by our existing shareholders could cause our share price to fall.

The issuance of Common Shares by us could result in significant dilution in the equity interest of existing shareholders and adversely affect the market price of our Common Shares. Sales by existing shareholders of a large number of our Common Shares in the public market and the issuance of Common Shares in connection with strategic alliances, or the perception that such additional sales could occur, could cause the market price of our Common Shares to decline and have an undesirable impact on our ability to raise capital.

We are susceptible to stress in the global economy and therefore, our business may be affected by the current and future global financial condition.

If the increased level of volatility and market turmoil that have marked recent years continue, our operations, business, financial condition and the trading price of our Common Shares could be materially adversely affected. Furthermore, general economic conditions may have a great impact on us, including our ability to raise capital, our commercialization opportunities and our ability to establish and maintain arrangements with others for research, manufacturing, product development and sales.

An active trading market in our Common Shares may not be sustained.

Our Common Shares are listed for trading on the NASDAQ and the TSX. However, an active trading market in our Common Shares on the stock exchanges may not be sustained and we may not be able to maintain our listings.

Other Risks

It may be difficult for non-Canadian investors to obtain and enforce judgments against us because of our Canadian incorporation and presence.

We are a corporation existing under the laws of Canada. Some of our directors and officers, and many of the experts named in this AIF and the documents incorporated by reference into this AIF, are residents of Canada, and all or a substantial portion of their assets, and a substantial portion of our assets, are located outside the United States. Consequently, although we have appointed an agent for service of process in the United States, it may be difficult for holders of our shares who reside in the United States to effect service within the United States upon our directors and officers and experts who are not residents of the United States. It may also be difficult for holders of our shares who reside in the United States to realize in the United States upon judgments of courts of the United States predicated upon our civil liability and the civil liability of our directors, officers and experts under the United States federal securities laws. Investors should not assume that Canadian courts (i) would enforce judgments of United States courts obtained in actions against us or our directors, officers or experts predicated upon the civil liability provisions of the United States federal securities laws or the securities or "blue sky" laws of any state within the United States or (ii) would enforce, in original actions, liabilities against us or our directors, officers or experts predicated upon the United States federal securities laws or any such state securities or "blue sky" laws. In addition, we have been advised by our Canadian counsel that in normal circumstances, only civil judgments and not other rights arising from United States securities legislation are enforceable in Canada and that the protections afforded by Canadian securities laws may not be available to investors in the United States.

We are likely a "passive foreign investment company" which may have adverse United States federal income tax consequences for United States shareholders.

United States investors in our Common Shares should be aware that the Company believes it was classified as a passive foreign investment company ("PFIC") during the tax year ended December 31, 2017, and based on the nature of our business, the projected composition of our gross income and the projected composition and estimated fair market value of our assets, the Company expects to be a PFIC for the current tax year ending December 31, 2018 and may be a PFIC in subsequent tax years. If the Company is a PFIC for any year during a United States shareholder's holding period, then such United States shareholder generally will be required to treat any gain realized upon a disposition of Common Shares, or any so-called "excess distribution" received on its Common Shares, as ordinary income, and to pay an interest charge on a portion of such gain or distributions, unless the shareholder makes a timely and effective "qualified electing fund" election ("QEF election") or a "mark-to-market" election with respect to the Common Shares. A United States shareholder who makes a QEF election generally must report on a current basis its share of the Company's net capital gain and ordinary earnings for any year in which the Company is a PFIC, whether or not the Company distributes any amounts to its shareholders. However, United States shareholders should be aware that we do not intend to satisfy record keeping requirements that apply to a qualified electing fund, and we do not intend to supply United States shareholders with information that such United States shareholders require to report under the QEF election rules, in the event that we are a PFIC and a United States shareholder wishes to make a QEF election. Thus, United States shareholders should assume that they will not be able to make a QEF election with respect to their Common Shares. A United States shareholder who makes the mark-to-market election generally must include as ordinary income each year the excess of the fair market value of the Common Shares over the taxpayer's basis therein. Each United States shareholder should consult its own tax advisor regarding the United States federal, United States local, and foreign tax consequences of the PFIC rules and the acquisition, ownership, and disposition of our Common Shares.

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.

We are an "emerging growth company," as defined in the *Jumpstart Our Business Startups Act of 2012*(United States), or the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the *Sarbanes-Oxley Act of 2002* (United States) (the "SOX"), reduced disclosure obligations regarding executive compensation in our periodic reports and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We will cease to be an emerging growth company upon the earliest of:

- the last day of the fiscal year during which we have total annual gross revenues of $1,000,000,000 (as such amount is indexed for inflation every five years by the United States Securities Exchange Commission (the "SEC") or more;
- the last day of our fiscal year following the fifth anniversary of the completion of our first sale of common equity securities pursuant to an effective registration statement under the *Securities Act* (United States) which will be in September 2020;
- the date on which we have, during the previous three-year period, issued more than $1,000,000,000 in non- convertible debt; or
- the date on which we are deemed to be a "large accelerated filer", as defined in Rule 12b–2 of the*Exchange Act* (United States) (the "Exchange Act"), which would occur if the market value of our ordinary shares that are held by non-affiliates exceeds $700,000,000 as of the last day of our most recently-completed second fiscal quarter.

We cannot predict if investors will find our common shares less attractive because we may rely on these exemptions. If some investors find our Common Shares less attractive as a result, there may be a less active trading market for our Common Shares and our share price may be more volatile.

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.

Section 404(a) of the SOX requires that our management assess and report annually on the effectiveness of our internal controls over financial reporting and identify any material weaknesses in our internal controls over financial reporting. Although Section 404(b) of the SOX requires our independent registered public accounting firm to issue an annual report that addresses the effectiveness of our internal controls over financial reporting, we have opted to rely on the exemptions provided to us by virtue of being a foreign private issuer and an emerging growth company, and consequently will not be required to comply with SEC rules that implement Section 404(b) of SOX until we lose our emerging growth company status.

Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. If we fail to maintain an effective system of internal controls, we might not be able to report our financial results accurately or 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. While we believe that we have sufficient personnel and review procedures to allow us to maintain an effective system of internal controls, we cannot assure you that we will not experience potential material weaknesses in our internal control. Even if we conclude that our internal control over financial reporting provides reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with International Financial Reporting Standards, as issued by the International Accounting Standards Board, because of its inherent limitations, internal control over financial reporting may not prevent or detect fraud or misstatements. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our results of operations or cause us to fail to meet our future reporting obligations.

If we fail to timely achieve and maintain the adequacy of our internal control over financial reporting, we may not be able to produce reliable financial reports or help prevent fraud. Our failure to achieve and maintain effective internal control over financial reporting could prevent us from complying with our reporting obligations on a timely basis, which could result in the loss of investor confidence in the reliability of our consolidated financial statements, harm our business and negatively impact the trading 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.

As a foreign private issuer, we are exempt from certain rules under the Exchange Act that impose disclosure requirements as well as procedural requirements for proxy solicitations under Section 14 of the Exchange Act. In addition, our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions of Section 16 of the Exchange Act. Moreover, we are not required to file periodic reports and financial statements with the SEC as frequently or as promptly as a company that files as a domestic issuer whose securities are registered under the Exchange Act, nor are we generally required to comply with the SEC's Regulation Faire Disclosure, which restricts the selective disclosure of material non-public information. For as long as we are a "foreign private issuer" we intend to file our annual financial statements on Form 20-F and furnish our quarterly updates on Form 6-K to the SEC for so long as we are subject to the reporting requirements of Section 13(g) or 15(d) of the Exchange Act. However, the information we file or furnish is not the same as the information that is required in annual and quarterly reports on Form 10-K or Form 10-Q for United States domestic issuers. Accordingly, there may be less information publicly available concerning us than there is for a company that files as a domestic issuer.

Data security incidents and privacy breaches could result in important remediation costs, increased cyber security costs, litigation and reputational harm.

Cyber security incidents can result from deliberate attacks or unintentional events. Cyber-attacks and security breaches could include unauthorized attempts to access, disable, improperly modify or degrade the Company's information, systems and networks, the introduction of computer viruses and other malicious codes and fraudulent "phishing" emails that seek to misappropriate data and information or install malware onto users' computers. Cyber-attacks in particular vary in technique and sources, are persistent, frequently change and are increasingly more targeted and difficult to detect and prevent against. Our network security and data recovery measures and those of third parties with which we contract, many not be adequate to protect again cyber-attacks.

Disruptions due to cyber security incidents could adversely affect Aptose's business. In particular, a cyber security incident could result in the loss or corruption of data from Aptose's research and development activities, including clinical trials, which may cause significant delays to some or all of the Company's clinical programs. Also, the Company's trade secrets, including unpatented know-how, technology and other proprietary information could be disclosed to competitors further to a breach, which would harm the Company's business and competitive position. We expect that risks and exposures related to cyber security attacks will remain high for the foreseeable future due to the rapidly evolving nature and sophistication of these threats. While we have invested in the protection of data and information technology, there can be no assurance that our efforts to implement adequate security measures would be sufficient to protect the Company against cyber-attacks.

We must successfully upgrade and maintain our information technology systems.

We rely on various information technology systems to manage our operations. There are inherent costs and risks associated with maintaining, modifying and/or changing these systems and implementing new systems, including potential disruption of our internal control structure, substantial capital expenditures, additional administration and operating expenses, retention of sufficiently skilled personnel to implement and operate its systems, demands on management time and other risks and costs of delays or difficulties in transitioning to new systems or of integrating new systems into our current systems. In addition, our information technology system implementations may not result in productivity improvements at a level that outweighs the costs of implementation, or at all. The implementation of new information technology systems may also cause disruptions in our business operations and have an adverse effect on our business, prospects, financial condition and operating results.

V. DIVIDENDS

The Company has not declared or paid any dividends on its Common Shares to date. The payment of dividends in the future will be dependent on the Company's earnings, financial condition and such other factors as the Board considers appropriate. However, the Company's current policy is to reinvest future earnings in order to finance its growth and the development of its business. As a result, the Company does not intend to pay dividends in the foreseeable future.

VI. DESCRIPTION OF CAPITAL STRUCTURE

We are authorized to issue an unlimited number of Common Shares. Our shareholders have no rights to share in our profits, are subject to no redemption or sinking fund provisions, have no liability for further capital calls and are not subject to any discrimination due to number of Common Shares owned.

Each holder of record of Common Shares, without par value, is entitled to one vote for each share held on all matters properly submitted to the shareholders for their vote, except matters which are required to be voted on as a particular class or series of stock. Cumulative voting for directors is not permitted.

Holders of outstanding Common Shares are entitled to those dividends declared by the board of directors out of legally available funds. By not more than 50 days nor less than seven days in advance of a dividend, the Board may establish a record date for the determination of the persons entitled to such dividend. In the event of liquidation, dissolution or winding up our affairs, holders of Common Shares are entitled to receive, pro rata, our net assets available after provision has been made for the preferential rights of the holders of preferred stock, including any surplus available after such event of liquidation, dissolution or winding up of the affairs of the Company. Holders of outstanding Common Shares have no pre-emptive, conversion or redemption rights. All of the issued and outstanding Common Shares are, and all unissued Common Shares, when offered and sold will be, duly authorized, validly issued, fully paid and non-assessable. To the extent that additional Common Shares may be issued in the future, the relative interests of the then existing shareholders may be diluted. There were 27,502,053 Common Shares issued and outstanding at December 31, 2017.

VII. Market For Securities

Trading Price and Volume

The Common Shares are currently listed and posted for trading on the TSX and are traded under the symbol "APS" and NASDAQ under the symbol "APTO".

The following table sets forth the reported high and low trade prices in Canadian dollars, the average volume of trading, and the cumulative volume of trading of the Common Shares as reported by the TSX for the periods indicated below:

	Price Range		Total Cumulative Volume
	High ($)	Low ($)	
January 2017	1.93	1.23	3,213,034
February 2017	1.66	1.27	1,176,580
March 2017	1.82	1.35	924,968
April 2017	1.38	1.05	1,264,036
May 2017	1.79	1.16	1,901,623
June 2017	2.20	1.36	1,009,177
July 2017	2.19	1.63	1,070,017
August 2017	2.20	1.69	592,046
September 2017	2.12	1.69	1,250,418
October 2017	2.07	1.64	595,242
November 2017	2.92	1.95	1,484,171
December 2017	3.00	2.17	1,048,398

The following table sets forth the reported high and low trade prices in Canadian dollars, the average volume of trading, and the cumulative volume of trading of the Common Shares as reported by NASDAQ for the periods indicated below:

	Price Range		Total Cumulative Volume
	High ($)	Low ($)	
January 2017	2.07	0.91	9,878,125
February 2017	1.29	0.98	7,822,362
March 2017	1.37	1.01	9,984,969
April 2017	1.05	0.78	4,648,218
May 2017	1.32	0.86	12,405,311
June 2017	1.70	1.00	10,651,964
July 2017	1.75	1.25	8,193,357
August 2017	1.75	1.36	5,057,911
September 2017	1.75	1.38	7,204,650
October 2017	1.61	1.30	6,255,650
November 2017	2.30	1.50	8,801,894
December 2017	2.58	1.68	15,383,437

Prior Sales

The only securities of Aptose that are outstanding but not listed or quoted on a marketplace are stock options and stock-based awards.

During the most recently completed financial year, we granted the following securities pursuant to our stock incentive plan: (i) on March 28, 2017, we granted (A) options to purchase an aggregate of 480,000 Common Shares at a price of Cdn$1.52 per Common Share, and (B) an aggregate of 150,000 restricted stock units which fully vested on June 28, 2017; (ii) on June 6, 2017, we granted options to purchase an aggregate of 191,250 Common Shares at a price of US$1.03 per Common Share; (iii) on June 6, 2017, we granted options to purchase an aggregate of 56,250 Common Shares at a price of Cdn$1.38 per Common Share; (iv) on August 8, 2017, we granted options to purchase an aggregate of 32,500 Common Shares at a price of US$1.69 per Common Share; (v) on August 8, 2017, we granted options to purchase an aggregate of 20,000 Common Shares at a price of Cdn$2.04 per Common Share; (vi) on November 14, 2017, we granted options to purchase an aggregate of 8,000 Common Shares at a price of US$2.05 per Common Share; and (vii) on December 4, 2017, we granted options to purchase an aggregate of 38,500 Common Shares at a price of US$2.01 per Common Share.

VIII. Directors And Officers

Directors

As at March 27, 2018, as a group, the Company's directors and executive officers beneficially owned, directly or indirectly, or exercised control of over an aggregate of 306,782 Common Shares representing 1% of the issued and outstanding Common Shares as at such date. The information as to the number of Common Shares beneficially owned or over which control is exercised, not being within the knowledge of the Company, has been furnished by SEDI and confirmed with each director or executive officer, as the case may be, individually as of March 27, 2018.

We have an Audit Committee, a Corporate Governance and Nominating Committee and a Compensation Committee, the members of each such committee are shown below.

The following table sets forth the name, province or state and country of residence of each director of the Company and states the respective positions and offices held with the Company, their principal occupations during the last five years and the periods during which each director has served as a director of the Company. Each director holds office until the next annual meeting of shareholders or until his successor is duly elected, unless prior thereto the director resigns or the director's office becomes vacant by reason of death or other cause.

