As filed with the Securities and Exchange Commission on March 8, 2018

Registration No. 333-222909

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

Amendment No. 1
To
Form F-10
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

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)**	**(I.R.S. Employer Identification Number, if any)**

5955 Airport Road, Suite #228
Mississauga, Ontario L4V 1R9
Canada
(647) 479-9828
(Address and telephone number of Registrant's principal executive offices)

Aptose Biosciences U.S. Inc.
Unit 120, 12770 High Bluff Drive
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)

Copies to:

Daniel M. Miller **Dorsey & Whitney LLP** **Suite 1070, 1095 West Pender Street** **Vancouver, British Columbia V6E 2M6** **Canada** **(604) 630-5199**	**Gregory K. Chow** **Chief Financial Officer** **Aptose Biosciences Inc.** **5955 Airport Road, Suite #228** **Mississauga, Ontario L4V 1R9** **Canada** **(647) 479-9828**	**Charles-Antoine Souliere** **McCarthy Tétrault LLP** **500, Grande Allée Est, 9e étage** **Québec, Quebec G1R 2J7** **Canada** **(418) 521-3000**

Approximate date of commencement of proposed sale to the public:
From time to time after the effective date of this registration statement.

Province of Ontario, Canada
(Principal jurisdiction regulating this offering)

It is proposed that this filing shall become effective (check appropriate box below):

A. ☐ upon filing with the Commission, pursuant to Rule 467(a) (if in connection with an offering being made contemporaneously in the United States and Canada).

B. ☒ at some future date (check appropriate box below)

1. ☐ pursuant to Rule 467(b) on ( ) at ( ) (designate a time not sooner than seven calendar days after filing).

2. ☐ pursuant to Rule 467(b) on ( ) at ( ) (designate a time seven calendar days or sooner after filing) because the securities regulatory authority in the review jurisdiction has issued a receipt or notification of clearance on ( ).

3. ☒ pursuant to Rule 467(b) as soon as practicable after notification of the Commission by the Registrant or the Canadian securities regulatory authority of the review jurisdiction that a receipt or notification of clearance has been issued with respect hereto.

4. ☐ after the filing of the next amendment to this Form (if preliminary material is being filed).

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to the home jurisdiction's shelf prospectus offering procedures, check the following box. ☒

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registration statement shall become effective as provided in Rule 467 under the Securities Act of 1933 or on such date as the Commission, acting pursuant to Section 8(a) of the Act, may determine.

PART I

INFORMATION REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

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Base Shelf Prospectus

No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise.

This short form prospectus has been filed under legislation in the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador that permits certain information about these securities to be determined after this prospectus has become final and that permits the omission from this prospectus of that information. The legislation requires the delivery to purchasers of a prospectus supplement containing the omitted information within a specified period of time after agreeing to purchase any of these securities.

Information has been incorporated by reference in this prospectus from documents filed with securities commissions or similar authorities in Canada. *Copies of the documents incorporated herein by reference may be obtained on request without charge from the Director of Finance of the Company at 5955 Airport Road, Suite 228, Mississauga, Ontario, Canada L4V 1R9, telephone (647) 479-9828, and are also available electronically at www.sedar.com.*

March 7, 2018

SHORT FORM BASE SHELF PROSPECTUS

New Issue

APTOSE BIOSCIENCES INC.

US$100,000,000
Common Shares
Warrants
Units

Under this short form base shelf prospectus (the "**Prospectus**"), Aptose Biosciences Inc. ("**Aptose**", the "**Company**", "**we**", "**us**" or "**our**") may, from time to time during the 25-month period that this Prospectus, including any amendments, remains valid, offer and issue common shares (the "**Common Shares**") of its share capital, or warrants to purchase Common Shares (the "**Warrants**") or units comprised of one or more of the other securities described in this Prospectus in any combination (the "**Units**" and together with the Common

Shares and the Warrants, the "**Securities**") in one or more offerings of up to US$100,000,000 (or the equivalent in foreign currencies). The Securities may be offered separately or together, in amounts, at prices and on terms based on market conditions at the time of the sale and set forth in an accompanying prospectus supplement (a "**Prospectus Supplement**"). The Company may sell the Warrants in one or more series.

We are permitted, under a multi-jurisdictional disclosure system adopted by the United States and Canada, to prepare this Prospectus in accordance with Canadian disclosure requirements. The financial statements included or incorporated herein have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS"), and thus may not be comparable to financial statements of United States companies. Prospective investors should be aware that such requirements are different from those of the United States. The ability of prospective investors to enforce civil liabilities under United States federal securities laws may be affected adversely by the fact that we are incorporated under the laws of Canada, that many of our directors and officers and the experts named in this Prospectus are residents of countries other than the United States, and all or a substantial portion of their assets and some of our assets are located outside the United States.

Prospective investors should be aware that the purchase of Securities may have tax consequences, both in the United States and Canada, which may not be fully described herein or in any applicable Prospectus Supplement. Prospective investors should read the tax discussion, if any, in the applicable Prospectus Supplement and consult with an independent tax advisor.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION (THE "SEC") OR ANY STATE SECURITIES REGULATORY AUTHORITY, NOR HAS THE SEC OR ANY STATE SECURITIES REGULATORY AUTHORITY PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENCE.

The specific terms of the Securities with respect to a particular offering will be set out in the applicable Prospectus Supplement and may include, where applicable: (i) in the case of Common Shares, the number of Common Shares offered, the issue price and currency (in the event the offering is a fixed price distribution), the manner in which the offering price and currency will be determined (in the event the offering is a non-fixed price distribution) and any other terms specific to the Common Shares being offered; (ii) in the case of Warrants, the designation, number and terms of the Common Shares purchasable upon exercise of the Warrants, any procedures that will result in the adjustment of these numbers, the exercise price, dates and periods of exercise, the currency in which the Warrants are offered and any other specific terms; and (iii) in the case of Units, the number of Units offered, the issue price, the currency, the terms of the Units and of the securities comprising the Units and any other terms specific to the Units being offered. Where required by statute, regulation or policy, and where Securities are offered in currencies other than Canadian dollars, appropriate disclosure of foreign exchange rates applicable to such Securities will be included in the Prospectus Supplement describing such Securities. We may also include in a Prospectus Supplement specific terms pertaining to the Securities which are not within the options and parameters set forth in this Prospectus.

All shelf information permitted under applicable securities legislation to be omitted from this Prospectus will be contained in one or more Prospectus Supplements that will be delivered to purchasers together with this Prospectus. Each Prospectus Supplement will be incorporated by reference into this Prospectus for the purposes of applicable securities legislation as of the date of the Prospectus Supplement and only for the purposes of the distribution of the Securities to which the Prospectus Supplement pertains. This Prospectus and any applicable Prospectus Supplement should be read carefully before investing in the Securities.

We may offer and sell these Securities to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis. The Prospectus Supplement for each offering of Securities will describe in detail the plan of distribution. If underwriters, dealers and agents are used to sell these Securities, we will name them and describe their compensation in a Prospectus Supplement.

Our outstanding Common Shares are listed and posted for trading on the Toronto Stock Exchange, which we refer to as the "TSX", under the symbol "APS" and the NASDAQ Capital Market, which we refer to as "NASDAQ", under the symbol "APTO". On March 6, 2018, the last reported sale price of our Common Shares on the TSX was Cdn$4.08 per Common Share and on NASDAQ was US$3.18 per Common Share. **There is no market through which the Securities, other than the Common Shares, may be sold and purchasers may not be able to resell the Securities purchased under this Prospectus. This may affect the pricing of the Securities in the secondary market, the transparency and availability of trading prices, the liquidity of the Securities and the extent of issuer regulation. See "Risk Factors".**

Securities offered pursuant to this Prospectus and any related Prospectus Supplement will constitute a public offering of such Securities only in those jurisdictions where they may be lawfully offered for sale and therein only by persons permitted to sell such Securities. We may offer and sell Securities to or through underwriters or dealers, directly to one or more purchasers pursuant to applicable statutory exemptions, or through agents designated from time to time at amounts and prices and other terms determined by us. The Prospectus Supplement relating to a particular offering of Securities will identify each underwriter, dealer or agent engaged in connection with the offering and sale of Securities and will set forth the plan of distribution for such Securities, including the proceeds to the Company and any fees, discounts, concessions or other compensation payable to the underwriters, dealers or agents, and any other material terms of the plan of distribution. See "Plan of Distribution".

In connection with any underwritten offering of the Securities (unless otherwise specified in a Prospectus Supplement), the underwriters or agents may over-allot or effect transactions which stabilize or maintain the market price of the Securities offered at a higher level than that which might exist in the open market. Such transactions, if commenced, may be interrupted or discontinued at any time. See "Plan of Distribution".

Dr. William G. Rice, President, Chief Executive Officer and Chairman of the Board of Directors of the Company, Gregory K. Chow, Senior Vice President and Chief Financial Officer of the Company, Dr. Denis Burger, a director of the Company and Dr. Erich Platzer, a director of the Company, all reside outside of Canada and have appointed Aptose Biosciences Inc., 5955 Airport Road, Suite 228, Mississauga, Ontario, Canada L4V 1R9, as agent for service of process. Purchasers are advised that it may not be possible for investors to enforce judgments obtained in Canada against any person or company that is incorporated, continued or otherwise organized under the laws of a foreign jurisdiction or resides outside of Canada, even if the party has appointed an agent for service of process.

Our head, registered and principal executive offices are located at 5955 Airport Road, Suite 228, Mississauga, Ontario L4V 1R9, Canada (telephone: (647) 479-9828).

Investing in the Securities involves risks, including those that are described in the "Risk Factors" section of this Prospectus or incorporated by reference into this Prospectus. The Company will apply to list the Common Shares distributed under this Prospectus including the Common Shares underlying the Units and Warrants, if any. However, unless specified in the applicable Prospectus Supplement, there is no market through which the Units and Warrants may be sold and purchasers may not be able to resell the Units and Warrants purchased under this Prospectus and the Prospectus Supplements. This may affect the pricing of the Units and Warrants in the secondary market, the transparency and availability of trading prices, the liquidity of the Units and Warrants and the extent of issuer regulation. See "Risk Factors".

No underwriter, dealer, placement agent, other intermediary or agent has been involved in the preparation of this Prospectus or performed any review of the contents of this Prospectus.

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GENERAL MATTERS

This Prospectus is a part of a registration statement that we have filed with the SEC utilizing a "shelf" registration process. Under this shelf registration process, we may sell the Securities described in this Prospectus in one or more offerings up to a total dollar amount of initial aggregate offering price of US$100,000,000. This Prospectus provides you with a general description of the Securities that we may offer. Each time we sell Securities under this process, we will provide a Prospectus Supplement that will contain specific information about the terms of that offering, including a description of any risks relating to the offering if those terms and risks are not described in this Prospectus. A Prospectus Supplement may also add, update, or change information contained in this Prospectus. If there is any inconsistency between the information in this Prospectus and the applicable Prospectus Supplement, you should rely on the information in the Prospectus Supplement.

Before investing in our Securities, please carefully read both this Prospectus and any Prospectus Supplement together with the documents incorporated by reference into this Prospectus, as listed under "Documents Incorporated by Reference," and the additional information described below under "Where You Can Find More Information."

Acquiring, owning or disposing of Securities may subject investors to tax consequences in the United States and in Canada. This Prospectus or any applicable Prospectus Supplement may not describe these tax consequences fully. Prospective investors should read the tax discussion in any Prospectus Supplement with respect to a particular offering and consult your own tax advisor with respect to your own particular circumstances.

Prospective investors should rely only on the information contained in or incorporated by reference into this Prospectus or any applicable Prospectus Supplement. We have not authorized anyone to provide prospective investors with different information. If anyone provides a prospective investor with different or inconsistent information, it should not be relied upon. The distribution or possession of this Prospectus in or from certain jurisdictions may be restricted by law. This Prospectus is not an offer to sell the Securities and is not soliciting an offer to buy the Securities in any jurisdiction where the offer or sale is not permitted or where the person making the offer or sale is not qualified to do so or to any person to whom it is not permitted to make such offer or sale. Prospective investors should assume that the information contained in this Prospectus and in any applicable Prospectus Supplement is accurate only as of the date on the front cover of this Prospectus or Prospectus Supplement, as applicable, and the information incorporated by reference into this Prospectus or any Prospectus Supplement is accurate only as of the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since that date.

The corporate website of the Company is www.aptose.com. The information on the Company's website is not intended to be included or incorporated by reference into this Prospectus and prospective investors should not rely on such information when deciding whether or not to invest in the Securities.

Statistical information and other data relating to the pharmaceutical and biotechnology industry included in this Prospectus are derived from recognized industry reports published by industry analysts, industry associations and/or independent consulting and data compilation organizations. Market data and industry forecasts used throughout this Prospectus were obtained from various publicly available sources. Although the Company believes that these independent sources are generally reliable, the accuracy and completeness of the information from such sources are not guaranteed and have not been independently verified.

In this Prospectus, unless the context otherwise requires, references to "Aptose", the "Company", "we", "us", and "our" refer to Aptose Biosciences Inc. and its wholly owned subsidiaries through which it conducts its business.

Financial Statements and Exchange Rate Information

The consolidated financial statements incorporated by reference into this Prospectus and the documents incorporated by reference into this Prospectus, and the financial data derived from those consolidated financial statements included in this Prospectus, are presented in Canadian dollars, unless otherwise specified, and have been prepared in accordance with IFRS. References in this Prospectus to "dollars", "US$" or "$" are to United States dollars. Canadian dollars are indicated by the symbol "Cdn$".

The following table lists, for each period presented, the high and low exchange rates, the average of the exchange rates during the period indicated, and the exchange rates at the end of the period indicated, for one Canadian dollar, expressed in United States dollars, based on the closing exchange rate published by the Bank of Canada for the applicable periods.

	Year ended December 31,		
	2017	2016	2015
High for the period	0.8245	0.7977	0.8511
Low for the period	0.7276	0.6869	0.7161
End of period	0.7971	0.7448	0.7821
Average for the period	0.7701	0.7550	0.7225

On March 6, 2018, the closing exchange rate for one Canadian dollar, expressed in United States dollars, as reported by the Bank of Canada, was Cdn$1.00 = US$0.7753.