Name and Municipality of Residence	Position Held with the Company	Principal Occupation during Past Five Years	Director Since
Dr. Denis Burger[(1)(2)] (Oregon, United States)	Lead Director	Chief Scientific Officer of Cytodyn Inc. (biotechnology company) (2015 to present) President, Yamhill Valley Vineyards, Inc. (vineyards) (1983 to present) Founding Chairman, Director, Trinity Biotech plc. (biotechnology company) (1992 to 1995 Chairman, 1995 to present as Director)	September 2007

Dr. Bradley Thompson[1][2][3] (Alberta, Canada)	Director	Chief Executive Officer, Kickshaw Ventures Ltd. (venture capital) (December 2016 to present) Chief Executive Officer and Chief Technology Officer, Wyvern Pharmaceuticals Inc. (biotechnology company) (December 2016 to present) President and Chief Executive Officer, Oncolytics Biotech Inc. (biotechnology company) (1999 to November 2016)	June 2013
Dr. Mark Vincent[3] (Ontario, Canada)	Director	Physician; consultant medical oncologist, London Regional Cancer Program of Cancer Care Ontario (cancer care facility) (1990 to present) Professor of Oncology, Western University of Ontario (university) (2008 to present)	September 2007
Warren Whitehead[1] (Ontario, Canada)	Director	Financial Consultant (self-employed) (2015 to present) Serves on several Boards of Directors (2009 to present) Chief Financial Officer, ProMIS Neurosciences (formerly Amorfix Life Sciences) (biotechnology company) (2013 to 2015)	April 2011
Dr. William G. Rice (California, United States)	Chairman	Chairman, President and Chief Executive Officer of the Company (2013 to present) Chairman, President and Chief Executive Officer, Cylene Pharmaceuticals Inc. (biotechnology company) (2003 to 2013)	October 2013
Dr. Erich Platzer[2] Switzerland	Director	Serves on several Boards of Directors (2003 to present) Investment Advisor, HMB Partners AG (healthcare investment firm) (2003 to 2015)	December 2014

(1) Member of the Audit Committee
(2) Member of the Compensation Committee
(3) Member of the Corporate Governance and Nominating Committee

Biographies

Dr. Denis Burger: Dr. Burger currently is the Chief Scientific Officer and member of the board of directors of Cytodyn Inc., a biotechnology company as well as Chairman of AMES Devices, a medical device company. Dr. Burger co-founded Trinity Biotech plc, based in Dublin, Ireland, in June 1992 and acted as Chairman from 1992 to 1995 and now serves on the board of directors of the company. Dr. Burger was the past Chairman, Chief Executive Officer and a director of AVI Biopharma Inc., an Oregon based biotechnology company, from 1992 to March 2007. Dr. Burger is also a partner in Sovereign Ventures, a healthcare consulting and funding firm based in Portland, Oregon. Dr. Burger received his MSc and Ph.D. in Microbiology and Immunology from the University of Arizona.

Dr. Erich Platzer: Dr. Platzer is a board certified physician in internal medicine, hematology and medical oncology. Previously, Dr. Platzer served as the business director of oncology, as well as the global strategic marketing and therapeutic area head of oncology at Roche, Basel. He was also the medical director in oncology and global development project leader and was responsible for various strategic corporate partnerships. Dr. Platzer is a director of Swiss Business Angel Groups, StartAngels and BioBAC, and has served as a pharmaceutical industry expert on the board of directors of multiple biotech companies in both the United States and Europe such as Probiodrug, AOT, Léman Micro Devices, Credentis, and Viroblock. Dr. Platzer co-founded HBM Healthcare Investments (formerly HBM BioVentures) a global leader in healthcare investing. He has over 12 years of experience in academic medicine and research and was a key member of the team at MSKCC that purified human G-CSF in 1983 (recombinant form: Neupogen®). He earned his M.D. from the Medical School and the Institute of Clinical Immunology and Rheumatology of the University of Erlangen, where he also received his “Dr. med. habil.” (M.D., Ph.D.).

Dr. William G. Rice: Dr. Rice joined Aptose as Chairman and Chief Executive Officer in October 2013. Prior to joining Aptose, Dr. Rice served as the President, Chief Executive Officer and Chairman of the board of Cylene Pharmaceuticals, Inc., a private biotechnology company (“Cylene”). Prior to Cylene, Dr. Rice was the founder, President, Chief Executive Officer and Director of Achillion Pharmaceuticals, Inc. He also served as Senior Scientist and Head of the Drug Mechanism Laboratory at the National Cancer Institute-Frederick Cancer Research and Development Center, and served as a faculty member in the division of Pediatric Hematology and Oncology at Emory University School of Medicine. Dr. Rice received his Ph.D. from Emory University Department of Biochemistry. He continues to serve as the Chairman of the board of Cylene and is a member of the board of directors of Oncolytics Biotech Inc.

Dr. Bradley Thompson: Dr. Thompson is an experienced biotechnology professional who is Chief Executive Officer of Kickshaw Ventures Ltd. and Chief Executive Officer and Chief Technology Officer of Wyvern Pharmaceuticals Inc. since December 2016. Prior to his role with Kickshaw and Wyvern Pharmaceuticals, Dr. Thompson was Chairman of the Board, President and Chief Executive Officer of Oncolytics Biotech Inc. from April 1999 to November 2016 and Chief Executive Officer of Synsorb Biotech from 1994 to 1999. He received his Ph.D. from the University of Western Ontario in the Department of Microbiology and Immunology.

Dr. Mark Vincent: Dr. Mark Vincent is a Professor of Oncology at the University of Western Ontario and a staff medical oncologist at the London Regional Cancer Program, where he has been since 1990. Dr. Vincent is also the co-founder and Chief Executive Officer of Sarissa, Inc. since 2000.

Mr. Warren Whitehead: Mr. Whitehead is a CPA (CMA) who has held senior financial management positions in several biotechnology and pharmaceutical companies. Most recently Mr. Whitehead was the Chief Financial Officer of ProMIS Neurosciences Inc. (formerly Amorfix Life Sciences Ltd.). Prior to this, he served as Chief Financial Officer of ARIUS Research Inc., providing financial guidance and leadership during the acquisition of ARIUS by Roche in 2008. Prior to ARIUS, Mr. Whitehead was Chief Financial Officer at Labopharm Inc., where he completed a series of public equity financings and a listing on NASDAQ. He is currently the Chairman of the board of directors of PlantForm Corporation.

Executive Officers

The following table sets forth the name, province or state and country of residence of the other non-director executive officers:

Name and Municipality of Residence	Position held with the Company	Principal Occupation during Past Five Years
Dr. William Rice (California, United States)	Chairman, President and Chief Executive Officer	Chairman, President and Chief Executive Officer of the Company (2013 to present) Chairman, President and Chief Executive Officer, Cylene Pharmaceuticals Inc. (biotechnology company) (2003 to 2013)
Gregory Chow (California, United States)	Senior Vice President and Chief Financial Officer	Chief Financial Officer of the Company Former Managing Director, Director of Private Placements at Wedbush Securities Former Director in the Private Placements/Equity Capital Markets Group at RBC Capital Markets Former Senior Auditor at BDO Seidman, LLP

Gregory Chow: Mr. Chow joined Aptose as Chief Financial Officer in December 2013. Previously, Mr. Chow served as Managing Director, Director of Private Placements at Wedbush Securities, where he led the private placement capital activities within the Life Sciences Investment Banking Group. Prior to joining Wedbush, he was a Director in the Private Placements / Equity Capital Markets Group at RBC Capital Markets, where he led life science private capital activities. Previously, he led the Private Capital Group at Wells Fargo Securities and was a Senior Auditor at BDO Seidman, LLP in their Century City, CA office. Mr. Chow is a Certified Public Accountant (inactive) in the State of California. Mr. Chow received his MBA in Finance from The Wharton School at the University of Pennsylvania, and his BA in Business Economics with an emphasis in Accounting from the University of California, Santa Barbara.

Shareholding, Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Except as disclosed below and to the knowledge of the Company, none of the current executive officers or directors of the Company or shareholders holding a sufficient number of securities of the Company to affect materially the control thereof is, or within 10 years before the date hereof, has been:

a. a director, chief executive officer or chief financial officer of any corporation (including the Company) that:

(i) was subject to an order that was issued while the proposed director was acting in the capacity as director, chief executive officer or chief financial officer, or

(ii) was subject to an order that was issued after the proposed director ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

b. a director or executive officer of any corporation (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or

c. has become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromises with creditors, or had a receiver, manager or trustee appointed to hold the assets of the proposed director.

For the purposes of (a) above, "order" means a cease trade order, an order similar to a cease trade order or an order that denied the relevant Company access to any exemption under securities legislation, in each case that was in effect for a period of more than 30 consecutive days.

Except as disclosed below and to the knowledge of the Company, none of the current executive officers or directors of the Company has been subject to:

a. any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or

b. any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable security holder in deciding whether to vote for a proposed director.

Conflicts of Interest

There are no existing or potential material conflicts of interest between the Company or its subsidiary and any director or officer of the Company or its subsidiary.

IX. AUDIT COMMITTEE

The charter of our Audit Committee is attached as Schedule A. The current members of the Audit Committee are Bradley Thompson, Denis Burger and Warren Whitehead. Mr. Warren Whitehead is the Chairman of the Audit Committee and has been considered to be the Financial Expert. Pursuant to Canadian securities laws, the Board has determined that Messrs. Thompson, Burger and Whitehead are financially literate as all have experience in reviewing and analyzing the financial reports and ascertaining the financial position of a corporation. Mr. Burger, in his previous position as Chairman and Chief Executive Officer of AVI Biopharma, is educated and experienced in reading and analyzing financial statements. Mr. Burger has also served on the audit committee of three other publicly listed biotechnology companies. Dr. Thompson has experience reading and interpreting financial statements through his former role as Chairman and CEO of a publicly listed biotechnology company as well as through his extensive experience serving on various company boards. Mr. Whitehead is a CPA (CMA) and has served as the Chief Financial Officer of Arius Research Inc. and Labopharm Inc. Additionally, we believe Mr. Thompson, Mr. Whitehead and Mr. Burger qualify as "independent" as that term is defined in the relevant securities laws relating to the composition of the audit committee.

Audit Committee Mandate

The Audit Committee's mandate is to assist the Board in fulfilling its oversight responsibilities. In particular, the Audit Committee:

- serves as an independent and objective party to monitor the integrity of our financial reporting process and systems of internal controls regarding finance, accounting, and legal compliance, including the review of our consolidated financial statements, MD&A and annual and interim results;
- identifies and monitors the management of the principal risks that could impact our financial reporting;
- monitors the independence and performance of our independent auditors, including the pre-approval of all audit fees and all permitted non-audit services;
- provides an avenue of communication among the independent auditors, management, and the Board; and
- encourages continuous improvement of, and foster adherence to, our policies, procedures and practices at all levels.

The Audit Committee is also responsible for implementing and overseeing our whistle-blowing procedures.

Ethical Business Conduct

We have adopted a code of ethics which applies to all of our officers, directors, employees and consultants. A copy of the code of ethics is available on our website at www.aptose.com or, without charge, upon written request from our Senior Vice President and chief Financial Officer at our offices located at 5955 Airport Road, Suite #228, Mississauga, Ontario L4V 1R9, Canada.

Pre-Approval Policies and Procedures

The Audit Committee of our Board has, pursuant to the Audit Committee charter, adopted specific responsibilities and duties regarding the provision of services by our external auditor, currently KPMG LLP. KPMG LLP is independent of the Company in accordance with the Rules of Professional Conduct of the Institute of Chartered Professional Accountants of Ontario.

Our charter requires Audit Committee pre-approval of all permitted audit, audit-related and tax services.

Subject to the charter, the Audit Committee may establish fee thresholds for a group of pre-approved services. The Audit Committee then recommends to the Board approval of the fees and other significant compensation to be paid to the independent auditors.

External Auditor Service Fees

The following table summarizes the Audit, Audit Related, Tax Related and Other Fees (excluding expenses and taxes) billed by the Company's auditor, KPMG LLP to the Company and its subsidiaries for the two most recently completed fiscal years.

Fees	December 31, 2017	December 31, 2016
Audit Fees [1]	CA$ 125,000	CA$ 116,000
Audit Related Fees [2]	CA$ 200,400	CA$ 211,400
Tax Fees [3]	$-	CA$ 62,150
All Other Fees [4]	$-	$-
Total Fees	CA$ 338,400	CA$ 399,310

(1) *Audit Fees* consist of the aggregate fees billed by the external auditor of the Company for audit services.
(2) *Audited Related Fees* consist of the aggregate fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the issuer's financial statements and are not reported under "Audit Fees" above and include the provision of comfort letters and consents, the consultation concerning financial accounting and reporting of specific issues and the review of documents filed with regulatory authorities.
(3) *Tax Fees* include fees billed for tax compliance, tax advice and tax planning services, including the preparation of original tax returns and claims for refund; tax consultations, such as assistance and representation in connection with tax audits and appeals, tax advice related to mergers and acquisitions, and requests for rulings or technical advice from taxing authorities; tax planning services; and consultation and planning services.
(4) *All Other Fees* include the aggregate fees billed for products and services provided by the auditors, other than the services reported above.

X. Legal Proceedings and Regulatory Actions

The Company is not a party to any legal proceeding, and its property is not and was not the subject of any material legal proceeding, during the year ended December 31, 2017. The Company is not aware of any legal proceeding outstanding, threatened or pending as of the date hereof by or against the Company.

The Company is not and was not subject to, during the year ended December 31, 2017: (i) penalties or sanctions imposed by a court relating to Canadian securities legislation or by a Canadian securities legislation or by a Canadian securities regulatory authority; (ii) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision; and (iii) settlement agreements entered into with a court relating to Canadian securities legislation or with a Canadian securities regulatory authority.

XI. Interest of Management and Others in Material Transactions

There are no material interests, direct or indirect, of directors, executive officers, any shareholder who beneficially owns, directly or indirectly, more than 10% of the outstanding Common Shares, or any known associates or affiliates of such persons, in any transaction within the last three years or in any proposed transaction which has materially affected or would materially affect the Company.

XII. Transfer Agent and Registrar

The registrar and transfer agent for the Common Shares is Computershare Investor Services Inc. at its principal office in the City of Toronto.

XIII. Material Contracts

The following are the material contracts, other than contracts entered into in the ordinary course of business, that the Company has entered into since January 1, 2017 or prior thereto but which are still in effect:

(i) exclusive global license agreement with OHM that provides OHM with the rights for the development, manufacture and commercialization of APL-581, as well as related molecules from Aptose's dual bromodomain and extra-terminal domain motif (BET) protein and kinase inhibitor program;

(ii) Purchase Agreement with Aspire Capital Fund, LLC which provides that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $15,500,000 of Common Shares;

(iii) a registration rights agreement entered into among the Company and Aspire Capital dated as of October 27, 2017 pursuant to which the Company provides certain registration rights under the Securities Act of 1933 (United States), as amended, and the rules and regulations thereunder; and

(iv) a definitive agreement entered into among the Company and CG, dated June 1, 2016, granting Aptose an exclusive option to research, develop and commercialize CG'806 in all countries of the world except Korea and China, for all fields of use.

A copy of these contracts can be found under the profile of the Company on SEDAR at www.sedar.com.

XIV. Interest of Experts

KPMG LLP, the auditor of the Company, is the only person, company or partnership which is named as having prepared or certified a statement, report or valuation described, included or referred to in a filing made by the Company during or relating to the Company's most recently completed financial year and whose profession or business gives authority to a statement, report or valuation made. The partners and associates of KPMG LLP do not hold any of the issued and outstanding Common Shares.

XV. Additional Information

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of our securities, options and to purchase securities and interests of insiders in material transactions, if any, is contained in the Management Information Circular of the Company dated April 18, 2017 prepared in connection with the Company's most recent annual shareholders' meeting and is available on SEDAR at www.sedar.com. Additional financial information, including the Company's audited financial statements and management's discussion and analysis of financial condition and results of operations, is available on SEDAR at www.sedar.com.

All requests for the above-mentioned documents must be addressed to the Senior Vice President and Chief Financial Officer of Aptose Biosciences Inc., #5955 Airport Road, Suite #228, Mississauga, Ontario L4V 1R9, or by fax at (905) 234-2120.

SCHEDULE A

MANDATE OF THE AUDIT COMMITTEE[1]

1. Purpose

The primary purposes of the Audit Committee (the "Committee") of the Board shall be to act on behalf of the Board, in fulfilling the Board's oversight responsibilities with respect to the Company's corporate accounting and financial reporting processes, the systems of internal control over financial reporting, and audits of financial statements, as well as the quality and integrity of the Company's financial statements and reports and the qualifications, independence and performance of the registered public accounting firm or firms engaged as the Company's independent outside auditors for the purpose of preparing or issuing an audit report or performing other audit, review or attest services (the "Auditors"). The Committee shall also provide oversight assistance in connection with the Company's legal, regulatory and ethical compliance programs as established by management and the Board. The operation of the Committee shall be subject to the constating documents of the Company as in effect from time to time and applicable law.