FORWARD-LOOKING STATEMENTS

This Prospectus, including the documents incorporated by reference herein, contains forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 and "forward-looking information" within the meaning of applicable Canadian securities law. We refer to such forward-looking statements and forward-looking information collectively as "forward-looking statements". These statements relate to future events or future performance and reflect our expectations and assumptions regarding our growth, results of operations, performance and business prospects and opportunities. Such forward-looking statements reflect our current beliefs and are based on information currently available to us. In some cases, forward-looking statements can be identified by terminology such as "may", "would", "could", "will", "should", "expect", "plan", "intend", "anticipate", "believe", "estimate", "predict", "potential", "continue" or the negative of these terms or other similar expressions concerning matters that are not historical facts. The forward-looking statements in this Prospectus and, including any documents incorporated by reference herein, include, among others, statements regarding our future operating results, economic performance and product development efforts and statements in respect of:

- 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 contained in this Prospectus and in the documents incorporated by reference 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 lack of product revenues and net losses and a 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 need to raise substantial additional capital in the future and that we may be unable to raise such funds when needed and on acceptable terms;
- further equity financing, which may substantially dilute the interests of our existing shareholders;
- 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 substantially harm our business;
- our reliance on external contract research/manufacturing organizations for certain activities and 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;
- clinical studies are long, expensive and uncertain processes and the United States Food and Drug Administration ("**FDA**") or Health Canada may ultimately not approve any of our product candidates;
- our ability to comply with applicable governmental regulations and standards;
- our inability to achieve our projected development goals in the time frames we announce and expect;
- difficulties in enrolling patients for clinical trials may lead to delays or cancellations of our clinical trials;
- our reliance on third-parties to conduct and monitor our preclinical studies;
- our ability to attract and retain key personnel, including key executives and scientists;
- any misconduct or improper activities by our employees;
- our exposure to exchange rate risk;
- our ability to commercialize our business attributed to negative results from clinical trials;
- the marketplace may not accept our products or product candidates due to the intense competition and technological change in the biotechnical and pharmaceuticals, and we may not be able to compete successfully against other companies in our industries and achieve profitability;
- our ability to obtain and maintain patent protection;
- our ability to afford substantial costs incurred with defending our intellectual property;
- our ability to protect our intellectual property rights and not infringe on the intellectual property rights of others;
- 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;
- commercialization limitations imposed by intellectual property rights owned or controlled by third parties;
- our ability to maintain adequate insurance at acceptable costs;
- our ability to find and enter into agreements with potential partners;
- extensive government regulation;
- data security incidents and privacy breaches could result in increased costs and reputational harm;
- our share price has been and is likely to continue to be volatile;
- future sales of our common shares by us or by our existing shareholders could cause our share price to drop;
- changing global market and financial conditions;

- changes in an active trading market in our common shares;
- difficulties by non-Canadian investors to obtain and enforce judgments against us because of our Canadian incorporation and presence;
- potential adverse U.S. federal tax consequences for U.S. shareholders because we are a "passive foreign investment company";
- our "emerging growth company" status;
- any failures to maintain an effective system of internal controls may result in material misstatements of our financial statements, or cause us to fail to meet our reporting obligations or fail to prevent fraud;
- our status as a foreign private issuer may limit the information which would be publicly available to our shareholders;
- our broad discretion in how we use the proceeds of the sale of the common shares to Aspire Capital pursuant to the Purchase Agreement;
- our ability to expand our business through the acquisition of companies or businesses; 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 SEC, and those which are discussed under the heading "Risk Factors" in this Prospectus and in the documents incorporated by reference.

Should one or more of these risks or uncertainties materialize, or should the assumptions described in the sections entitled "Risk Factors" in this Prospectus and in the documents incorporated by reference underlying those forward-looking statements prove incorrect, actual results may vary materially from those described in the forward-looking statements.

Forward-looking statements contained in this Prospectus are made as of the date of this Prospectus. Forward-looking statements made in a document incorporated by reference into this Prospectus are made as of the date of the original document and have not been updated by us except as expressly provided for in this Prospectus.

Except as required under applicable securities legislation, we undertake no obligation to publicly update or revise forward-looking statements, whether as a result of new information, future events or otherwise. **We qualify all the forward-looking statements contained in this Prospectus and the documents incorporated by reference in this Prospectus by the foregoing cautionary statements.**

DOCUMENTS INCORPORATED BY REFERENCE

Information has been incorporated by reference in the Prospectus from documents filed with the securities commissions or similar authorities in Canada. Copies of the documents incorporated herein by reference may be obtained on request, without charge, from the Director of Finance of the Company at 5955 Airport Road, Suite 228, Mississauga, Ontario, Canada L4V 1R9 (telephone (647) 479-9828), and are also available electronically at www.sedar.com.

The following documents of the Company filed with the securities commissions or similar authorities in the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador are specifically incorporated by reference in this Prospectus:

(i) the annual report on form 20-F for the fiscal year ended December 31, 2016 (the "**AIF**");

(ii) the annual audited consolidated financial statements of the Company and the notes thereto for the years ended December 31, 2016 and 2015 as well as the seven months ended December 31, 2014, together with the auditor's report thereon;

(iii) the management's discussion and analysis of the Company for the year ended December 31, 2016;

(iv) the unaudited condensed consolidated interim financial statements of the Company and the notes thereto for the three and nine months ended September 30, 2017 and 2016;

(v) the management's discussion and analysis of Aptose for the three and nine months ended September 30, 2017;

(vi) the management proxy circular of Aptose dated April 18, 2017 with respect to the annual meeting of the shareholders of Aptose held on June 6, 2017;

(vii) the material change report of Aptose dated January 24, 2017 with respect to the prioritization of resources toward the development of CG026806 ("**CG'806**"); and

(viii) the material change report of Aptose dated October 30, 2017 with respect to a Common Shares purchase agreement (the "**Aspire Purchase Agreement**") with Aspire Capital Fund, LLC ("**Aspire Capital**").

Any documents of the type required by National Instrument 44-101 – *Short Form Prospectus Distributions* to be incorporated by reference in a short form Prospectus including any material change reports (excluding any confidential material change reports), comparative interim financial statements, comparative annual financial statements and the auditor's report thereon, information circulars, annual information forms and business acquisition reports filed by the Company with a securities commission or similar regulatory authority in Canada on or after the date of this Prospectus and prior to the termination of the distribution under this Prospectus shall be deemed to be incorporated by reference into this Prospectus. In addition, to the extent that any document or information incorporated by reference into this Prospectus is included in any report on Form 6-K, Form 40-F, Form 20-F, Form 10-K, Form 10-Q or Form 8-K (or any respective successor form) that is filed with or furnished to the SEC after the date of this Prospectus, that document or information shall be deemed to be incorporated by reference as an exhibit to the registration statement of which this Prospectus forms a part (in the case of Form 6-K and Form 8-K, if and to the extent set forth therein). We may also incorporate other information filed with or furnished to the SEC under the *United States Securities Exchange Act of 1934*, as amended (the "**Exchange Act**"), provided that information included in any report on Form 6-K or Form 8-K shall be so deemed to be incorporated by reference only if and to the extent expressly provided in such Form 6-K or Form 8-K.

Upon a new renewal annual information form and the related annual financial statements and management's discussion and analysis of financial condition and results of operations being filed by the Company with, and, where required, accepted by the applicable securities regulatory authorities during the currency of the Prospectus,

the previous annual information form, the previous annual financial statements and all quarterly financial statements, material change reports and information circulars filed prior to the commencement of the Company's financial year in which the new renewal annual information form is filed shall be deemed no longer to be incorporated into this Prospectus for purposes of future offerings of Securities under the Prospectus.

Any statement contained in the Prospectus or in a document incorporated or deemed to be incorporated by reference in the Prospectus shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference in the Prospectus modifies or supersedes such statement. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document that it modifies or supersedes. The making of such a modifying or superseding statement shall not be deemed an admission for any purposes that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made. Only the modifying or superseding statement shall be deemed to constitute a part of this Prospectus.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC, under the U.S. Securities Act of 1933, as amended, a registration statement on Form F-10 relating to the Securities. This Prospectus, which constitutes a part of the registration statement, does not contain all of the information contained in the registration statement, certain items of which are contained in the exhibits to the registration statement as permitted by the rules and regulations of the SEC. See "*Documents Filed as Part of the Registration Statement*". Statements included or incorporated by reference in this Prospectus about the contents of any contract, agreement or other documents referred to are not necessarily complete, and in each instance, readers should refer to the exhibits for a complete description of the matter involved. Each time we sell Securities under the registration statement, we will provide a Prospectus Supplement that will contain specific information about the terms of that offering. The Prospectus Supplement may also add, update or change information contained in this Prospectus.

We are subject to the information reporting requirements of the Exchange Act, and applicable Canadian securities legislation, and in accordance therewith we file and furnish annual and quarterly financial information and material change reports, business acquisition reports and other material with the securities commission or similar regulatory authority in each of the provinces of Canada and with the SEC. Under a multi-jurisdictional disclosure system adopted by the United States and Canada, documents and other information that are filed with the SEC may generally be prepared in accordance with the disclosure requirements of Canada, which are different from those of the United States. Prospective investors may read and download any public document that we have filed with the securities commission or similar regulatory authority in each of the provinces of Canada on SEDAR at www.sedar.com. The reports and other information filed and furnished by us with the SEC can be inspected on the SEC's website at www.sec.gov/edgar.shtml (EDGAR) and such information can also be inspected and copies ordered at the public reference facilities maintained by the SEC at the following location: 100 F Street NE, Washington, D.C. 20549. Reports and other information about the Corporation may also be inspected at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

ENFORCEMENT OF CIVIL LIABILITIES

Aptose is a corporation formed under, and governed by, the laws of the Canada. Many of our directors and officers and the experts named in this Prospectus are residents of countries other than the United States, and all or a substantial portion of their assets and some of our assets are located outside the United States. As a result, it may be difficult for investors in the United States to effect service of process within the United States upon those directors, officers and experts who are not residents of the United States or to enforce against them judgments of United States courts based upon civil liability under the United States federal securities laws or the securities laws of any state within the United States.

Aptose filed with the SEC, concurrently with the registration statement on Form F-10 of which this Prospectus forms a part, an appointment of agent for service of process on Form F-X. Under the Form F-X, Aptose appointed Aptose Biosciences U.S. Inc., Unit 120, 12770 High Bluff Drive, San Diego, CA 92130, telephone (647) 479-9828, as its agent for service of process in the United States in connection with any investigation or administrative proceeding conducted by the SEC, and any civil suit or action brought against or involving Aptose in a United States court arising out of or related to or concerning the offering of Securities under the registration statement. However, it may not be possible for investors to enforce outside the United States judgments against Aptose obtained in the United States in any such actions, including actions predicated upon the civil liability provisions of the United States federal and state securities laws.

THE COMPANY

This summary does not contain all of the information about the Company that may be important to you and your investment decision. You should carefully read the entire Prospectus and the applicable Prospectus Supplement, including the section entitled "Risk Factors", as well as the risk factors described in the documents incorporated by reference into this Prospectus and the applicable Prospectus Supplement, before making an investment decision.

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, we are 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 and minimize the emergence of drug resistance. 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.

We are committed to the development of anticancer drugs that target aberrant oncologic signaling processes that underlie particular life-threatening malignancies. 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 /pan-BTK inhibitor, CG'806 targets multiple critical pathways that lead to the proliferation of cancer cells, including the B-cell receptor signaling pathways (drive certain B cell malignancies) and FLT3 receptor pathways (drive AML). Further, we 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.

We were incorporated under the *Business Corporations Act* (Ontario) on September 5, 1986 under the name RML Medical Laboratories Inc. On October 28, 1991, we amalgamated with Mint Gold Resources Ltd., which caused us to become a reporting issuer in Ontario. On August 25, 1992, we changed our name to IMUTEC Corporation. On November 27, 1996, we changed our name to Imutec Pharma Inc., and on November 19, 1998, we changed our name to Lorus Therapeutics Inc. On October 1, 2005, we continued under the *Canada Business Corporations Act* and on July 10, 2007 we completed a plan of arrangement and corporate reorganization with, among others, 6650309 Canada Inc., 6707157 Canada Inc. and Pinnacle International Lands, Inc. On May 25, 2010, we consolidated our outstanding Common Shares on the basis of one post-consolidation common share for each 30 pre-consolidation Common Shares.

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

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

Products

CG'806

We currently are engaged in the development of a clinical-stage program, a late preclinical stage program, and a third program that is discovery-stage and positioned for potential partnering. Aptose's pan-FLT3 /

pan-BTK inhibitor, CG'806, is currently in preclinical development and advancing toward Investigational New Drug ("**IND**") submission.

As a potent inhibitor of FLT3-ITD, CG'806 may become an effective therapy in a high-risk subset of AML patients. This is because the FLT3-ITD mutation occurs in approximately 30% of patients with AML and is associated with a poor prognosis. In murine xenograft studies of human AML (FLT3-ITD), CG'806 administered orally once daily for 14 days resulted in tumor elimination without measurable toxicity. Importantly, CG'806 targets other oncogenic kinases which may also be operative in FLT3-ITD AML, including wild type FLT3, BTK, AURK, RET and SRC family kinases, thereby potentially allowing the agent to become an important therapeutic option for a broader group of this difficult-to-treat AML patient population. 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 expression of certain B cell malignancies, such as chronic lymphocytic leukemia ("**CLL**"), mantle cell lymphoma (MCL), diffuse large cell B cell lymphoma (DLBCL) and others. Therapy of these patients with covalent, irreversible BTK inhibitors, such as ibrutinib, that target the active site Cysteine 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 due to the development of resistance (in particular, patients having tumors that developed the BTK-C481S mutation), refractory properties (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. 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 approximately 1000 times more potently than ibrutinib, and CG'806 demonstrated a high degree of safely in animal efficacy studies. Consequently, patients who have relapsed, are refractory or intolerant to ibrutinib or other commercially approved or development stage BTK inhibitors with B cell malignancies may continue to be sensitive to CG'806 therapy since CG'806 inhibits the wild type and mutant forms of BTK, as well as other kinases that drive the survival and proliferation of B cell malignancies.

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.