The policy of the Committee, in discharging these obligations, shall be to maintain and foster an open avenue of communication among the Committee, the Auditors and the Company's financial management.

The members of the Committee are not full-time employees of the Company and may or may not be accountants or auditors by profession or experts in the fields of accounting or auditing and, in any event, do not serve in such capacity. Consequently, it is not the duty of the Committee to conduct audits or to determine that the Company's financial statements and disclosures are complete and accurate and are in accordance with generally accepted accounting principles and applicable rules and regulations. These are the responsibilities of management and the external auditors.

2. Composition

The Committee shall be comprised of a minimum three directors as determined by the Board. Each of the members of the Committee shall satisfy the independence and financial literacy requirements of any applicable securities laws, securities regulatory authorities and stock exchanges, including without limitation, requirements set out in, or by, National Instrument 52-110 Audit Committee, the Nasdaq Stock Market ("Nasdaq"), the Toronto Stock Exchange (the "TSX") and the United Stated Securities and Exchange Commission, as in effect from time to time. At least one member shall satisfy the applicable Nasdaq financial sophistication requirements as in effect from time to time.

Committee members shall be appointed by the Board. Members of the Committee shall serve until their resignation or removal. The Board may fill vacancies on the Committee by a majority vote of the authorized numbers of Directors, but may remove Committee members only with the approval of a majority of the independent Directors then serving on the full Board. The Board shall designate a Committee member as the Chair of the Committee on an annual basis, or if the Board does not do so, the Committee members shall appoint a Committee member as Chair by a majority vote of the authorized number of Committee members.

[1] As revised and adopted by the Board on March 3, 2015.

3. Meetings, Reports and Resources of the Committee

(a) Meetings. In discharging its responsibilities, the Committee shall meet as often as it determines necessary or advisable, but not less frequently than quarterly. The Committee may also hold special meetings or act by unanimous written consent as the Committee may decide. The meetings may be in person or telephone. The Chair shall prepare and/or approve an agenda in advance of each meeting. The Committee shall appoint a secretary to be the secretary of each meeting of the Committee to keep written minutes of the meeting and deliberations and will ensure that such minutes are included in the Company's minute book. The Chair of the Committee shall report at the next regularly scheduled Board meeting following the applicable Committee meeting.

(b) Critical Reporting. The Committee shall report to the Board with respect to material issues that arise regarding the quality or integrity of the Company's financial statements, the Company's compliance with legal or regulatory requirements, the performance or independence of the Auditors or such other matters as the Committee deems appropriate from time to time or whenever it shall be called upon to do so. The Committee may invite any person to attend part or all of a meeting of the Committee.

(c) Procedures. The Committee may establish its own procedures, including the formation and delegation of authority to subcommittees, in a manner not inconsistent with this charter, the articles or applicable laws or regulations. The Chair or a majority of the Committee members may call meetings of the Committee. A majority of the members of the Committee constitute a quorum for the transaction of Committee business, and the vote of a majority of the Committee members present at the meeting at which a quorum is present shall be the act of the Committee. The Committee shall review, discuss and assess its own performance at least annually. The Committee shall also periodically review (at least annually) and assess the adequacy of this charter, including the Committee's role and responsibilities as outlined in this charter, and shall recommend any proposed changes to the Board of its consideration. The Committee may meet in separate sessions with the Auditors, as appropriate, and management and other directors to discuss any matters that the Committee, the Auditors or management believe should be discussed privately with the Committee.

(d) Reports. The Committee shall prepare the report required by the rules of the Securities and Exchange Commission (the "SEC") to be included in the Company's annual proxy statement (if the Company is required to file an annual proxy statement pursuant to SEC rules), as well as any other report required of the Committee under applicable laws.

(e) Committee Access and Resources. The Committee shall have authority to appoint, determine compensation for, and at the Company's expense, retain and oversee the Auditors subject to applicable law and regulations including Section 10A(m)(2) of the *United States Securities Exchange Act* of 1934, as amended, and the rules thereunder and otherwise to fulfill its responsibilities under this charter. The Committee is at all times authorized to have direct, independent and confidential access to the Company's other directors, management and personnel to carry out the Committee's purposes. The Committee is also authorized to retain and terminate at the Company's expense, independent counsel or other advisers selected by the Committee for matters related to the Committee's purposes.

4. Authority and Responsibilities

The Committee shall oversee the Company's financial reporting process on behalf of the Board, and shall have direct responsibility for the oversight of the work of the Auditors and any other registered public accounting firm engaged for the purpose of performing other review or attest services for the Company. The Auditors and each such other registered public accounting firm shall report directly and be accountable to the Committee. The Committee's functions and procedures should remain flexible to address most effectively changing circumstances. To implement the Committee's purpose and policy, the Committee shall be charged with the following functions and processes with the understanding, however, that the Committee may supplement or (except as otherwise required by applicable laws or rules) deviate from these activities as appropriate under the circumstances:

(a) Evaluation and Retention of Auditors. To evaluate the performance of the Auditors, including the lead partner, to assess their qualifications (including their internal quality-control procedures and any material issues raised by that firm's most recent internal quality-control review or any investigations by regulatory authorities) and to determine whether to recommend to the Board the retention or to termination of the engagement of the existing Auditors or the appointment or engagement of a different independent registered public accounting firm.

(b) Communication Prior to Engagement. Prior to engagement of any prospective Auditors, to review a written disclosure by the prospective Auditors of all relationships between the prospective Auditors, or their affiliates, and the Company, or persons in financial oversight roles at the Company, that may reasonably be thought to bear on independence, and to discuss with the prospective Auditors the potential effects of such relationships on the independence of the prospective Auditors, consistent with applicable laws, regulations and accounting rules.

(c) Approval of Audit Engagements. To determine and recommend to the Board the engagement of the Auditors, prior to commencement of such engagement, to perform all proposed audit, review and attest services, including the scope of and plans for the audit, the adequacy of staffing, to determine and recommend to the Board the compensation to be paid, at the Company's expense, to the Auditors and the negotiation and execution, on behalf of the Company, of the Auditors' engagement letters.

(d) Approval of Non-Audit Services. To determine and approve engagements of the Auditors, prior to commencement of such engagements (unless in compliance with exceptions available under applicable laws and rules related to immaterial aggregate amounts of services), to perform any proposed permissible non-audit services, including the scope of the service and the compensation to be paid therefor, at the Company's expense, which approval may be pursuant to preapproval policies and procedures established by the Committee consistent with applicable laws and rules, including the delegation of preapproval authority to one or more Committee members so long as any such preapproval decisions are presented to the full Committee at the next scheduled meeting.

(e) Audit Partner Rotation. To monitor the rotation of the partners of the Auditors on the Company's audit engagement team as required by applicable laws and rules and to consider periodically and, if deemed appropriate, adopt a policy regarding rotation of auditing firms.

(f) Auditor Independence. At least annually, consistent with applicable rules and regulations, to receive and review written disclosures from the Auditors delineating all relationships between the Auditors, or their affiliates, and the Company, or persons in financial oversight roles at the Company, that may reasonably be thought to bear on independence and a letter from the Auditors affirming their independence, to consider and discuss with the Auditors any potential effects of any such relationships on the independence of the Auditors as well as any compensation or services that could affect the Auditors' objectivity and independence, and to assess and otherwise take appropriate action to oversee the independence of the Auditors.

(g) Former Employees of Auditor. To consider and, if deemed appropriate, adopt clear policies regarding Committee preapproval of employment by the Company of individuals employed or formerly employed by the Auditors and engaged on the Company's account.

(h) Audited Financial Statement Review. To review, upon completion of the audit, the financial statements proposed to be included in the Company's public disclosure documents, including financial news releases, management's discussion and analysis, registration statements, annual reports, including on Form 10-K or Form 20-F, as applicable, to be filed on SEDAR and/or with the SEC, management's discussion and analysis and to recommend whether or not such financial statements and other materials should be approved by the Board for disclosure.

(i) Annual Audit Results. To review with management and the Auditors, the results of the annual audit, including the Auditors' assessment of the quality, not just acceptability, of the Company's accounting principles and practices, the Auditors' views about qualitative aspects of the Company's significant accounting practices, the reasonableness of significant judgments and estimates (including material changes in estimates), all known and likely misstatements identified during the audit (other than those the Auditors believe to be trivial), the adequacy of the disclosures in the financial statements and any other matters required to be communicated to the Committee by the Auditors under the standards of the applicable accounting rules.

(j) Auditor Communications. At least annually, to discuss with the Auditors the matters required to be discussed by applicable law, regulations and accounting rules.

(k) Quarterly Results. To review and discuss with management and the Auditors, as appropriate, the results of the Auditors' review of the Company's quarterly financial statements and approve such quarterly financial statements, prior to public disclosure of quarterly financial information or filing of any required disclosure with any securities regulatory authority, including the filing with the SEC of the Company's Quarterly Report on Form 10-Q (if required by SEC rules), and to discuss with the Auditors any other matters required to be communicated to the Committee by the Auditors under generally accepted auditing standards, as appropriate.

(l) Management's Discussion and Analysis. To review and discuss with management and the Auditors, as appropriate, the Company's disclosures contained under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations" in its periodic reports to be filed with the SEC and the disclosure in the "Management's Discussion and Analysis" to be filed with applicable securities regulatory authorities in Canada.

(m) Press Releases. To review and discuss with management and the Auditors, as appropriate, earnings press releases, and press releases containing information relating to material developments as well as the substance of financial information, information relating to material developments and earnings guidance provided to analysts and ratings agencies, which discussions may be general discussions of the type of information to be disclosed or the type of presentation to be made.

(n) Accounting Principles and Policies. To review with management and the Auditors, as appropriate, significant issues that arise regarding accounting principles and financial statement presentation, including critical accounting policies and practices, alternative accounting policies available under international financial reporting standards, in Canada, and generally accepted accounting principles, in the United States, related to material items discussed with management, the potential impact on the Company's financial statements of off-balance sheet structures and any other significant reporting issues and judgments, significant regulatory, legal and accounting initiatives or developments that may have a material impact on the Company's financial statements, compliance programs and policies if, in the judgment of the Committee, such review is necessary or appropriate. To approve, if appropriate, major changes to the Company's accounting principles and practices as suggested by the independent auditors or management and assure that the reasoning is described in determining the appropriateness of changes in accounting principles and disclosures.

(o) Risk Assessment and Management. To review and discuss with management and, as appropriate, the Auditors the Company's guidelines and policies with respect to risk assessment and risk management, including the Company's major financial risk exposures and the steps taken by management to monitor and control these exposures; and to review and discuss with management insurance programs, including director and officer insurance, product liability insurance and general liability insurance (but excluding compensation and benefits-related insurance).

(p) Management Cooperation with Audit. To evaluate the cooperation received by the Auditors during their audit examination, including a review with the Auditors of any significant difficulties encountered during the audit or any restrictions on the scope of their activities or access to required records, data and information and, whether or not resolved, significant disagreements with management and management's response, if any.

(q) Management Letters. To review and discuss with the Auditors and, if appropriate, management, any management or internal control letter issued or, to the extent practicable, proposed to be issued by the Auditors and management's response, if any, to such letter, as well as any additional material written communications between the Auditors and management.

(r) National Office Communications. To review and discuss with the Auditors, as appropriate, communications between the audit team and the Auditors' national office with respect to accounting or auditing issues presented by the engagement.

(s) Disagreements Between Auditors and Management. To review with management and the Auditors, or any other registered public accounting firm engaged to perform review or attest services, any conflicts or disagreements between management and the Auditors, or such other accounting firm, whether or not resolved, regarding financial reporting, accounting practices or policies or other matters, that individually or in the aggregate could be significant to the Company's financial statements or the Auditors' report, and to resolve any conflicts or disagreements regarding financial reporting.

(t) Internal Control Over Financial Reporting. To confer with management and the Auditors, as appropriate, regarding the scope, adequacy and effectiveness of internal control over financial reporting including significant deficiencies or material weaknesses identified by the Company's Auditors. To review with the management and the Auditors any fraud, whether or not material, that includes management or other employees who have any significant role in the Company's internal control over financial reporting and any significant changes in internal controls or other factors that could significantly affect internal controls, including any corrective actions in regard to significant deficiencies or material weaknesses.

(u) Correspondence with Regulators. To consider and review with management, the Auditors, outside counsel, as appropriate, and any special counsel, separate accounting firm or other consultants and advisors as the Committee deems appropriate, any correspondence with regulators or governmental agencies and any published reports that raise material issues regarding the Company's financial statements or accounting policies.

(v) Complaint Procedures. To establish procedures, when and as required by applicable laws and rules, for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters, and to establish such procedures as the Committee may deem appropriate for the receipt, retention and treatment of complaints received by the Company with respect to any other matters that may be directed to the Committee for review and assessment.

(w) Ethical Compliance; Compliance with Legal and Regulatory Requirements. To review the results of management's efforts to monitor compliance with the Company's programs and policies designed to ensure adherence to applicable laws and rules, as well as to its Code of Business Conduct and Ethics, as amended from time to time, and regarding legal matters and compliance with legal and regulatory requirements that may have a material effect on the Company's business, financial statements or compliance policies, including any material reports or inquiries from regulatory or governmental agencies. To review with the Company's counsel, on at least an annual basis, any legal matters that could have a significant impact on the organization's financial statements and the Company's compliance with applicable laws and regulations.

(x) Related-Party Transactions. To review and provide oversight of related-party transactions, as required by applicable securities laws and the rules and regulations of applicable securities regulatory authorities and stock exchanges, in accordance with the Company's Disclosure and Insider Trading Policy and Code of Business Conduct and Ethics.

(y) Engagement of Registered Public Accounting Firms. To determine and recommend to the Board for approval the engagement of any registered public accounting firm (in addition to the Auditors), prior to commencement of such engagement, to perform any other review or attest service, including the recommendation to the Board of the compensation to be paid, at the Company's expense, to such firm and the negotiation and execution, on behalf of the Company, of such firm's engagement letter. To discharge such Auditors when circumstances warrant.

(z) Investment Policy. To review, on a periodic basis, as appropriate, the Company's investment policy and recommend to the Board any changes to the investment policy.

(aa) Investigations. To investigate any matter brought to the attention of the Committee within the scope of its duties if, in the judgment of the Committee, such investigation is necessary or appropriate.

(bb) Hiring Policies of Auditors. To review and approve the Company's hiring policies with respect to partners, employees and former partners and employees of the current and former Auditors of the Company.

(cc) Disclosure. To describe in the Company's annual information form the Committee's composition and responsibilities and how they were discharged.

The approval of this Audit Committee Charter shall be construed as delegation of authority to the Audit Committee with respect to the responsibilities set forth herein.

MANAGEMENT DISCUSSION AND ANALYSIS

DECEMBER 31, 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS

March 27, 2018

This management's discussion and analysis of Aptose Biosciences Inc. ("Aptose", the "Company", "we", "our", "us" and similar expressions) should be read in conjunction with the Company's annual audited financial statements for the year ended December 31, 2017 and the annual information form of the Company for the year ended December 31, 2017 which can be found on SEDAR at www.sedar.com and EDGAR at *www.sec.gov/edgar.shtml.*

All amounts are expressed in United States dollars unless otherwise stated.

CHANGE IN FUNCTIONAL AND REPORTING 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 change in functional currency from Canadian dollars to US dollars is accounted for prospectively from January 1, 2017. 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.

Effective December 31, 2017, we changed our presentation currency to US dollars from Canadian dollars. All amounts included in this document are in US dollars unless disclosed otherwise. The change in reporting currency was accounted for on a retrospective basis as if the US dollar had always been the Company's presentation currency. Accordingly, the financial statements for all the periods presented have been translated to the US dollar. Comparative balances of earnings and cash flows have been translated into US dollars using average exchange rates for the reporting periods. For comparative balances, assets and liabilities have been translated into the presentation currency at the rate of exchange prevailing at the reporting date. Components of equity were translated at the exchange rates prevailing at the dates of the relevant transactions.