As at September 30, 2017, direct costs relating to the research and development of CG'806 represented approximately US$2.7 million. 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. The total direct costs of such activities and to reach the submission of the IND are currently expected to range between US$4 million and US$5.5million. 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 will be used for planned Dose Range Finding Studies and toxicology studies. Likewise, we also reported that we selected the oral formulation that we intend to take into first-in-human clinical trials. Provided we are able to manufacture CG'806 for both the non-clinical 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. However any interruptions 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

APTO-253 is our second anticancer agent and at the Phase Ib clinical stage for the treatment of patients with relapsed / refractory blood cancers, including AML and high-risk MDS, under an IND allowed by the FDA to evaluate APTO-253 as a therapeutic agent dosed on a weekly administration schedule for the treatment of certain hematologic malignancies.

APTO-253 was being evaluated by us in a Phase Ib clinical trial in patients with relapsed / refractory hematologic malignancies, particularly AML and high-risk 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 plan to manufacture a new clinical supply of drug product, perform all of the anticipated studies required to demonstrate fitness of the drug product for clinical usage, and then 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$1.7 million and

US$2.2 million. Investors are cautioned that there can be no assurance that the FDA will remove the clinical hold. From June 1, 2014, being the beginning of the fiscal year when APTO-253 was redirected from solid tumor indications to hematologic malignancies, until September 30, 2017, direct costs relating to the research and development of APTO-253 represented approximately US$8.9 million.

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 hematalogic 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

CONSOLIDATED CAPITALIZATION

There have been no material changes in the consolidated capitalization of the Company since September 30, 2017, the date of the Company's unaudited interim condensed consolidated financial statements for the nine months ended September 30, 2017, which have not been disclosed in the Prospectus or the documents incorporated by reference herein.

PRIOR SALES

On April 2, 2015, we 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, from time to time, sell Common Shares having an aggregate offering value of up to US$20,000,000 on NASDAQ. We issued a total of 10,592,093 Common Shares at prices ranging between US$2.20 and US$0.80 under the ATM during the 12-month period prior to the date of this Prospectus. 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.

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 US$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 at US$1.40 per Common Share and we issued 321,429 Common Shares to Aspire Capital in consideration for entering into the Aspire Purchase Agreement. During the period of January 16, 2018 to the date of the Prospectus, we issued a total of 1,800,000 Common Shares to Aspire Capital at prices ranging between US$2.1667 and US$2.82 pursuant to the Aspire Purchase Agreement.

During the 12-month period prior to the date of the Prospectus, 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; (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) on January 19, 2018, we granted options to purchase an aggregate of 670,000 Common Shares at a price of US$2.80 per Common Share; (ix) on January 19, 2018, we granted options to purchase an aggregate of 180,000 Common Shares at a price of Cdn$3.52 per Common Share; (x) on January 22, 2018, we granted options to purchase an aggregate of 90,000 Common Shares at a price of Cdn$3.84 per Common Share; and (xi) on January 22, 2018, we granted options to purchase an aggregate of 1,119,000 Common Shares at a price of US$3.07 per Common Share.

USE OF PROCEEDS

The aggregate proceeds of distributions of Securities under this Prospectus shall not exceed US$100,000,000. Unless otherwise indicated in a Prospectus Supplement, the net proceeds that we receive from the sale of the Securities offered by this Prospectus will be used by us to potentially (i) initiate, accelerate and expand clinical trials for CG'806; (ii) initiate, accelerate and expand our clinical trials for APTO-253 provided the clinical hold is lifted by the FDA; (iii) acquire and fund (including through partnerships and in-licensing) additional clinical assets; and (iv) for working capital and general corporate purposes relating to (i), (ii) or (iii) above. However, there is no certainty as to how the net proceeds that we receive from the sale of the Securities offered by this Prospectus may be used given that market opportunities and evolution of our current clinical assets may affect projections.

We expect that our currently available cash and proceeds available through the Aspire Purchase Agreement will be sufficient to pay planned operational expenditures over the next 25 months, including research and development costs. However, proceeds raised under the Prospectus may allow us to initiate and complete

Phase Ib clinical trials for APTO-253 in AML and initiate and complete two separate Phase I clinical trials for CG'806 in both AML and B cell malignancies.

We believe that our intended use of the net proceeds that we receive from the sale of the Securities offered by this Prospectus is consistent with our primary business objective of developing our core assets, CG'806 and APTO-253. Commercialization and production of biopharmaceuticals can only be achieved once all regulatory steps have been completed. The regulatory approval process usually includes three phases of clinical trials which, depending on the drug or drug product being tested, will vary in time required to complete. The phases typically extend for a number of years and are costly to complete. Given the uncertainty around the design, regulatory requirements and timing of future non-clinical activities and clinical trials, an estimate of the future costs of the regulatory phases is not reasonable at this time.

While we intend to use the net proceeds that we receive from the sale of the Securities offered by this Prospectus as outlined above or in the applicable Prospectus Supplement, the timing and actual use of the net proceeds may vary depending on operating and capital needs, the progress and outcome of our non-clinical activities, clinical trials and research and development programs, the progress of the formal review of strategic alternatives and business and operations circumstances. There may be circumstances where, on the basis of results obtained or for other sound business reasons, a re-allocation of funds may be necessary or prudent. Accordingly, management of the Company will have broad discretion in the application of the proceeds of an offering of Securities. The actual amount we spend in connection with each intended use of proceeds may vary significantly from the amounts specified in the applicable Prospectus Supplement and will depend on a number of factors, including those referred to under "Risk Factors" in our AIF and any other factors set forth in the applicable Prospectus Supplement.

We have not allocated any portion of the net proceeds for any particular use as of the date of this Prospectus, nor have we entered into any negotiations regarding any potential future transaction or signed any letter of intent or initiated due diligence on any such future transaction. The net proceeds may be invested temporarily until they are used for their stated purpose.

The net proceeds to the Company from any offering of Securities, the proposed use of those proceeds and the specific business objectives which we expect to accomplish with such proceeds will be set forth in the applicable Prospectus Supplement relating to that offering of Securities.

Negative Cash Flow

For the nine months ended September 30, 2017, cash used in operating activities by us was Cdn$2.664 million and we had a net loss of Cdn$3.31 million for such period. Our working capital as at September 30, 2017 was approximately Cdn$12.07 million. We have not generated any significant revenue from product sales to date and it is possible that we will never have sufficient product sales revenue to achieve profitability and positive cash flow. 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 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.

PLAN OF DISTRIBUTION

We may sell the Securities offered by this Prospectus to or through underwriters or dealers, and also may sell those Securities to one or more other purchasers directly or through agents, including sales pursuant to ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers, or if indicated in a Prospectus Supplement, pursuant to delayed delivery contracts, by remarketing firms or by other means. Underwriters may sell Securities to or through dealers. Each Prospectus Supplement will set forth the terms of the offering, including the name or names of any underwriters, dealers or agents and any fees or compensation payable to them in connection with the offering and sale of a particular series or issue of Securities, the public offering price or prices of the Securities and the proceeds from the sale of the Securities.

The Securities may be sold, from time to time, in one or more transactions at a fixed price or prices which may be changed or at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices, including sales in transactions that are deemed to be "at-the-market distributions" as defined in National Instrument 44-102—S*helf Distributions*, including sales made directly on the TSX, NASDAQ or other existing trading markets for the Securities. The prices at which the Securities may be offered may vary as between purchasers and during the period of distribution. If, in connection with the offering of Securities at a fixed price or prices, the underwriters have made a *bona fide* effort to sell all of the Securities at the initial offering price fixed in the applicable Prospectus Supplement, the public offering price may be decreased and thereafter further changed, from time to time, to an amount not greater than the initial public offering price fixed in such Prospectus Supplement, in which case the compensation realized by the underwriters will be decreased by the amount that the aggregate price paid by purchasers for the Securities is less than the gross proceeds paid by the underwriters to us.

The Prospectus Supplement for any of the Securities being offered will set forth the terms of the offering of those Securities, including the name or names of any underwriters, dealers or agents, the offering price of the Securities (in the event the offering is a fixed price distribution), the currency or currencies in which the Securities will be offered, the manner in which the offering price will be determined (in the event the offering is a non-fixed price distribution), the proceeds to the Company from that sale if determinable, any underwriting fees or discounts and other items constituting underwriters' compensation, any public offering price, and any discounts or concessions allowed or re-allowed or paid to dealers or agents. Only underwriters named in the relevant Prospectus Supplement are deemed to be underwriters in connection with the Securities offered by that Prospectus Supplement.

If underwriters purchase Securities as principal, the Securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase those Securities will be subject to certain conditions precedent, and the underwriters will be obligated to purchase all the Securities offered by the Prospectus Supplement if any of such Securities are purchased. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time. The Securities may also be sold directly by the Company at prices and upon terms agreed to by the purchaser and the Company or through agents designated by the Company from time to time. Any agent involved in the offering and sale of the Securities pursuant to this Prospectus will be named, and any commissions payable by the Company to that agent will be set forth, in the applicable Prospectus Supplement. Unless otherwise indicated in the Prospectus Supplement, any agent would be acting on a best efforts basis for the period of its appointment.

Underwriters, dealers and agents who participate in the distribution of the Securities may be entitled under agreements to be entered into with us to indemnification by us against certain liabilities, including liabilities under the U.S. Securities Act of 1933, as amended,, and Canadian securities legislation, or to contribution with respect to payments which such underwriters, dealers or agents may be required to make in respect thereof. Such underwriters, dealers and agents may be customers of, engage in transactions with, or perform services for us in

the ordinary course of business. Except as set forth in a Prospectus Supplement, in connection with any offering of Securities, other than an "at-the-market distribution", the underwriters, dealers or agents, as the case may be, may over-allot or effect transactions intended to stabilize or maintain the market price of the Securities offered at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time.

Any offering of Securities, other than Common Shares, will be a new issue of securities with no established trading market. Unless otherwise specified in the applicable Prospectus Supplement, such Securities will not be listed on any securities exchange. Any underwriters, dealers or agents to or through which Securities other than our Common Shares are sold by us for public offering and sale may make a market in such Securities, but such underwriters, dealers or agents will not be obligated to do so and may discontinue any such market making at any time and without notice. No assurance can be given that a market for trading in Securities of any series or issue will develop or as to the liquidity of any such market, whether or not such Securities are listed on a securities exchange

The place, time of delivery, and other terms of the offered Securities will be described in the applicable Prospectus Supplement.

TRADING PRICE AND VOLUME

The following table sets forth the reported high and low sales prices in Canadian dollars and the cumulative volume of trading of the Common Shares of Aptose on the TSX for the periods indicated below:

	Price Ranges		
	High (Cdn$)	Low (Cdn$)	Trading Volumes
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
January 2018	4.80	2.69	1,965,384
February 2018	3.71	3.16	667,313
March 1-6, 2018	4.10	3.46	148,933

The following table sets forth the reported high and low sales prices in US dollars and the cumulative volume of trading of the Common Shares of Aptose on NASDAQ for the periods indicated below:

	Price Ranges		
	High (US$)	Low (US$)	Trading Volumes
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
January 2018	3.90	2.15	11,914,539
February 2018	3.03	2.51	5,609,507
March 1-6, 2018	3.19	2.68	998,017

DESCRIPTION OF SHARE CAPITAL

Authorized Capital

Our authorized share capital consists of an unlimited number of Common Shares, without par value. As of March 6, 2018, there were 29,302,053 Common Shares issued and outstanding.

Common Shares

The holders of our Common Shares are entitled to receive notice of and to attend and vote at all annual and special meetings of our shareholders. Our Common Shares carry one vote per common share and do not have cumulative voting rights. The holders of our Common Shares are entitled, at the discretion of our board of directors, to receive out of any or all of our profits or surplus properly available for the payment of dividends, any dividend declared by the board of directors and payable by us on our Common Shares. The holders of our Common Shares will participate ratably in any distribution of our remaining property upon our liquidation, dissolution or winding-up or any other return of capital or distribution of our assets among our shareholders for the purpose of winding up our affairs.

Dividend Policy

We have not paid any dividends since our incorporation. We will consider paying dividends in future as our operational circumstances may permit having regard to, among other things, our earnings, cash flow and financial requirements. It is the current policy of the board of directors to retain all earnings to finance our business plan.

DESCRIPTION OF WARRANTS

We may issue Warrants for the purchase of Common Shares. Warrants may be offered separately or together with other Securities offered by this Prospectus, as the case may be. Unless the applicable Prospectus Supplement otherwise indicates, each series of Warrants will be issued under a separate warrant indenture to be entered into between us and one or more banks or trust companies acting as warrant agent. The applicable Prospectus Supplement will include details of the warrant agreements covering the Warrants being offered. The warrant agent will act solely as our agent and will not assume a relationship of agency with any holders of warrant certificates or beneficial owners of Warrants.

The following sets forth certain general terms and provisions of the Warrants offered under this Prospectus. The specific terms of the Warrants, and the extent to which the general terms described in this section apply to those Warrants, will be set forth in the applicable Prospectus Supplement. The terms of any Warrants offered under a Prospectus Supplement may differ from the terms described below.

The particular terms of each issue of Warrants will be described in the related Prospectus Supplement. This description will include some or all of the following:

- the designation and aggregate number of Warrants;
- the price at which the Warrants will be offered;
- the currency or currencies in which the Warrants will be offered;
- the designation and terms of our Common Shares purchasable upon exercise of the Warrants;
- the date on which the right to exercise the Warrants will commence and the date on which the right will expire;
- the number of Common Shares that may be purchased upon exercise of each Warrant and the price at which and currency or currencies in which our Common Shares may be purchased upon exercise of each Warrant;
- the designation and terms of any Securities with which the Warrants will be offered, if any, and the number of the Warrants that will be offered with each security;
- the date or dates, if any, on or after which the Warrants and the related Securities will be transferable separately;
- if applicable, whether the Warrants will be subject to redemption or call and, if so, the terms of such redemption or call provisions;
- material United States and Canadian tax consequences of owning the Warrants; and
- any other material terms or conditions of the Warrants.