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 and maintain 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 ability to accrue appropriate numbers and types of patients;*
- *our ability to file and maintain intellectual property to protect our pharmaceutical assets;*
- *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 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 ability to obtain the substantial capital we require to fund research and operations;*
- *our lack of product revenues and history of operating losses;*
- *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 revenue;*
- *our reliance on external contract research/manufacturing organizations for certain activities;*
- *our ability to recruit patients for clinical trials;*
- *our ability to develop successfully companion diagnostics for our therapeutic product candidates;*
- *our reliance on third parties to conduct and monitor our preclinical studies and our clinical trials;*
- *our ability to attract and retain key personnel;*
- *the proper conduct of our employees;*
- *our ability to expand our business and to find and enter into agreements with potential partners;*
- *results from our clinical trials or studies;*
- *the regulatory approval process;*
- *the progress of our clinical trials;*
- *potential exposure to legal actions and potential need to take action against other entities;*
- *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 our most recent annual information form.*

Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" in our most recent annual information form 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, 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 year ended December 31, 2017 and any subsequent development up until the date hereof.

PROGRAM UPDATES

CG'806

In June 2016, we announced a definitive agreement with South Korean company CrystalGenomics, Inc. ("CG"), granting us 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/pan-BTK inhibitor. We paid US$1.0 million to CG to acquire the option. Should we elect to exercise the option, upon exercise, we would pay an additional US$2.0 million 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 Food and Drug Administration ("FDA"), (ii) first dosage of a human in a clinical trial or (iii) or early June 2018.

CG'806 exhibits a picomolar IC_{50} 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/pan-BTK inhibitor. Further, CG'806 impacts a small group of other relevant oncogenic kinases/pathways (including CSF1R, Aurora kinases ("AURK"), TRK, and the AKT and ERK pathways) that are operative in AML and certain B cell malignancies, but not the TEC, EGFR and ErbB2/4 kinases that are responsible for safety concerns with certain other kinase inhibitors.

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, thereby potentially allowing the agent to become an important therapeutic option for a broader group of this difficult-to-treat AML patient population. The findings that CG'806 targets all forms of FLT3 and other oncogenic pathways, and that CG'806 was well tolerated from a safety perspective during efficacy studies, suggest that CG'806 may also have applicability in treating patients, particularly those over the age of 65, who cannot tolerate other therapies.

Separate from the AML and FLT3 story, overexpression of the BTK enzyme can drive oncogenic signaling 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 3.4 years of therapy. Discontinuation of ibrutinib is due to the development of drug resistance (in particular, patients have malignancies that developed the BTK-C481S mutation), or due to refractory disease (patient tumors did not respond to ibrutinib) or intolerance (side effects led to discontinuation of ibrutinib), according to a study performed at The Ohio State University. The C481S mutation is observed in 5-10% of the patients, while 40-45% of the patients were intolerant or refractory to ibrutinib. 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 (with wild type and C481S BTK) 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. Moreover, in vitro studies demonstrated that CG'806 kills B cell malignancy cell lines on average approximately 1500 times more potently than ibrutinib, and CG'806 demonstrated a high degree of safely in animal efficacy studies. Consequently, patients who are resistant, 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/pathways that drive the survival and proliferation of B cell malignancies.

On May 7, 2017, we presented preclinical data for our pan-FLT3/pan-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, our 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, our 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 4, 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. 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.

On December 11, 2017 at the American Society of Hematology Annual Meeting, we presented with the OHSU Knight Cancer Institute preclinical data demonstrating that CG'806, a pan-FLT3/pan-BTK inhibitor, has broad and potent drug activity against AML, CLL and other hematologic disease subtypes. We also announced the presentation of preclinical data from research led by The University of Texas MD Anderson Cancer Center demonstrating that CG'806 exerts a profound anti-leukemia effect in human and murine leukemia cell lines harboring FLT-3 ITD mutations, mutations that are usually associated with very poor prognoses in leukemia patients. In addition, CG'806 induces apoptosis, or programmed cell death, in AML patient samples by multiple mechanisms and is able to overcome resistance that is seen with other FLT3 inhibitors. The data were highlighted in poster presentations on December 10 and 11, 2017 at the American Society of Hematology Annual Meeting.

On December 26, 2017, we announced that the FDA has granted orphan drug designation to CG'806 for the treatment of patients with AML. Orphan drug designation is granted by the FDA to encourage companies to develop therapies for the treatment of diseases that affect fewer than 200,000 individuals in the United States. Orphan drug status provides research and development tax credits, an opportunity to obtain grant funding, exemption from FDA application fees and other benefits. If CG'806 is approved to treat AML, the orphan drug designation provides Aptose with seven years of marketing exclusivity.

On March 15, 2018, we announced two abstracts related to the mechanistic properties of CG'806 in AML cells and in B cell malignancy cells have been accepted for poster presentations at the upcoming 2018 Annual Meeting of the American Association for Cancer Research (AACR).

We have invested significant time, effort and capital to create a scalable chemical 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. Our efforts to develop the scalable chemical synthetic route have taken longer than anticipated and thus pushed the timeline for the IND submission and initiation of the first-in-human Phase I clinical trial further into the future than we had originally anticipated. We now have solved the synthetic route, can scale the manufacture of API, and now have manufactured and delivered a batch of API which was used for Dose Range Finding Studies that were performed and completed in early January 2018. Currently we are manufacturing a multi-kg batch of GLP grade API (drug substance) for use in GLP toxicology studies. We also reported that we selected the oral formulation that we intend to take into the GLP toxicology studies and the first-in-human clinical trials. In addition, R&D funds are being utilized to support exploratory formulation studies in an ongoing effort to craft superior formulations for CG'806. Provided we are able to manufacture CG'806 for both the non-clinical (GLP) studies and clinical trial, complete the non-clinical studies, and receive a favorable approval from the FDA on our IND submission and continue on the anticipated timeline, we expect to initiate a first-in-human Phase I clinical trial by late 2018. The total direct costs of such activities and to reach the submission of the IND are currently expected to range between US$3 million and US$4.5 million. However any interruptions or additional studies in these activities could cause a delay in the anticipated commencement of the Phase I trial. 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 (likely CLL). As clinical trials are lengthy, complex, costly, and uncertain processes, an estimate of the future costs is not reasonable at this time.

APTO-253

Phase Ib Trial

APTO-253, a small molecule c-Myc inhibitor, was being evaluated by us in a Phase Ib clinical trial in patients with relapsed / refractory hematologic malignancies, particularly AML and high-risk myelodysplastic syndromes ("MDS") before being placed on clinical hold by the FDA in November 2015. If and when the APTO-253 clinical trial is re-initiated, upon completion of the dose-escalation stage of the study and determination of the appropriate dose, the plan would be to enroll additional AML patients for disease-specific single-agent expansion cohorts. For future development, upon selection of a lead hematologic indication from this Phase Ib study, combination of APTO-253 with a standard therapy would be considered.

Clinical Hold and Current Status

As previously disclosed, the Phase Ib trial was placed on clinical hold in order to solve a chemistry-based formulation issue, and the chemistry of the API and the formulation had undergone minor modifications to deliver a stable and soluble drug product for return to the clinical setting. In December 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, the 40L batch that was the intended clinical supply encountered an unanticipated mishap during the filling process that compromised the stability of that batch of drug product. On January 23, 2017, we announced that the root cause and corrective action 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 the manufacturing setback, with the intention of restoring the molecule to a state supporting clinical development and partnering. Formal root cause analyses studies have now been completed and have identified the reason for the drug product stability failure, and we have established a corrective and prevention action plan for the manufacture of future batches of drug product. Given these findings, in February, 2018, we manufactured a new GMP clinical supply of drug product and are in the process of performing studies required to demonstrate the fitness of the drug product for clinical usage, and then we plan to present the findings to the FDA in the second quarter of 2018 with the hope of having the clinical hold removed by the end of the second quarter of 2018 and returning APTO-253 to the clinical trial soon thereafter. The total direct costs of such activities to reach the presentation of the findings to the FDA are currently expected to range between US$1 million and US$1.5 million. Investors are cautioned that there can be no assurance that the FDA will remove the clinical hold.

In the event the clinical hold is removed by the FDA, based on our current estimates and the information available to us at this time, we expect to complete the clinical drug product manufacture, initiate studies to investigate additional drug delivery methods for APTO-253 and to initiate additional non-clinical studies for solid tumor and hematologic development. As preparing, submitting, and advancing applications for regulatory approval, developing drugs and drug product and clinical trials are sometimes complex, costly, and time consuming processes, an estimate of the future costs is not reasonable at this time

Two abstracts related to the mechanistic properties of APTO-253 were submitted to the 2017 Meeting of the American Society of Hematology ("ASH") and these abstracts were published on the ASH website. An additional abstract has been submitted to the 2018 Annual Meeting of the American Association of Cancer Research (AACR) for presentation in April 2018. Finally, two manuscripts related to the mechanism of action of APTO-253 have been accepted for publication and are expected to be published during the second quarter of 2018.

Finally, on March 15, 2018, we announced that one abstract related to the mechanistic properties of APTO-253 was accepted for presentation at the 2018 Annual Meeting of the American Association for Cancer Research.

Multi-Targeting Epigenetic Program

In November 2015, we 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 was responsible for optimizing candidates derived from our collaboration with the Moffitt Cancer Center ("Moffitt"), terminated in January 2017, for the development of dual-targeting single agent inhibitors for the treatment of hematologic and solid tumor cancers and we would own global rights to all newly discovered candidates characterized and optimized under the collaboration, including all generated intellectual property. As of November 2016, LALS and we 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, LALS and Aptose suspended work on the program in January 2017, and the collaboration with LALS was terminated. However, the program delivered novel intellectual property and compelling hit molecules for further optimization.

On March 7, 2018, we entered into an exclusive global license agreement with Ohm Oncology (OHM), an affiliate of LALS that was formed in 2016 to advance the clinical development of compelling molecules derived from the LALS initiative, for the development, manufacture and commercialization of APL-581, as well as related molecules from Aptose's dual bromodomain and extra-terminal domain motif (BET) protein and kinase inhibitor program. Under the agreement, Aptose will retain reacquisition rights to certain molecules, while OHM/LALS will have the rights to develop and sublicense all other molecules. Aptose will receive a nominal upfront cash payment and is eligible to receive up to $125 million of additional payments based on the achievement of certain development, regulatory and sales milestones, as well as significant royalties on future sales generated from the program, if any.

FINANCING ACTIVITIES

Common Shares Purchase Agreement

In October 2017, we entered into a Common Shares Purchase Agreement (the "Purchase Agreement") with Aspire Capital Fund, LLC ("Aspire Capital") to sell up to US $15.5 million of common shares to Aspire Capital. Under the terms of the Purchase Agreement, Aspire Capital has made an initial purchase of 357,143 common shares at a price of $1.40 per share, representing gross proceeds of approximately $500,000 ($324,000 net of share issue costs). Under the terms of the Purchase Agreement, Aspire Capital has committed to purchase up to an aggregate of $15.0 million of our common shares, at our request from time to time during a 30-month period beginning on the effective date of a registration statement related to the transaction and at prices based on the market price at the time of each sale. Under terms of the Purchase Agreement, we also issued 321,429 common shares to Aspire Capital as consideration for Aspire Capital entering into the Purchase Agreement. Subsequent to the year end, we issued an additional 3.2 million common shares under the Purchase agreement for gross proceeds of approximately $8.9 million.

We intend to use this equity arrangement as an additional option to assist us in achieving our capital objectives. The equity line provides us with the opportunity to regularly raise capital at prevailing market prices, at our sole discretion providing us with the ability to better manage our cash resources.

At-The-Market ("ATM") Facility

On April 2, 2015, we entered into an at-the-market equity facility ("ATM Facility") with Cowen and Company, LLC, acting as sole agent. During the year ended December 31, 2017, we issued and sold 10,952,093 common shares through the ATM Facility, raising net proceeds of approximately $13.4 million. Costs associated with the sale of shares under the ATM Facility included a 3% cash commission as well as legal and accounting fees. The ATM Facility expired on December 29, 2017 and, as at that date, the Company had issued a cumulative $20 million of common shares pursuant to the ATM Facility.

April 2014

In April 2014, we completed a public offering of common shares. Aptose issued 4,708,334 common shares at a purchase price of CA$6.00 (CA$0.50 pre-consolidation) per common share, including 541,667 common shares pursuant to the partial exercise of an over-allotment option, for aggregate gross proceeds of $28.3 million. The total costs associated with the transaction were approximately $2.7 million which includes a cash commission of $2.0 million based on 7% of the gross proceeds received as part of the offering.

December 2013

In December 2013, Aptose completed a public offering of common shares. Aptose issued 1,060,833 common shares at a price of CA$6.60 per common share and an additional 159,125 common shares upon the exercise of the overallotment option for aggregate gross proceeds of $8.1 million.

The total costs associated with the transaction were approximately CA$1.1 million which include a cash commission of CA$483 thousand based on 6% of the gross proceeds received as part of the offering, and the issuance of 73,198 broker warrants with an estimated fair value of CA$350 thousand. The fair value of these warrants was determined using the Black Scholes model with a 24 month time to maturity, an assumed volatility of 130% and a risk free interest rate of 1.5%. Each broker warrant was exercisable into one common share of the Company at a price of CA$6.60 for a period of twenty four months following closing of the offering.

WARRANT EXERCISES

During the year ended December 31, 2015, 81,000 Common Share purchase warrants were exercised for proceeds of $279,000. During the year ended December 31, 2016 the remaining warrants from a 2011 financing expired. As at December 31, 2017 there are no outstanding warrants.

LIQUIDITY AND CAPITAL RESOURCES

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

We are an early stage development company and we currently do not earn any revenues from our drug candidates. 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 our liquidity risk, we have considered our available cash and cash equivalents as at December 31, 2017 and our ability to raise further capital through the use of the Purchase Agreement with Aspire Capital in assessing whether we will have sufficient resources to fund research and development operations through to at least the twelve month period ending December 31, 2018. As at December 31, 2017 we had $11.4 million of cash and cash equivalents and investments. Subsequent to year end and to the date of this report, we issued 3.2 million common shares to Aspire Capital under the Purchase Agreement for gross proceeds of approximately $8.9 million. We have a further 2.2 million available common shares and $6.1 million available under the Purchase Agreement.

CASH POSITION

The following table presents our cash and cash equivalent, investments and working capital as at December 31, 2017, December 31, 2016, and December 2015. (the amounts reported in the table below for the years ended December 31, 2016 and 2015, have been recast to US dollars).

(in thousands)	**Balances at December 31, 2017**	Balances at December 31, 2016	Balances at December 31, 2015
Cash and cash equivalents	**$ 10,631**	$ 7,940	$ 8,311
Investments	**798**	-	5,957
Total	**$ 11,429**	$ 7,940	$ 14,268
Working capital	**$ 10,060**	$ 7,115	$ 13,338

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.

Working capital represents primarily cash, cash equivalents, investments and other current assets less current liabilities.

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.

SELECTED ANNUAL FINANCIAL DATA

The following selected consolidated financial data have been derived from, and should be read in conjunction with, the accompanying audited consolidated financial statements for the year ended December 31, 2017 (the "Financial Statements") which are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board.

Consolidated Statements of Loss and Comprehensive Loss[1]

(amounts in US thousands except for per common share data)	Year ended December 31, 2017	Year ended December 31, 2016	Year ended December 31, 2015
REVENUE	**$ —**	$ —	$ —
EXPENSES			
Research and development	**6,274**	**7,834**	**4,865**
General and administrative	**5,552**	**6,439**	**7,992**
Operating expenses	**11,826**	**14,273**	**12,857**
Finance expense	**-**	**46**	**34**
Finance income	**(165)**	**(79)**	**(1,180)**
Net finance expense (income)	**(165)**	**(33)**	**(1,146)**
Net loss and total comprehensive loss for the period	**(11,661)**	**(14,240)**	**(11,711)**
Basic and diluted loss per common share	**$ (0.52)**	**$ (1.12)**	**$ (0.98)**
Weighted average number of common shares outstanding used in the calculation of: Basic and diluted loss per share	**22,313**	**12,743**	**11,906**
Total Assets	**$ 11,967**	**$ 8,646**	**$ 15,353**
Total Long-term Liabilities	**$ —**	$ -	$ -

(1) The amounts reported in the table above for the years ended December 31, 2016 and 2015, have been recast to US dollars.