Each Warrant will entitle the holder to purchase Common Shares, as specified in the applicable Prospectus Supplement at the exercise price that we describe therein. Unless we otherwise specify in the applicable Prospectus Supplement, holders of the Warrants may exercise the Warrants at any time up to the specified time on the expiration date that we set forth in the applicable Prospectus Supplement. After the close of business on the expiration date, unexercised Warrants will become void.

The warrant indenture, if any, and the warrant certificate will specify that upon the subdivision, consolidation, reclassification or other material change of our Common Shares or any other reorganization, amalgamation, merger or sale of all or substantially all of our assets, the Warrants will thereafter evidence the right of the holder to receive the Securities, property or cash deliverable in exchange for or on the conversion of or in respect of our Common Shares to which the holder of a common share would have been entitled immediately after such event. Similarly, any distribution to all or substantially all of the holders of Common

Shares of rights, options, warrants, evidences of indebtedness or assets will result in an adjustment in the number of Common Shares to be issued to holders of Warrants.

Prior to the exercise of any Warrants to purchase Common Shares, holders of the Warrants will not have any of the rights of holders of the underlying Common Shares, including the right to receive payments of dividends, if any, on the underlying Common Shares, or to exercise any applicable right to vote.

DESCRIPTION OF UNITS

We may issue Units comprised of one or more of the other Securities that may be offered under this Prospectus, in any combination. The following information, together with the additional information we may include in any applicable Prospectus Supplements, summarizes the material terms and provisions of any such the Units that we may offer under this Prospectus. While the information below will apply generally to any Units that we may offer under this Prospectus, we will describe the particular terms of any series of Units in detail in the applicable Prospectus Supplement. The terms of any Units offered under a Prospectus Supplement may differ from the general terms described below.

We may file the form of unit agreement, if any, between us and a unit agent that describes the terms and conditions of the series of Units we are offering, and any supplemental agreements, concurrently with the filing of the applicable Prospectus Supplement under which such series of Units are offered. This summary is subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement, if any, and any supplemental agreements applicable to a particular series of Units. We urge you to read the applicable Prospectus Supplements related to the particular series of Units that we sell under this Prospectus, as well as the complete unit agreement, if any, and any supplemental agreements that contain the terms of the Units.

We may issue Units comprising one or more of Common Shares and Warrants in any combination. Each Unit will be issued so that the holder of the Unit is also the holder of each security included in the Unit. Thus, the holder of a Unit will have the rights and obligations of a holder of each included security. The unit agreement, under which a Unit may be issued, if any, may provide that the Securities included in the Unit may not be held or transferred separately, at any time or at any time before a specified date. We will describe in the applicable Prospectus Supplement the terms of the series of Units.

The provisions described in this section, as well as those described under “Description of Share Capital” and “Description of Warrants” will apply to each Unit and to any Common Share or Warrant included in each Unit, respectively.

We may issue Units in such amounts and in numerous distinct series as we determine.

RISK FACTORS

An investment in our Securities is highly speculative and subject to a number of known and unknown risks. Only those persons who can bear the risk of the entire loss of their investment should purchase our Securities. You should carefully consider the risk factors below, those in our AIF for the fiscal year ended December 31, 2016 incorporated by reference herein, the other information contained in this Prospectus, as updated by our subsequent filings under the Exchange Act and Canadian securities laws, and the risk factors and other information contained in any applicable Prospectus Supplement, before purchasing any of our Securities. Any of the matters highlighted in these risk factors could have a material adverse effect on our business, results of operations and financial condition, causing an investor to lose all, or part of, its, his or her investment.

The risks and uncertainties described in this Prospectus and the documents incorporated by reference into this Prospectus are not the only ones we face. Additional risks and uncertainties that we are not aware of or focused on, or that we currently deem to be immaterial, may also impair our business operations and cause the trading price of our Securities to decline.

Clinical trials are long, expensive and uncertain processes and the FDA or Health Canada may ultimately not approve any of our product candidates.

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.

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 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 Institutional Review Boards, 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 Institutional Review Boards 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 Institutional Review Boards 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.

CERTAIN INCOME TAX CONSIDERATIONS

The applicable Prospectus Supplement may describe certain Canadian federal income tax consequences to an investor who is a resident of Canada or who is a non-resident of Canada of acquiring, owning or disposing of any Securities offered thereunder, including to the extent applicable, whether any dividends or interest relating to the Securities will be subject to Canadian non-resident withholding tax.

The applicable Prospectus Supplement may also describe certain material U.S. federal income tax consequences of the acquisition, ownership and disposition of any Securities offered thereunder by an initial investor who is subject to United States federal taxation.

LEGAL MATTERS

Unless otherwise specified in a Prospectus Supplement, certain legal matters relating to the offering of Securities under this Prospectus will be passed upon by McCarthy Tétrault LLP, with respect to matters of Canadian law, and Dorsey & Whitney LLP, Vancouver, British Columbia and Seattle, Washington, with respect to matters of United States law. In addition, certain legal matters in connection with any offering of Securities under this Prospectus will be passed upon for any underwriters, dealers or agents by counsel to be designated at the time of the offering by such underwriters, dealers or agents.

As of the date hereof, the partners and associates of McCarthy Tétrault LLP, as a group, beneficially owned, directly or indirectly, less than 1% of the outstanding Common Shares of the Company or any of its associates or affiliates.

Any securities offered pursuant to this Prospectus, including by way of at-the-market offerings, will be conducted in accordance with applicable securities legislation in Canada and the United States, and, if applicable, will be subject to regulatory approval or exemptive relief.

AUDITOR

Our auditor is KPMG LLP, Chartered Professional Accountants, Bay Adelaide Centre, 333 Bay Street, Suite 4600, Toronto, Ontario, Canada, M5H 2S5 and they have confirmed they are independent with respect to the Company within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation or regulations.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for our Common Shares is Computershare Investor Services Inc. at its principal offices in Toronto, Ontario, Canada.

AGENT FOR SERVICE OF PROCESS

Dr. William G. Rice, President, Chief Executive Officer and Chairman of the Board of Directors of the Company, Gregory K. Chow, Senior Vice President and Chief Financial Officer of the Company, Dr. Denis Burger, a director of the Company and Dr. Erich Platzer, a director of the Company all reside outside of Canada and have appointed Aptose Biosciences Inc., 5955 Airport Road, Suite 228, Mississauga, Ontario, Canada L4V 1R9 as agent for service of process.

Purchasers are advised that it may not be possible for investors to enforce judgments obtained in Canada against any person or company that is incorporated, continued or otherwise organized under the laws of a foreign jurisdiction or resides outside of Canada, even if the party has appointed an agent for service of process.

DOCUMENTS FILED AS PART OF THE REGISTRATION STATEMENT

The following documents have been or will be filed with the SEC as part of the registration statement of which this Prospectus forms a part: the documents referred to under “Documents Incorporated by Reference”; consent of KPMG LLP; consent of McCarthy Tétrault LLP; and powers of attorney from directors and officers of the Company.

PART II

INFORMATION NOT REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

Indemnification of Directors and Officers.

Under the Canada Business Corporations Act (the "CBCA"), the registrant may indemnify its current or former directors or officers or another individual who acts or acted at the registrant's request as a director or officer, or an individual acting in a similar capacity, of another entity, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of his or her association with the registrant or another entity, and the individual seeking indemnity shall have a right to such indemnity if such individual was not judged by the court or other competent authority to have committed any fault or omitted to do anything that such individual ought to have done. The CBCA also provides that the registrant may advance moneys to such an individual for the costs, charges and expenses of such a proceeding.