RESULTS OF OPERATIONS

The decrease in the net loss during the year ended December 31, 2017 compared with the year ended December 31, 2016 results mostly from our decision in January 2017 to refocus our resources on our CG'806 development program and towards determining the root cause of the manufacturing issue with the APTO-253 program. Expenses were lower due to the cancellation of the LALS/Moffitt collaboration, lower costs associated with the APTO-253 program, and offset by increased development activities related to the CG'806 development program which were nominal in comparable periods, other than the license fee that was paid in June 2016 to acquire an option on the technology.

Research and Development

Components of research and development expenses

The research and development expenses for the years ended December 31, 2017, 2016 and 2015 are as follows:

(in thousands)	**2017**	2016[1]	2015[1]
CrystalGenomics Option Fee	**$ -**	$ 1,000	$ -
Program costs – CG '806	**2,245**	394	-
Program costs – APTO-253	**2,328**	3,340	2,928
Program costs – LALS/Moffitt	**-**	1,126	203
Salaries	**1,451**	1,691	1,528
Stock-based compensation	**214**	247	183
Depreciation of equipment	**36**	36	23
	$ 6,274	$ 7,834	$ 4,865

(1) The amounts reported in the table below for the years ended December 31, 2016 and 2015, have been recast to US dollars:

The CG'806 program was licensed into the Company in June of 2016. Including the license fee, total program costs from inception to December 31, 2017 are approximately $3.6 million.

From June 1, 2014, being the beginning of the fiscal year when APTO-253 was redirected from solid tumor indications to hematologic malignancies to December 31, 2017, direct program costs relating to the research and development of APTO-253 represented approximately $9.8 million.

The changes in research and development expenses in the year ended December 31, 2017 as compared to the year ended December 31, 2016 result from the following:

- In the comparative period, we paid $1.0 million to CG for an option fee related to the CG'806 technology and in that period began research and development activities for this program.
- An increase in research and development activities related to our CG'806 development program. Activities in the current year ended December 31, 2017 included formulation studies and PK studies and the manufacturing of a first batch of the drug substance to be used in dose range finding studies, the initiation of the dose range finding studies, and the initiation of the manufacturing of a GLP batch of drug substance to be used in the toxicity studies. CG'806 program expenses were nominal in the comparative period as the technology was licensed to us in June 2016;
- Reduced expenditures on the APTO-253 program. In the year ended December 31, 2017, we completed the root cause analysis and determined the cause of the manufacturing issue, established a Corrective and Prevention Action (CAPA) plan to ensure the clinical supply can be manufactured in a reliable manner, and the initiation of manufacturing of a new clinical supply. In the comparative period, we were actively manufacturing a clinical batch and preparing to return APTO-253 to the clinic; and
- Savings from cancellation of the LALS/Moffitt collaboration which was active in the year ended December 31, 2016. There are no costs related to this program in the year ended December 31, 2017.

Expenditures for the year ended December 31, 2016 increased significantly over the year ended December 31, 2015 due to the following reasons:

- Research and development activities in support of the CG'806 program, including the $1 million option fee paid;
- Costs associated with the LALS/Moffitt collaboration developing epigenetic single molecule inhibitors of multiple targets, including the BET proteins, and other kinases for which no comparable expenses existed in the prior year periods;
- Increased research and clinical operations headcount and related costs;
- Formulation and manufacturing costs associated with APTO-253 and the root cause analysis of the filter clogging identified in November 2015; and
- Increased Contract Research Organization costs related to consultants and advisors as we work towards returning APTO-253 to the clinic.

General and Administrative

Components of general and administrative expenses

The general and administrative expenses for the years ended December 31, 2017, 2016 and 2015 are as follows:

		Year ended December 31,		
(in thousands)	**2017**	2016[1]	2015[1]
General and administrative excluding salaries	**$**	**2,610**	$	2,566	$	3,377
Salaries		**2,290**		2,334		2,246
Stock-based compensation		**602**		1,459		2,317
Depreciation of equipment		**50**		80		52
	$	**5,552**	$	6,439	$	1,932

(1) The amounts reported in the table above for the years ended December 31, 2016 and 2015, have been recast to US dollars.

The changes in general and administrative expenses in the year ended December 31, 2017 as compared to the year ended December 31, 2016 result from the following:

- General and administrative expenses excluding salaries, decreased slightly in the year ended December 31, 2017, compared with the year ended December 31, 2016. The decrease is mostly the result of lower travel costs, consulting and rent costs in the first six months of the fiscal year related to cost containment initiatives taken in the prior fiscal year and offset by higher investor relations, professional fees and travel costs in the three months ended December 31, 2017.

- Salaries expenses in the year ended December 31, 2017, were slightly lower in comparison with year ended December 31, 2016. Savings from reduced headcount were offset by a higher bonus recognized in the current period.
- Stock-based compensation decreased in the year ended December 31, 2017, compared with the year ended December 31, 2016, due to large forfeitures in the three months ended March 31, 2017 and also due to grants in the prior periods having a greater fair value than the grants issued in the year ended December 31, 2017, and therefore contributing to higher stock-based compensation in the year ended December 31, 2016.

The changes in general and administrative expenses in the year ended December 31, 2016 as compared to the year ended December 31, 2015 result from the following:

- General and administrative expenses excluding salaries, decreased in the year ended December 31, 2016 compared with the year ended December 31, 2015. The decrease is the result of lower travel, consulting and legal costs in the current year related to transactions completed in the prior year as well as lower press release and filing costs associated with a lower cost service provider in the year ended December 31, 2016.
- Salary charges in the year ended December 31, 2016 increased in comparison with the year ended December 31, 2015 due to additional headcount in the first half of 2016 compared with the first half of 2015.
- Stock-based compensation decreased in the year ended December 31, 2016 compared with the year ended December 31, 2015 due to large option grants in April, June and July 2014 which vested 50% during the first year and therefore contribute to higher stock-based compensation expense during the first twelve month period captured in the prior year period.

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 except that the amounts reported in the table above for the quarters ending March 31, 2016 through to September 30, 2017 have been recast to US dollars.

(Amounts in 000's except for per common share data)	**Q4 Dec 31, 2017**	**Q3 Sept 30, 2017**	**Q2 June 30, 2017**	**Q1 Mar 31, 2017**	**Q4 Dec 31, 2016**	**Q3 Sept 30, 2016**	**Q2 June 30, 2016**	**Q1 Mar 31, 2016**
Revenue	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Research and development expense	2,061	1,390	1,088	1,735	1,917	1,663	2,563	1,691
General and administrative expense	1,250	1,319	1,393	1,590	1,115	1,502	1,864	1,958
Net loss	(3,288)	(2,640)	(2,441)	(3,292)	(2,969)	(3,105)	(4,408)	(3,758)
Basic and diluted net loss per share	($ 0.12)	($ 0.11)	($ 0.11)	($ 0.19)	($ 0.23)	($ 0.24)	($ 0.36)	($ 0.31)
Cash (used in) operating activities	$ (2,905)	$ (2,092)	$ (2,641)	$ (2,653)	$ (2,510)	$ (3,277)	$ (3,607)	$ (3,299)

Changes in research and development expenses follow the activities and stages of development of our 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, there is an increase in expenses due to the $1.0 million option fee paid to CG as previously described herein. A decrease in research and development expenses in the first three quarters of 2017 reflect our decision to refocus our resources towards CG'806. R&D expenses increased in the last quarter of this year related to higher costs of the CG'806 program as well as manufacturing costs for GMP batch of APTO-253 as we prepare for the possibility of returning APTO-253 to the clinic.

Changes in general and administrative costs over time result mostly from changes in headcount, the granting of stock options and decisions by us to engage in certain corporate projects. Specific activities that had significant impacts on the expenses incurred for individual periods are as follows: 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. Higher salaries expense related to severance and separation payments made in the period are offset by lower stock option compensation. Lower expenses in the quarters ended June 30 and September 30, 2017 and December 31, 2017 reflect mostly lower stock option compensation.

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

THREE MONTHS ENDED DECEMBER 31, 2017 AND 2016 (UNAUDITED)

(in thousands)		Three months ended December 31, 2017		2016[1]
Revenues	**$**	**-**	$	-
Research and development expenses		**2,061**		1,917
General and administrative expenses		**1,250**		1,115
Net finance income (loss)		**(23)**		(63)
Net loss for the period		**(3,288)**		(2,969)
Basic and diluted loss per common share	**$**	**(0.12)**	$	(0.23)

(1) The amounts reported in the table above for the three months ended December 31, 2016, have been recast to US dollars.

The research and development expenses for the three months ended December 31, 2017 and 2016 are as follows:

(in thousands)		Three months ended December 31, 2017		2016[1]
CrystalGenomics Option Fee	**$**	**-**	$	-
Program costs – CG '806		**843**		315
Program costs – APTO-253		**774**		1,073
Program costs – LALS/Moffitt		**-**		147
Salaries		**387**		325
Stock-based compensation		**48**		48
Depreciation of equipment		**9**		9
	$	**2,061**	$	1,917

(1) The amounts reported in the table above for the three months ended December 31, 2016, have been recast to US dollars

The changes in research and development expenses in the three months ended December 31, 2017 as compared to the three months ended December 31, 2016 result from the following:

- An increase in R&D activities on our CG'806 program as described above;
- A decrease in R&D activities on our APTO-253 program as described above;
- Savings from cancellation of the LALS/Moffitt collaboration as described above;
- Higher salaries expense mostly related to additional clinical research staff hired at the end of the year to prepare for returning APTO-253 to the clinic.

The general and administrative expenses for the three months ended December 31, 2017 and 2016 are as follows:

(in thousands)		Three months ended December 31, 2017		2016[1]
General and administrative excluding salaries	**$**	**630**	$	542
Salaries		**506**		329
Stock-based compensation		**104**		211
Depreciation of equipment		**10**		33
	$	**1,250**	$	1,115

(1) The amounts reported in the table above for the three months ended December 31, 2016, have been recast to US dollars

The changes in general and administrative expenses in the three months ended December 31, 2017 as compared to the three months ended December 31, 2016 result from the following:

- higher investor relations, professional fees and travel costs in the three months ended December 31, 2017
- higher salaries related mostly to a bonus adjustment in the comparative period
- stock option grants issued in the current year with a lower grant date fair value than the comparative period.

RELATED PARTY TRANSACTIONS

In March 2015, we entered into an agreement with the Moores Cancer Center at the University of California San Diego (UCSD) to provide us with pharmacology lab services. Dr. Stephen Howell serves as our Acting Chief Medical Officer and holds a faculty position as a Distinguished Professor of Medicine at UCSD and oversees the laboratory work. The research services were provided for an annual fee of $154,456 to be paid to UCSD in monthly installments. This research services agreement was approved by our 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 $200,000. In May 2017, we entered into another agreement with UCSD for an additional twelve month period for an annual fee of $300,000. In March 2018, the Board approved and extension of this agreement for a further twelve months for the same annual fee of $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.

See note 14 to the audited financial statements for disclosures of key management personnel compensation and directors' compensation.

CONTRACTUAL OBLIGATIONS AND OFF-BALANCE SHEET FINANCING

At December 31, 2017, we had contractual obligations requiring annual payments as follows:

	Less than 1 year	1 – 3 years	3 – 5 years	Greater than 5 years	Total
Operating leases	$ 225	$ 410	$ 433	$ 289	$ 1,357

We have entered into various contracts with service providers with respect to the clinical development of APTO-253 and for our CG'806 development program. These contracts will result in future payments commitments of up to $4 million.

As at December 31, 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.

Under the license agreement with CrystalGenomics, the Company has an option to pay $2.0 million in cash or combination of cash and common shares, for the 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 Food and Drug Administration ("FDA"), (ii) first dosage of a human in a clinical trial or (iii) or early June 2018. In addition, under the terms of the license agreement, there are development milestones on the initiation of Phase 2 and pivotal clinical trial of $16 million, and regulatory milestones totaling $44 million. The Company also has an obligation to pay royalty payments on sales of commercialized product. Milestone and royalty payments that may become due are dependent on, among other factors, clinical trials, regulatory approvals and ultimately the successful development of a new drug, the outcome and timing of which is uncertain.

FINANCIAL INSTRUMENTS

(a) Financial instruments

	As at December 31,	
(in thousands)	2017	2016[1]
Financial assets		
Cash and cash equivalents, consisting of high interest savings accounts and short term deposits	$ 10,631	$ 7,940
Investments, consisting of fixed income securities	798	2,246
Financial liabilities		
Accounts payable and accrued liabilities	1,765	1,318

(1) The amounts reported in the table above for the year ended December 31, 2016, have been recast to US dollars

At December 31, 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. The Company manages credit risk associated with its cash and cash equivalents and investments by maintaining minimum standards of R1-low or A-low investments and the Company invests only in highly rated Canadian corporations which are capable of prompt liquidation. The Company manages its liquidity risk by continuously monitoring forecasts and actual cash flows. 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. 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 an impact on the Company's results. The Company does not have any forward exchange contracts to hedge this risk.
See note 8 to the audited financial statements for expanded disclosure of each risk and the Company's management of same.

(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.

In March 2018, Aptose filed a short form base shelf prospectus (the "Base Shelf") that qualifies for the distribution of up to $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 the Company with additional flexibility when managing 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.

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 December 31, 2017.

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, we have reviewed our 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.

Change in Functional and Reporting Currency

Effective January 1, 2017, we changed our functional currency to US dollars given the prevalence of US dollar denominated activities over time. Since our 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, we gradually transitioned most of our research and development activities, including both headcount and studies, to the US and completed this transition in January 2017. The change in functional currency from Canadian dollars to US dollars is accounted for prospectively from January 1, 2017. 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.

Historically, our sources of financing, with the exception of the recent ATM Facility and Purchase Agreement, have been in Canadian dollars and we have had a majority of our shareholders in Canada. Therefore, we chose to keep our presentation currency in Canadian dollars at the time of changing our functional currency.

Effective December 31, 2017 we changed our reporting currency to US dollars to align our reporting currency with the functional currency. At the date of this report, most of the Company's shareholders are now in the US and most of the trading of the Company's shares are traded on the Nasdaq Capital Market. The Company applied the change retrospectively as if the US dollar had always been the Company's presentation currency. Accordingly, the financial statements for all the periods presented have been translated to the US dollar. Comparative balances of earnings and cash flows have been translated into US dollars using average exchange rates for the reporting periods. For comparative balances, assets and liabilities have been translated into the presentation currency at the rate of exchange prevailing at the reporting date. Components of equity were translated at the exchange rates prevailing at the dates of the relevant transactions. The cumulative impact of the change in reporting currency was a loss of $4,298 in accumulated other comprehensive income as at December 31, 2016.

Significant accounting judgments and estimates

Management's assessment of our 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.

Other important accounting policies and estimates made by management are the valuation of tax accounts, the valuation of contingent liabilities, and the assumptions used in determining the valuation of share-based compensation. These are described in note 3 of the audited financial statements for the year ended December 31, 2017.

RECENT ACCOUNTING PRONOUNCEMENTS NOT YET ADOPTED

IFRS 9, Financial Instruments ("IFRS 9"):

IFRS 9 (2014) introduces new requirements for the classification and measurement of financial assets. Under IFRS 9 (2014), financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows. The standard introduces additional changes relating to financial liabilities and also amends the impairment model by introducing a new 'expected credit loss' model for calculating impairment. IFRS 9 (2014) also includes a new general hedge accounting standard which aligns hedge accounting more closely with risk management. The Company intends to adopt IFRS 9 (2014) in its consolidated financial statements for the annual period beginning on January 1, 2018. The Company expects that the adoption of this policy will not have a material impact on its financial results as most of its financial assets are cash and cash equivalents and highly liquid investments. The Company does not enter into any hedging activities.

IFRS 16, Leases ("IFRS 16")

On January 13, 2016, the IASB issued IFRS 16. The new standard is effective for annual periods beginning on or after January 1, 2019. Earlier application is permitted for entities that apply IFRS 15 *Revenue from Contracts with Customers* at or before the date of initial adoption of IFRS 16. IFRS 16 will replace IAS 17 *Leases*. This standard introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. The extent of the impact of adoption of the standard has not yet been determined.

EXPECTED CHANGE IN ISSUER'S GAAP

The Company expects that effective December 31, 2018 it will become an SEC foreign issuer, and no longer a foreign private issuer, and as a result will have to prepare its December 31, 2018 annual financial statements in accordance with US GAAP, with such change being applied retrospectively. The extent of the impact of adoption of the standard has not yet been determined. The Company will report its first, second and third quarterly for 2018 results under IFRS as issued by the International Accounting Standards Board, and will provide further guidance over the year on the impacts of converting to US GAAP.

Accordingly, should the Company become an SEC foreign issuer, the Company will adopt the FASB guidance for lease accounting and not IFRS guidance.

OUTLOOK

Until one of our drug candidates receives regulatory approval and is successfully commercialized, we 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 our 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 risk factors in the our most recently filed annual information form, 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.

EVALUATION OF DISCLOSURE CONTROLS AND INTERNAL CONTROLS

The Company has implemented a system of internal controls that it believes adequately protects the assets of the Company and is appropriate for the nature of its business and the size of its operations. Our internal control system was designed to provide reasonable assurance that all transactions are accurately recorded, that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS as issued by the IASB, and that our assets are safeguarded. These internal controls include disclosure controls and procedures designed to ensure that information required to be disclosed by the Company is accumulated and communicated as appropriate to allow timely decisions regarding required disclosure.

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting means a process designed by or under the supervision of the Chief Executive Officer and the Chief Financial Officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS as issued by the IASB. The internal controls are not expected to prevent and detect all misstatements due to error or fraud.

There were no changes in our internal control over financial reporting that occurred during the year ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting

As of December 31, 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 March 27, 2018, we had 30,7 02,053 common shares issued and outstanding. In addition there were 4,401,840 common shares issuable upon the exercise of outstanding stock options.

ADDITIONAL INFORMATION

Additional information relating to us, including our December 31, 2017 annual information form and other disclosure documents, are available on EDGAR at www.sec.gov/edgar.shtml and on SEDAR at www.sedar.com.

Consolidated Financial Statements of

APTOSE BIOSCIENCES INC.

Years ended December 31, 2017, 2016 and 2015

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Aptose Biosciences Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Aptose Biosciences Inc. (the "Company") as of December 31, 2017 and December 31, 2016, the related consolidated statements of loss and comprehensive loss, changes in shareholders' equity and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements").

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and December 31, 2016, and its financial performance and its cash flows for the years then ended, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Change in Accounting Principle

Without qualifying our opinion on the financial statements, we draw attention to Note 2b to the financial statements, which indicates that the Company has changed its functional and presentation currency from Canadian dollar to US dollar. The change in functional currency is as of January 1, 2017. The change in presentation currency is as of December 31, 2017, and this change has been retrospectively applied in the financial statements.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits.

We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB and in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada.

We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purposes of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

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

KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants
Vaughan, Canada
March 27, 2018

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

	December 31, 2017	December 31, 2016 (as recast–note 3(b))	January 1, 2016 (as recast–note 3(b))
Assets			
Current assets:			
Cash and cash equivalents (note 4(a))	$ 10,631	$ 7,940	$ 8,311
Investments (note 4(b))	798	-	5,957
Prepaid expenses and other assets	396	493	771
Total current assets	11,825	8,433	15,039
Non-current assets:			
Property and equipment (note 5)	142	213	314
Total non-current assets	142	213	314
Total assets	$ 11,967	$ 8,646	$ 15,353
Liabilities and Shareholder's Equity			
Current liabilities:			
Accounts payable and accrued liabilities	$ 1,765	$ 1,318	$ 1,702
Total current liabilities	1,765	1,318	1,702
Shareholders' equity:			
Share capital (note 9):			
Common shares	231,923	218,034	212,308
Stock options (note 10)	6,456	7,306	5,740
Contributed surplus (note 9(d))	22,909	21,413	21,188
Warrants (note 9(c))	-	-	85
Accumulated other comprehensive loss	(4,298)	(4,298)	(4,783)
Deficit	(246,788)	(235,127)	(220,887)
Total shareholders' equity	10,202	7,328	13,651
Total liabilities and shareholders' equity	$ 11,967	$ 8,646	$ 15,353

See accompanying notes to consolidated financial statements.

Commitments, contingencies and guarantees (note 15)
Subsequent events (note 18)

On behalf of the Board:

/s/ Warren Whitehead	Director
/s/ William G. Rice	Director

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

	Year ended December 31, 2017	Year ended December 31, 2016 (as recast – note 3(b))	Year ended December 31, 2015 (as recast – note 3(b))
Revenue	$ -	$ -	$ -
Expenses:			
Research and development (notes 11)	6,274	7,834	4,865
General and administrative (note 12)	5,552	6,439	7,992
Operating Expenses	11,826	14,273	12,857
Finance expense (note 13)	-	46	34
Finance income (note 13)	(165)	(79)	(1,180)
Net finance income	(165)	(33)	(1,146)
Net loss for the year	(11,661)	(14,240)	(11,711)
Other comprehensive loss			
Foreign currency translation gain (loss) (note 3(b))	-	485	(3,519)
Comprehensive loss for the year	$ (11,661)	$ (13,755)	$ (15,230)
Basic and diluted loss per common share	$ (0.52)	$ (1.12)	$ (0.98)
Weighted average number of common shares outstanding used in the calculation of (in thousands) (note 9(e)):			
Basic and diluted loss per common share	22,313	12,743	11,906

See accompanying notes to consolidated financial statements.

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

Years ended December 31, 2017, 2016 and 2015

	Share Capital (note 9)	Stock options (note 10)	Warrants	Contributed surplus	Equity portion of debt	Accumulated other comprehensive loss	Deficit	Total
Balance, December 31, 2016	$ 218,034	$ 7,306	$ -	$ 21,413	$ -	$ (4,298)	$ (235,127)	$ 7,328
Common shares issued under the ATM (note 9(b)(ii))	13,394	-	-	-	-	-	-	13,394
Common shares issued pursuant to purchase agreement (note 9(b)(i))	324	-	-	-	-	-	-	324
Shares issued on redemption of restricted share units	171	(171)	-	-	-	-	-	-
Stock-based compensation	-	817	-	-	-	-	-	817
Expiry of stock options		(1,496)		1,496				
Net loss for the year	-	-	-	-	-	-	(11,661)	(11,661)
Balance, December 31, 2017	$ 231,923	$ 6,456	$ -	$ 22,909	$ -	$ (4,298)	$ (246,788)	$ 10,202
Balance, December 31, 2015 *(as recast –(note 3(b))*	$ 212,308	$ 5,740	$ 85	$ 21,188	$ -	$ (4,783)	$ (220,887)	$ 13,651
Common shares issued under the ATM (note 9(b)(ii))	5,726	-	-	-	-	-	-	5,726
Expiry of Warrants	-	-	(85)	85	-	-	-	-
Stock-based compensation	-	1,706	-	-	-	-	-	1,706
Translation adjustment	-	-	-	-	-	485	-	485
Expiry of stock options	-	(140)		140	-	-	-	-
Net loss for the year	-	-	-	-	-		(14,240)	(14,240)
Balance, December 31, 2016	$ 218,034	$ 7,306	$ -	$ 21,413	$ -	$ (4,298)	$ (235,127)	$ 7,328

See accompanying notes to consolidated financial statements

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

Years ended December 31, 2017, 2016 and 2015

	Share Capital (note 9)	Stock options (note 10)	Warrants	Contributed surplus	Equity portion of debt	Accumulated other comprehensive income	Deficit	Total
Balance, December 31, 2014 *(as recast – note 3(b))*	$ 210,454	$ 3,861	$ 485	$ 20,820	$ 53	(1,264)	$ (209,176)	$ 25,233
Exercise of warrants (note 9(c))	429	-	(150)	-	-	-	-	279
Exercise of stock options	1,075	(556)	-	-	-	-	-	519
Conversion of promissory notes(note 7)	342	-	-	53	(53)	-	-	342
Common shares issued under the ATM (note 9(b)(i))	8	-	-	-	-	-	-	8
Expiry of warrants	-		(250)	250	-	-	-	-
Stock-based compensation	-	2,500	-	-	-	-	-	2,500
Expiry of stock options	-	(65)	-	65	-	-	-	-
Translation adjustment	-	-	-	-	-	(3,519)	-	(3.519)
Net loss for the year	-	-	-	-	-		(11,711)	(11,711)
Balance, December 31, 2015	$ 212,308	$ 5,740	$ 85	$ 21,188	$ -	$ (4,783)	$ (220,887)	$ 13,651

See accompanying notes to consolidated financial statements.

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

	Year ended December 31, 2017	Year ended December 31, 2016 (as recast – note 3(b))	Year ended December 31, 2015 (as recast – note 3(b))
Cash flows from operating activities:			
Net loss for the year	$ (11,661)	$ (14,240)	$ (11,711)
Items not involving cash:			
Stock-based compensation	817	1,706	2,500
Depreciation and amortization	84	116	75
Interest income	(68)	(79)	(226)
Unrealized foreign exchange loss	(7)	233	(726)
Interest and accretion expense	-	-	34
Change in non-cash operating working capital (note 6)	544	(126)	163
Cash used in operating activities	(10,291)	(12,390)	(9,891)
Cash flows from financing activities:			
Issuance of common shares under the ATM, net of issuance costs (note 9(b)(ii))	13,394	5,726	8
Issuance of common shares under share purchase agreement, net of issuance costs (note 9(b)(i))	324	-	-
Exercise of warrants, options and DSU's (note 9)	-	-	798
Interest paid on notes and loans	-	-	(21)
Cash provided by financing activities	13,718	5,726	785
Cash flows from (used in) investing activities:			
Maturity (acquisition) of investments	(798)	6,401	6,205
Purchase of equipment	(13)	(3)	(258)
Interest received	68	79	226
Cash provided by (used in) investing activities	(743)	6,477	6,173
Effect of exchange rate fluctuations on cash and cash equivalents held	7	(184)	(1,139)
Increase (decrease) in cash and cash equivalents	2,691	(371)	(4,072)
Cash and cash equivalents, beginning of year	7,940	8,311	12,383
Cash and cash equivalents, end of year	$ 10,631	$ 7,940	$ 8,311

Supplemental cash flow information (note 6)

See accompanying notes to consolidated financial statements.

1. Reporting entity:

Aptose Biosciences Inc. ("Aptose" or the "Company") is a clinical-stage biotechnology company committed to discovering and developing personalized therapies addressing unmet medical needs in oncology. 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, Mississauga, Ontario, Canada, L4V 1R9.

2. Basis of presentation:

(a) Statement of compliance:

These consolidated financial statements of the Company and its subsidiaries are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). The consolidated financial statements of the Company were approved and authorized for issue by the Board of Directors on March 27, 2018.

(b) Functional and presentation currency:

The functional and presentation currency of the Company is the US dollar.

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. See note 3(b) for a description of the change of the accounting policy.

Effective December 31, 2017, the Company changed its presentation currency to the US dollar to match the volume of trading of its common shares, which is mostly on the Nasdaq Capital Market. See note 3(b) for a description of the change of the accounting policy.

(c) Significant accounting judgments, estimates and assumptions:

The preparation of these consolidated 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 consolidated financial statements and reported amounts of revenue and expenses during the reporting period. Actual outcomes could differ from those estimates. The consolidated financial statements include estimates, which, by their nature, are uncertain.

2. Basis of presentation (continued):

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 8 (b) (ii) for a discussion of the factors considered by management in arriving at its assessment.

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

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

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 include:

(i) Valuation of contingent liabilities:

The Company utilizes considerable judgment in the measurement and recognition of provisions and the Company's exposure to contingent liabilities. Judgment is required to assess and determine the likelihood that any potential or pending litigation or any and all potential claims against the Company may be successful. The Company must estimate if an obligation is probable as well as quantify the possible economic cost of any claim or contingent liability. Such judgments and assumptions are inherently uncertain. The increase or decrease of one of these assumptions could materially increase or decrease the fair value of the liability and the associated expense.

(ii) Valuation of tax accounts:

Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Currently, the Company has deductible temporary differences which would create a deferred tax asset. Deferred tax assets are recognized for all deductible temporary differences to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences can be utilized. Management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies. To date, the Company has determined that none of its deferred tax assets should be recognized. The Company's deferred tax assets are mainly comprised of its net operating losses from prior years and prior year research and development expenses not yet deducted for income tax purposes. These tax pools relate to entities that have a history of losses, have varying expiry dates, and may not be used to offset taxable income. As well, there are no taxable temporary differences or any tax planning opportunities available that could partly support the recognition of these losses as deferred tax assets. The generation of future taxable income could result in the recognition of some portion or all of the remaining benefits, which could result in an improvement in the Company's results of operations through the recovery of future income taxes.

2. Basis of presentation (continued):

(iii) Valuation of share-based compensation and share purchase warrants:

Management measures the costs for share-based payments and share purchase warrants using market-based option valuation techniques. Assumptions are made and judgment is used in applying valuation techniques. These assumptions and judgments include estimating the future volatility of the share price, expected dividend yield, and expected life of the options. Such judgments and assumptions are inherently uncertain. The increase or decrease of one of these assumptions could materially increase or decrease the fair value of share-based payments and share purchase warrants issued and the associated expense.

3. Significant accounting policies

(a) Basis of consolidation:

The consolidated financial statements include the accounts of the Company its 80% owned subsidiary, NuChem Pharmaceuticals Inc. ("NuChem"), its 100% owned subsidiaries Aptose Biosciences Inc. USA ("Aptose USA") and Aptose Suisse GmbH ("Aptose Suisse"). A subsidiary is an entity over which the Company has control, being the power to govern the financial and operating policies of the investee entity so as to obtain benefits from its activities. Accounting policies of the subsidiaries are consistent with the Company's accounting policies. All intra group transactions, balances, revenue and expenses are eliminated on consolidation.

(b) Presentation and functional currency:

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. 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.

3. Significant accounting policies (continued):

Effective December 31, 2017, the Company changed is reporting currency to US dollars. The Company followed the guidance in IAS 21, The Effects of Changes in foreign Exchange Rates ("IAS 21") and has applied the change retrospectively as if the US dollar had always been the Company's presentation currency. Accordingly, the financial statements for all the periods presented have been translated to the US dollar. Comparative balances of earnings and cash flows have been translated into US dollars using average exchange rates for the reporting periods. For comparative balances, assets and liabilities have been translated into the presentation currency at the rate of exchange prevailing at the reporting date. Components of equity have been translated at the exchange rates prevailing at the dates of the relevant transactions. The exchange rate differences arising on translation are taken to accumulated other comprehensive income. The cumulative impact of the change in reporting currency was a loss of $4,298 in accumulated other comprehensive income as at December 31, 2016.

(Tabular amounts in thousands of United States dollars, except per share amounts)

3. Significant accounting policies (continued):

The following table presents the recasting of the statements of financial position from Canadian dollars to US dollars.

Consolidated Statements of Financial Position	December 31, 2016		January 1, 2016	
	Canadian dollars	US dollars	Canadian dollars	US dollars
Assets				
Current assets:				
Cash and cash equivalents	$ 10,662	$ 7,940	$ 11,503	$ 8,311
Investments	-	-	8,245	5,957
Prepaid expenses and other assets	663	493	1,067	771
Total current assets	11,325	8,433	20,815	15,039
Non-current assets:				
Equipment and intangibles	285	213	434	314
Total non-current assets	285		434	314
Total assets	$ 11,610	8,646	$ 21,249	$ 15,353
Liabilities and Shareholder's Equity				
Current liabilities:				
Accounts payable and accrued liabilities	$ 1,770	$ 1,318	$ 2,356	$ 1,702
Total current liabilities	1,770	1,318	2,356	1,702
Shareholders' equity:				
Share capital :				
Common shares	230,976	218,034	223,425	212,308
Stock options	8,133	7,306	6,256	5,740
Contributed surplus	22,267	21,413	22,037	21,188
Warrants	-	-	84	85
Accumulated other comprehensive income	-	(4,298)	-	(4,783)
Deficit	(251,536)	(235,127)	(232,909)	(220,887)
Total shareholders' equity	9,840	7,328	18,893	13,651
Total liabilities and shareholders' equity	$ 11,610	$ 8,646	$ 21,249	$ 15,353

3. Significant accounting policies (continued):

The following table presents the recasting of the consolidated statements of loss and comprehensive loss from Canadian dollars to US dollars for the years ended December 31, 2016 and 2015:

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

	Year ended December 31, 2016		Year ended December 31, 2015	
	Canadian dollars	US dollars	Canadian dollars	US dollars
Revenue	$ -	$ -	-	$ -
Expenses:				
Research and development	10,322	7,834	6,254	4,865
General and administrative	8,344	6,439	9,845	7,992
	18,666	14,273	16,099	12,857
Finance expense	66	46	43	34
Finance income	(105)	(79)	(1,516)	(1,180)
Net finance (income) expense	(39)	(33)	(1,473)	(1,146)
Net loss for the year	$ (18,627)	(14,240)	(14,626)	$ (11,711)
Other comprehensive loss				
Items that may subsequently be reclassified to earnings				
Foreign currency translation gain (loss)	-	485	-	(3,519)
Comprehensive loss for the year	$ (18,627)	$ (13,755)	(14,626)	$ (15,230)
Basic and diluted loss per common share	$ (1.46)	(1.12)	(1.23)	$ (0.98)

(c) Derecognition of financial assets and liabilities:

A financial asset is derecognized when the right to receive cash flows from the asset have expired or when the Company has transferred its rights to receive cash flows from the asset.

3. Significant accounting policies (continued):

A financial liability is derecognized when its contractual obligations are discharged, cancelled or expire.

(d) Financial assets and liabilities:

Financial assets within the scope of IAS 39, *Financial Instruments - Recognition and Measurement* ("IAS 39"), are classified as either financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments or available-for-sale financial assets, as appropriate. When financial assets are recognized initially, they are measured at fair value, plus, in the case of financial assets not at fair value through profit or loss, directly attributable transaction costs. The Company determines the classification of its financial assets at initial recognition and, where allowed and appropriate, re-evaluates this designation at each financial year end.

The Company's financial instruments are comprised of the following:

Financial Assets	Classification	Measurement
Cash and cash equivalents	Loans and receivables	Amortized cost
Investments	Loans and receivables	Amortized cost

Financial Liabilities	Classification	Measurement
Accounts payable, accrued liabilities	Other liabilities	Amortized cost

The Company considers unrestricted cash on hand and guaranteed investment certificates held by Canadian Schedule A banks with original maturities of three months or less as cash and cash equivalents.

Fair value:

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy establishes three levels to classify the inputs to valuation techniques used to measure fair value.

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

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

3. Significant accounting policies (continued):

- Level 3 - inputs are unobservable (supported by little or no market activity). The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs.

(e) Property and equipment:

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

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

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

(f) Research and development:

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in profit or loss as incurred.

Development activities involve a plan or design for the production of new or substantially improved products or processes. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Company intends to and has sufficient resources to complete development and to use or sell the asset. The expenditures capitalized would include the cost of materials, direct labour, overhead costs that are directly attributable to preparing the asset for its intended use, and borrowing costs on qualifying assets. Other development expenditures which do not meet the criteria for capitalization are recognized in profit or loss as incurred.

Capitalized development costs are recognized at cost less accumulated amortization and accumulated impairment losses.

The Company has not capitalized any development costs to date.

3. Significant accounting policies (continued):

(g) Employee benefits:

(i) Short-term employee benefits:

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid in short-term cash bonuses if the Company expects to pay these amounts as approved by the Board of Directors as a result of past services provided by the employee and the obligation can be estimated reliably.

(ii) Stock-based compensation:

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

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

Stock options awarded to non-employees are accounted for at the fair value of the goods received or the services rendered. The fair value is measured at the date the Company obtains the goods or the date the counterparty renders the service. If the fair value of the goods or services cannot be reliably measured, the fair value of the options granted will be used.

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

3. Significant accounting policies (continued):

(h) Loss per share:

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

(i) Income taxes:

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized.

(j) Provisions:

A provision is recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as a finance cost.

(k) Finance income and finance costs:

Finance income comprises interest income on funds invested. Interest income is recognized as it accrues in profit or loss using the effective interest method.

Finance costs comprise interest expense on borrowings and are recognized in profit or loss using the effective interest method.

3. Significant accounting policies (continued):

(l) New amendments adopted during 2017:

Recognition of Deferred Tax Assets for Unrealized Losses (Amendments to IAS 12)

On January 19, 2016 the IASB issued *Recognition of Deferred Tax Assets for Unrealized Losses* (Amendments to IAS 12). The amendments apply retrospectively for annual periods beginning on or after January 1, 2017. This amendment did not have an impact on the recognition of deferred tax assets and unrealized losses.

(m) Recent accounting pronouncements:

(i) IFRS 9, *Financial Instruments* ("IFRS 9"):

IFRS 9 (2014) introduces new requirements for the classification and measurement of financial assets. Under IFRS 9 (2014), financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows. The standard introduces additional changes relating to financial liabilities and also amends the impairment model by introducing a new 'expected credit loss' model for calculating impairment. IFRS 9 (2014) also includes a new general hedge accounting standard which aligns hedge accounting more closely with risk management. The Company intends to adopt IFRS 9 (2014) in its consolidated financial statements for the annual period beginning on January 1, 2018. The Company has evaluated the new requirements of IFRS 9 and determined that it will not have a material effect on the classification or measurement of the Company's financial assets.

(ii) IFRS 16, *Leases* ("IFRS 16")

On January 13, 2016, the IASB issued IFRS 16. The new standard is effective for annual periods beginning on or after January 1, 2019. Earlier application is permitted for entities that apply IFRS 15 *Revenue from Contracts with Customers* at or before the date of initial adoption of IFRS 16. IFRS 16 will replace IAS 17 *Leases*. This standard introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. The extent of the impact of adoption of the standard has not yet been determined.

4. Capital disclosures:

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.

4. Capital disclosures (continued):

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 year ended December 31, 2017.

In December 2014, Aptose filed a short form base shelf prospectus (the "Base Shelf") that qualified for the distribution of up to $100,000,000 of common shares, warrants, or units comprising any combination of common shares and warrants ("Securities"). The Base Shelf allowed the Company to enter into an "At-The-Market" Facility ("ATM") equity distribution agreement (see Note 9). The ATM provided 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 Base Shelf expired in December, 2017.

In October 2017, the Company entered into a Common Shares Purchase Agreement (the "Agreement") of up to $15.5 Million with Aspire Capital Fund, LLC ("Aspire Capital"). (Note 9). Under the terms of the Agreement, Aspire Capital has committed to purchase up to $15.5 million of common shares of Aptose, at Aptose's request from time to time during a 30 month period beginning on the effective date of a registration statement related to the transaction and at prices based on the market price at the time of each sale. The Company intends to use this equity arrangement as an additional option to assist us in achieving its capital objectives. The equity line provides the Company with the opportunity to regularly raise capital at prevailing market prices, at its sole discretion providing the ability to better manage cash resources.

In March 2018, Aptose filed a short form base shelf prospectus (the "2018 Base Shelf") that qualifies for the distribution of up to $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 2018 Base Shelf provides the Company with additional flexibility when managing 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.

(Tabular amounts in thousands of United States dollars, except per share amounts)

4. Capital disclosures (continued):

(a) Cash and cash equivalents:

Cash and cash equivalents consists of cash of $3.225 million (December 31, 2016 - $2.942 million), deposits in high interest savings accounts and other term deposits with maturities less than 90 days totaling $7.406 million (December 31, 2016 - $4.998 million).

(b) Investments:

As at December 31, 2017, investments consisted of a guaranteed investment certificate with maturity date of October 10, 2018, bearing an interest rate 1.45%. As at December 31, 2016, there were no investments outstanding.

5. Property and equipment:

December 31, 2017	Cost	Accumulated depreciation	Net book value
Laboratory equipment	$ 173	$ 94	$ 79
Computer hardware	47	31	16
Computer software	80	79	1
Office furniture	35	19	16
Leasehold improvements	69	39	30
	$ 404	$ 262	$ 142

December 31, 2016	Cost (as recast – note 3 (b))	Accumulated depreciation (as recast – note 3 (b))	Net book value (as recast – note 3 (b))
Laboratory equipment	$ 173	$ 60	$ 113
Computer hardware	34	25	9
Computer software	80	55	25
Office furniture	35	12	23
Leasehold improvements	69	26	43
	$ 391	$ 178	$ 213

(Tabular amounts in thousands of United States dollars, except per share amounts)

6. Additional cash flow disclosures:

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

	Year ended Dec 31, 2017	Year ended Dec 31, 2016 (as recast – note 3 (b))	Year ended Dec 31, 2015 (as recast – note 3 (b))
Prepaid expenses and other assets	$ 97	318	$ (153)
Accounts payable and accrued liabilities	447	(444)	316
Balance, end of year	$ 544	(126)	$ 163

The Company did not incur any interest expense in the years ended December 31, 2017 and 2016.

During the year ended December 31, 2015, the Company incurred and paid interest on the convertible promissory notes described in note 7 of $21 thousand. In addition the Company recorded accretion expense of $13 thousand as described in note 7. The notes were all converted by September 30, 2015.

7. Convertible promissory notes payable:

In September 2013, the Company completed a private placement of convertible promissory notes for aggregate gross proceeds of approximately $583 thousand (CA$600 thousand). Each convertible promissory note consisted of a CA$1 thousand principal amount of unsecured promissory note convertible into common shares of the Company at a price per share of CA$3.60. The promissory notes bore interest at a rate of 10% per annum, payable quarterly and were due September 26, 2015.

The promissory notes were a compound financial instrument containing a liability component and an equity component represented by the conversion feature. The fair value of the liability component upon issuance was estimated by discounting the future cash flows associated with the debt at a discounted rate of approximately 19% which represented the estimated borrowing cost to the Company for similar promissory notes with no conversion feature. The residual value of CA$88 thousand was allocated to the conversion feature.

Subsequent to initial recognition, the promissory notes were accounted for at amortized cost using the effective interest rate method. The Company incurred costs associated with the financing of approximately $16 thousand (CA$17 thousand). These costs along with the adjustment for the conversion feature were accreted using the effective interest method over the 24 month life of the notes.

During the year ended December 31, 2015, all of the outstanding promissory notes were converted into common shares of the Company.

(Tabular amounts in thousands of United States dollars, except per share amounts)

8. Financial instruments:

(a) Financial instruments:

The Company has classified its financial instruments as follows:

	December 31, 2017	2016
Financial assets:		
Cash and cash equivalents, consisting of high interest savings account, measured at amortized cost	$ 10,631	$ 7,940
Investments, consisting of guaranteed investment certificates, measured at amortized cost	798	-
Financial liabilities:		
Accounts payable and accrued liabilities, measured at amortized cost	1,765	1,318

At December 31, 2017 and 2016 there were 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:

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 and investments. The carrying amount of the financial assets represents the maximum credit exposure.

The Company manages credit risk associated with its cash and cash equivalents and investments by maintaining minimum standards of R1-low or A-low investments and the Company invests only in highly rated Canadian corporations which 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, management and the Board consider securing additional funds through equity, debt or partnering 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.

8. Financial instruments (continued):

In managing its liquidity risk, the Company has considered its available cash and cash equivalents and investments as at December 31, 2017. The Company has also considered additional cash raised through its share purchase agreement with Aspire Capital of $US 8.9M since December 31, 2017 (see note 18) and its ability to continue to raise funds under this agreement in 2018 in assessing whether it will have sufficient resources to fund research and development operations through to at least the year ending December 31, 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.

(iv) Interest rate risk:

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 interest bearing liabilities subject to interest rate fluctuations.

(v) Currency risk:

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 $51 thousand. Balances in foreign currencies are as follows:

8. Financial instruments (continued):

	CAD$ Balances		
	December 31, 2017	December 31, 2016	December 31, 2015
Cash and cash equivalents	$ 83	$ 2,867	$ 4,579
Investments	1,000	-	8,245
Accounts payable and accrued liabilities	(384)	(275)	(979)
Balance, end of year	$ 699	$ 2,592	$ 11,845

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

9. Share capital:

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

(a) Continuity of common shares and warrants:

	Common shares		Warrants	
	Number (in thousands)	Amount (as recast – note 3 (b))	Number (in thousands)	Amount (as recast – note 3 (b))
Balance, December 31, 2014	**11,700**	**210,454**	**209**	**$ 485**
Warrant exercises	81	429	(81)	(150)
Warrant expiry	-	-	(55)	(250)
Option exercises	143	1,075	-	-
Common shares issued under ATM (b)(ii)	2	8		
Promissory note conversion	122	342	-	-
Balance, December 31, 2015	**12,048**	**212,308**	**73**	**$ 85**
Common shares under the ATM (b)(ii)	3,674	5,726	-	
Warrant expiry (c)(i)	-	-	(73)	(85)
Balance, December 31, 2016	**15,722**	**218,034**	**-**	**$ -**

	Common shares		Warrants	
	Number (in thousands)	Amount	Number (in thousands)	Amount
Balance, December 31, 2016	**15,722**	**218,034**	**-**	**$ -**
Common shares under the ATM (b)(ii)	10,952	13,394	-	-
Common shares issued under share purchase agreement (b(i))	678	324	-	-
Common shares issued under redemption of restricted share units	150	171	-	-
Balance, December 31, 2017	**27,502**	**231,923**	**-**	**$ -**

9. Share capital (continued):

(b) Equity issuances:

(i) Share purchase agreement

On October 27, 2017, we entered into the Aspire Purchase Agreement, which provides that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $15,500,000 of Common Shares over approximately 30 months. Pursuant to the terms of this agreement, on October 31, 2017, Aspire Capital purchased 357,143 Common Shares for gross proceeds of $500 thousand ($324 thousand net of cash share issue costs). We also issued 321,429 Common Shares to Aspire Capital in consideration for entering into the Aspire Purchase Agreement.

(ii) At-The-Market ("ATM") Facility

On April 2, 2015, Aptose entered into an at-the-market ("ATM") equity facility with Cowen and Company, LLC, acting as sole agent. Under the terms of the ATM, Aptose was permitted to sell Common Shares having an aggregate offering value of US$20,000,000 on NASDAQ. The ATM expired on December 29, 2017 and as at that date the Company had issued a cumulative $20,000,000 of Common Shares pursuant to this facility.

During the year ended December 31, 2017, the Company issued 10,952,093 common shares under the ATM at an average price of $1.27 per share for gross proceeds of $13.9 million ($13.4 million net of share issue costs). Costs associated with the proceeds included a 3% cash commission as well as legal and accounting fees

During the year ended December 31, 2016, the Company issued 3,673,933 common shares under the ATM at an average price of $1.65 per share for gross proceeds of $6.05 million ($5.7 million net of share issue costs). Costs associated with the proceeds included a 3% cash commission as well as legal and accounting fees.

(c) Warrants:

During the year ended December 31, 2016, 73 thousand warrants with an original fair value of $85 thousand expired unexercised. The original fair value amount was transferred from warrants to contributed surplus.

9. Share capital (continued):

Warrants exercised during the year ended December 31, 2015:

(in thousands)	Number	Proceeds
August 2011 warrants (i)	16	$ 68
June 2013 private placement warrants (ii)	47	115
December 2013 broker warrants (iii)	18	96
Total	81	$ 279

In addition to the cash proceeds received, the original fair value related to these warrants of $150 thousand was transferred from warrants to share capital. This resulted in a total amount of $429 thousand credited to share capital.

(i) August 2011 warrants were exercisable into common shares of Aptose at a price per share of CA$5.40 and expired in August 2016.

(ii) June 2013 private placement warrants were exercisable into common shares of Aptose at a price per share of CA$3.00 and expired in June 2015.

(iii) December 2013 broker warrants were exercisable into common shares of Aptose at a price per share of CA$6.60 and expired in December 2015.

(d) Continuity of contributed surplus:

Contributed surplus is comprised of the cumulative grant date fair value of expired share purchase warrants and expired stock options as well as the cumulative amount of previously expensed and unexercised equity settled share-based payment transactions.

(e) Loss per share:

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

(in thousands)	Year ended Dec 31, 2017	Year ended Dec 31, 2016	Year ended Dec 31, 2015
Issued common shares, beginning of year	15,722	12,048	11,700
Effect of ATM issuances	6,402	695	-
Effect of shares issued pursuant to share purchase agreement	113	-	-
Effect of RSU redemptions	76	-	
Effect of warrant exercises	-	-	49
Effect of option and DSU exercises		-	103
Effect of promissory note conversions	-	-	54
Balance, end of year	22,313	12,743	11,906

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

(Tabular amounts in thousands of United States dollars, except per share amounts)

10. Stock-based compensation:

(a) Stock options

Under the Company's stock option plan, options, rights and other entitlements may be granted to directors, officers, employees and consultants of the Company to purchase up to a maximum of 17.5% of the total number of outstanding common shares, estimated at 4,812,000 options, rights and other entitlements as at December 31, 2017. Options are granted at the fair market value of the common shares on the closing trading price of the Company's stock on the day prior to the grant if the grant is made during the trading day or the closing trading price on the day of grant if the grant is issued after markets have closed. Options vest at various rates (immediate to four years) and have a term of 10 years.

Stock option transactions for the years ended December 31, 2017, 2016, and 2015 are summarized as follows:

Option numbers are in (000's)

	Options	Year ended December 31, 2017 Weighted average exercise price
Outstanding, beginning of year	2,005	$ 4.31
Granted	826	1.19
Expired	(323)	4.58
Forfeited	(164)	3.35
Outstanding, end of the year	2,344	3.46

Option numbers are in (000's)

	Options	Year ended December 31, 2016 Weighted average exercise price as recast (note 3(b))	Options	Year ended December 31, 2015 Weighted average exercise price as recast (note 3(b))
Outstanding, beginning of year	1,689	4.54	1,374	$ 5.13
Granted	382	2.94	478	5.67
Exercised	-	-	(143)	3.57
Forfeited	(66)	5.62	(20)	7.56
Outstanding, end of year	2,005	4.31	1,689	$ 4.54

(Tabular amounts in thousands of United States dollars, except per share amounts)

10. Stock-based compensation (continued):

The following table summarizes information about stock options outstanding at December 31, 2017:

Option numbers are in (000's)

	Options outstanding			Options exercisable	
Range of exercise prices	Options	Weighted average remaining contractual life (years)	Weighted average exercise price	Options	Weighted average exercise price
$1.03-$1.15	241	9.4	1.05	-	$ -
$1.16-$1.86	527	9.2	1.26	7	1.70
$1.87-$4.37	444	7.8	3.11	263	3.30
$4.38-$5.08	614	6.4	4.61	614	4.60
$5.09-$34.37	518	6.9	5.79	409	5.90
	2,344	7.7	3.46	1,293	4.70

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

	Year ended December 31, 2017	Year ended December 31, 2016	Year ended December 31, 2015
Risk-free interest rate	1.32%	0.68%	1.17%
Expected dividend yield	-	-	-
Expected volatility	98%	110%	106%
Expected life of options (years)	5	5	5
Grant date fair value (2016 and 2015 values have been recast to US dollars -note 3(b))	$ 0.87	$ 2.30	$ 4.36

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

Stock options granted by the Company during the year ended December 31, 2017 consist of 641,500 options that vest 50% after one year and 16.67% on each of the next three anniversaries, and 185,000 options that vest 50% after one year and 25% on each of the next two anniversaries.

Stock options granted by the Company during the year ended December 31, 2016, consist of 381,900 options that vest 50% after one year and 16.67% on each of the next three anniversaries.

Stock options granted by the Company during the year ended December 31, 2015, consist of 128,000 options that vest 50%, 25% and 25% on each of the next three anniversaries and 350,000 options that vest 50% on the first anniversary and 16.67% on each of the next three anniversaries (total four year vesting).

(Tabular amounts in thousands of United States dollars, except per share amounts)

10. Stock-based compensation (continued):

The Company recorded share-based payment expense of $646 thousand (2016 - $1,706 thousand, 2015 - $2,500 thousand) related to issued stock options. Refer to note 11 and 12 for a breakdown of stock option expense by function.

(b) Restricted share units

The Company has a stock incentive plan (SIP) pursuant to which the Board may grant stock-based awards comprised of restricted stock units or dividend equivalents to employees, officers, consultants, independent contractors, advisors and non-employee directors of the Company. Each restricted unit is automatically redeemed for one common share of the Company upon vesting. The following table presents the activity under the SIP plan for the year ended December 31, 2017 and the units outstanding.

	Number	Weighted average grant date fair value
Outstanding, beginning of year	**-**	**$ -**
Granted	**150**	**1.14**
Redeemed	**(150)**	**1.14**
Outstanding, end of year	**-**	**$ -**

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 year ending December 31, 2017, the Company recorded share-based payment expense of $171 thousand (2016 – nil, 2015- nil) 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 in thousands of United States dollars, except per share amounts)

11. Research and Development:

Components of research and development expenses are as follows:

	Year ended December 31, 2017	Year ended December 31, 2016 As recast (note 3(b))	Year ended December 31, 2015 As recast (note 3(b))
Research and Development excluding salaries	$ 4,573	$ 4,860	$ 3,131
CrystalGenomics Option Fee (a)	-	1,000	-
Salaries	1,451	1,691	1,528
Stock-based compensation	214	247	183
Depreciation of equipment	36	36	23
	$ 6,274	$ 7,834	$ 4,865

During the year ended December 31, 2016, the Company paid $1.0 million to CrystalGenomics for an option fee related to the CG'806 technology.

12. General and Administrative:

Components of general and administrative expenses:

	Year ended December 31, 2017	Year ended December 31, 2016 As recast (note 3(b))	Year ended December 31, 2015 As recast (note 3(b))
General and administrative excluding salaries	$ 2,610	$ 2,566	$ 3,377
Salaries	2,290	2,334	2,246
Stock-based compensation	602	1,459	2,317
Depreciation of equipment and amortization	50	80	52
	$ 5,552	$ 6,439	$ 7,992

13. Finance income and expense:

Components of finance income:

	Year ended December 31, 2017	Year ended December 31, 2016 (as recast – note 3 (b))	Year ended December 31, 2015 (as recast – note 3 (b))
Interest income	$ 68	$ 79	$ 226
Foreign exchange gain on cash and cash equivalents	97	-	954
	$ 165	$ 79	$ 1,180

(Tabular amounts in thousands of United States dollars, except per share amounts)

13. Finance income and expense (continued):

Components of finance expense:

	Year ended December 31, 2017	Year ended December 31, 2016 (as recast – note 3 (b))	Year ended December 31, 2015 (as recast – note 3 (b))
Interest expense	$ -	$ -	$ 21
Accretion expense	-	-	13
Foreign exchange loss on cash and cash equivalents	-	46	-
	$ -	$ 46	$ 34

14. 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 will be provided from April 1, 2015 to March 31, 2017 and will be billed monthly for services rendered.

The total amount for services provided under the agreement is not to exceed $200 thousand. In May, 2017, the Company entered into another agreement with UCSD for an additional twelve month period for services up to $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 year ended December 31, 2017, the Company recorded $240 thousand (2016 – $168 thousand) in research and development expenses related to the agreement.

Compensation of key management personnel:

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the Company's activities as a whole. The Company has determined that key management personnel consist of the members of the Board of Directors along with the officers of the Company. For the years ended December 31, 2017, 2016 and 2015, the officers were the Chairman, President and Chief Executive Officer, the Senior Vice President and Chief Financial Officer as well as the Senior Vice President and the former Chief Business Officer.

(Tabular amounts in thousands of United States dollars, except per share amounts)

14. Related party transactions (continued):

Officer compensation:

	Year ended December 31, 2017	Year ended December 31, 2016 As recast (note 3(b))	Year ended December 31, 2015 As recast (note 3(b))
Salaries and short-term employee benefits	$ 1,605	$ 1,543	$ 1,457
Stock-based compensation	371	1,191	1,871
	$ 1,976	$ 2,734	$ 3,328

Director compensation:

	Year ended December 31, 2017	Year ended December 31, 2016 As recast (note 3(b))	Year ended December 31, 2015 As recast (note 3(b))
Directors' fees	$ 240	$ 240	$ 239
Stock-based compensation	128	157	273
	$ 368	$ 397	$ 512

The amounts disclosed in the table above have been recognized as an expense during the reporting period related to key management personnel. Included in accounts payable and accrued liabilities, is $484 thousand (2016 - $261 thousand, 2015 – $9 thousand) owing to directors and officers of the Company relating to unpaid compensation and directors' fee.

15. Commitments, contingencies and guarantees:

(a) Operating lease commitments:

The Company has entered into operating leases for premises and equipment under which it is obligated to make minimum annual payments as described below:

	Less than 1 year	1 – 3 years	3 – 5 years	Greater than 5 years	Total
Operating leases	$ 225	$ 410	$ 433	$ 289	$ 1,357

(b) Other contractual commitments:

The Company has entered into various contracts with service providers with respect to the clinical development of APTO-253 and for its research program for its new program CG'806. These contracts will result in future payments commitments of approximately $4 million.

15. Commitments, contingencies and guarantees (continued):

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

Under the license agreement with CrystalGenomics, the Company has an option to pay $2.0 million in cash or combination of cash and common shares, for the 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 Food and Drug Administration ("FDA"), (ii) first dosage of a human in a clinical trial or (iii) or early June 2018. In addition, under the terms of the license agreement, there are development milestones on the initiation of Phase 2 and pivotal clinical trial of $16 million, and regulatory milestones totalling $44 million. The Company also has an obligation to pay royalty payments on sales of commercialized product. The timing of any milestone or royalty payments that may become due is not yet determinable.

(c) Guarantees:

The Company entered into various contracts, whereby contractors perform certain services for the Company. The Company indemnifies the contractors against costs, charges and expenses in respect of legal actions or proceedings against the contractors in their capacity of servicing the Company. The maximum amounts payable from these guarantees cannot be reasonably estimated. Historically, the Company has not made significant payments related to these guarantees.

The Company indemnifies its directors and officers against any and all claims or losses reasonably incurred in the performance of their service to the Company to the extent permitted by law. The Company has acquired and maintains liability insurance for its directors and officers. The fair value of this indemnification is not determinable.

(Tabular amounts in thousands of United States dollars, except per share amounts)

16. Income taxes:

Deferred tax assets have not been recognized in respect of the following items:

	December 31, 2017	December 31, 2016 As recast (note 3(b))	December 31, 2015 As recast (note 3(b))
Net operating losses carried forward	$ 15,645	$ 11,743	$ 8,099
Research and development expenditures	5,450	5,098	4,946
Equipment book over tax depreciation	410	368	354
Intangible asset	2,464	2,307	2,238
Undeducted financing costs	273	270	281
Ontario Research and Development Tax Credit	427	398	388
Cumulative eligible capital	284	267	288
Unrecognized deferred tax asset	$ 24,953	$ 20,451	$ 16,594

The Company has undeducted research and development expenditures, totaling $20.5 million that can be carried forward indefinitely. The Company also has non-refundable federal investment tax credits of approximately $4.3 million which are available to reduce future federal taxes payable and begin to expire in 2018, as well as non-refundable Ontario research and development tax credits of approximately $425 thousand which are available to reduce future Ontario taxes payable and begin to expire in 2028.

In addition, the Company has non-capital loss carryforwards of $59 million. To the extent that the non-capital loss carryforwards are not used, they expire as follows:

2026	$ 6
2027	3,460
2028	2,978
2029	522
2030	2,313
2031	2,053
2032	2,767
2033	5,977
2034	4,558
2035	8,988
2036	13,520
2037	11,859
	$ 59,001

(Tabular amounts in thousands of United States dollars, except per share amounts)

16. Income taxes (continued):

Provision for income taxes:

Major items causing the Company's income tax rate to differ from the statutory rate of approximately 26.5% (December 31, 2015 – 26.5%, December 31, 2014 - 26.5%) are as follows:

	Year ended December 31, 2017	Year ended December 31, 2016 As recast (note 3(b))	Year ended December 31, 2015 As recast (note 3(b))
Loss before income taxes	$ (11,661)	$ (14,240)	$ (11,711)
Statutory Canadian corporate tax rate	26.5%	26.5%	26.5%
Anticipated tax recovery	$ (3,090)	$ (3,773)	$ (3,103)
Non-deductible permanent differences	220	412	604
Change in deferred tax benefits deemed not probable to be recovered	4,502	3,434	2,606
Change in substantively enacted rates	51		
Foreign exchange differences	(1,391)		
Other	(292)	(73)	(107)
	$ -	$ -	$ -

17. Comparative figures:

Certain comparative figures in the years ended December 31, 2016 and December 31, 2015 have been reclassified in order to conform to the presentation in the current year. Account payables and accrued liabilities in the year ended December 31, 2015 were presented separately on the statements of financial position.

18. Subsequent events

(a) Subsequent to the quarter end, the Company issued 3,200,000 common shares under the Common Shares Purchase Agreement with Aspire Capital for gross proceeds of approximately $8.9 million. This transaction will be accounted for in the three months ended March 31, 2018.

(b) In March 2018, the Board approved an extension of its agreement with the Moores Cancer Center at the University of California San Diego (UCSD) to provide pharmacology lab services to the Company for a further twelve months for services up to $300,000. 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.

EXHIBIT 99.4

CERTIFICATION REQUIRED BY RULE 13a-14(a) OR RULE 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, William G. Rice, certify that:

1. I have reviewed this annual report on Form 40-F of Aptose Biosciences Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;

   (d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting;

5. The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 27, 2018

/s/ William G. Rice
Name: William G. Rice, Ph.D.
Title: Chairman, President and Chief Executive Officer

EXHIBIT 99.5

CERTIFICATION REQUIRED BY RULE 13a-14(a) OR RULE 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Gregory Chow, certify that:

1. I have reviewed this annual report on Form 40-F of Aptose Biosciences Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;

   (d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting;

5. The issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 27, 2018

/s/ Gregory Chow

Name: Gregory Chow
Title: Senior Vice President, Chief Financial Officer

Exhibit 99.6

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Aptose Biosciences Inc. (the "Company") on Form 40-F for the year ended December 31, 2017, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, William G. Rice, Chairman, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: March 27, 2018

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

Exhibit 99.7

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Aptose Biosciences Inc. (the "Company") on Form 40-F for the year ended December 31, 2017, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gregory Chow, Senior Vice Presdient, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly represents, in all material respects, the financial condition and results of the operations of the Company.

Date: March 27, 2018

/s/ Gregory Chow
Gregory Chow
Senior Vice President, Chief Financial Officer

Exhibit 99.8

KPMG LLP
100 New Park Place, Suite 1400
Vaughan, ON L4K 0J3
Tel 905-265 5900
Fax 905-265 6390
www.kpmg.ca

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Aptose Biosciences Inc.

We consent to the incorporation by reference in the Registration Statement (No. 333-222909) on Form F-10 of Aptose Biosciences Inc. of our report dated March 27, 2018, on the financial statements which comprise the consolidated statements of financial position as at December 31, 2017 and December 31, 2016, the consolidated statements of loss and comprehensive loss, changes in equity and cash flows for each of the years in the two-year period ended December 31, 2017, and notes, comprising a summary of significant accounting policies and other explanatory information, which report is included in Form 40-F of Aptose Biosciences Inc. for the fiscal year ended December 31, 2017, and further consent to the use of such report in Form 40-F.

Yours truly,

Chartered Professional Accountants, Licensed Public Accountants
March 27, 2018
Toronto, Canada