The CBCA also provides that the registrant may with the approval of a court, indemnify such an individual or advance moneys against all costs, charges and expenses reasonably incurred by the individual in connection with an action by or on behalf of the registrant or other entity to procure a judgment in its favour, to which the individual is made a party because of the individual's association with the registrant or other entity at the registrant's request.

However, indemnification under any of the foregoing circumstances is prohibited under the CBCA unless the individual:

- acted honestly and in good faith with a view to the registrant's best interests, or the best interests of the other entity for which the individual acted as director or officer or in a similar capacity at the registrant's request;
- in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, the individual had reasonable grounds for believing that his or her conduct was lawful; and
- was not judged by the court or other competent authority to have committed any fault or omitted to do anything that the individual ought to have done.

The registrant's by-law No. 2 provides that the registrant will indemnify its directors or officers, former directors or officers or other individuals who act or have acted at the registrant's request as a director or officer, or in a similar capacity, of another entity, and his or her heirs and legal representatives to the extent permitted by the CBCA.

The registrant's by-law No. 2 further provides that, except as otherwise required by the CBCA, the registrant may from time to time indemnify and save harmless any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the registrant) by reason of the fact that he or she is or was an employee or agent of the registrant, or is or was serving at the request of the registrant as an employee, agent of or participant in another entity against expenses (including legal fees), judgments, fines and any amount actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he or she acted honestly and in good faith with a view to the best interests of the registrant or, as the case may be, to the best interests of the other entity for which he or she served at the registrant's request and, with respect to any criminal or administrative action or proceeding that is enforced by a monetary penalty, had reasonable grounds for believing that his or her conduct was lawful. The termination of any action, suit or proceeding by judgment, order, settlement or conviction will not, of itself, create a presumption that the person did not act honestly and in good faith with a view to the best interests of the registrant or other entity and, with respect to any criminal or administrative action or proceeding that is enforced by a monetary penalty, had no reasonable grounds for believing that his or her conduct was lawful.

The registrant has entered into indemnity agreements with its directors and certain officers pursuant to which it has agreed to indemnify its officers and directors for:

(a) all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by them in respect of any civil, criminal or administrative action or proceeding to which they are made a party by reason of being or having been a director and/or officer of the registrant, if (i) they acted honestly and in good faith with a view to the best interests of the registrant, and (ii) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, they had reasonable grounds for believing that their conduct was lawful.

(b) all costs, charges and expenses reasonably incurred by them in connection with any action by or on behalf of the registrant to procure a judgment in the registrant's favour to which they are made a party by reason of being or having been a director and/or officer of the registrant.

(c) all costs, charges and expenses reasonably incurred by them in connection with the defense of any civil, criminal or administrative proceeding to which they are made a party by reason of being or having been a director and/or officer of the registrant if they have been substantially successful on the merits in their defense of the action or proceeding and they fulfil the conditions set forth in the two foregoing clauses (a)(i) and (a)(ii) above.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is therefore unenforceable.

EXHIBITS

Exhibit	Description
4.1	Annual report on form 20-F for the fiscal year ended December 31, 2016 (incorporated by reference to the Annual Report on Form 20-F of Aptose Biosciences Inc., filed on March 30, 2017) (File No. 001-32001).
4.2	Annual audited consolidated financial statements of the Company and the notes thereto for the years ended December 31, 2016 and 2015 as well as the seven months ended December 31, 2014, together with the auditor's report thereon (included in Exhibit 4.1).
4.3	Management's discussion and analysis for the year ended December 31, 2016 (included as Exhibit 15.1 to Exhibit 4.1 above)
4.4	Unaudited condensed consolidated interim financial statements and the notes thereto for the three and nine months ended September 30, 2017 and 2016 (incorporated by reference to Exhibit 99.1 to the Report on Form 6-K of Aptose Biosciences Inc. that includes such document, filed on November 14, 2017) (File No. 001-32001).
4.5	Management's discussion and analysis for the three and nine months ended September 30, 2017 (incorporated by reference to Exhibit 99.2 to the Report on Form 6-K of Aptose Biosciences Inc. that includes such document, filed on November 14, 2017) (File No. 001-32001).
4.6	Management proxy circular, dated April 18, 2017, with respect to the annual meeting of the shareholders of Aptose held on June 6, 2017 (incorporated by reference to Exhibit 99.1 to the Report on Form 6-K of Aptose Biosciences Inc., filed on May 10, 2017) (File No. 001-32001).
4.7	Material change report, dated January 24, 2017 (incorporated by reference to the Report on Form 6-K of Aptose Biosciences Inc., filed on February 1, 2018) (File No. 001-32001).
4.9	Material change report, dated October 30, 2017 (incorporated by reference to the Report on Form 6-K of Aptose Biosciences Inc. that includes such document, filed on October 30, 2017) (File No. 001-32001).
4.10	Material change report, dated March 8, 2018 (incorporated by reference to Exhibit 99.1 to the Report on Form 6-K of Aptose Biosciences Inc., filed on March 8, 2018).
5.1	Consent of KPMG LLP.
6.1*	Powers of Attorney .

* Previously filed.

PART III

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

Item 1. Undertaking.

Aptose Biosciences Inc. undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Securities and Exchange Commission (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 F-10 or to transactions in said securities.

Item 2. Consent to Service of Process.

Aptose Biosciences Inc. has previously filed with the Commission a written Appointment of Agent for Service of Process and Undertaking on FormF-X.

Any change to the name or address of the agent for service of Aptose Biosciences Inc. shall be communicated promptly to the Commission by an amendment to Form F-X referencing the file number of this Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Aptose Biosciences Inc. certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-10 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in San Diego, California, on March 8, 2018.

APTOSE BIOSCIENCES INC.

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

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated and on March 8, 2018:

Signature	Title
/s/William G. Rice William G. Rice	President & Chief Executive Officer and Director (Chairman of the Board of Directors) (Principal Executive Officer)
/s/ Gregory Chow Gregory Chow	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
* Denis R. Burger	Director

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Signature	Title
*	Director
Brad Thompson	
*	Director
Erich M. Platzer	
*	Director
Mark Vincent	
*	Director
Warren Whitehead	

*By: /s/ William G. Rice
William G. Rice
Attorney-in-fact

AUTHORIZED REPRESENTATIVE

Pursuant to the requirements of Section 6(a) of the Securities Act of 1933, the undersigned has signed this Registration Statement, solely in its capacity as the duly authorized representative of Aptose Biosciences Inc. in the United States, on March 8, 2018.

APTOSE BIOSCIENCES U.S. INC.

By: /s/ William G. Rice
Name: William G. Rice
Title: Chief Executive Officer

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6.1*	Powers of Attorney.

* Previously filed.

Exhibit 5.1

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 use of our audit report dated March 28, 2017, on the financial statements of Aptose Biosciences Inc., which comprise the consolidated statements of financial position as at December 31, 2016 and December 31, 2015, the consolidated statements of comprehensive income, changes in equity and cash flows for each of the years in the two-year period ended December 31, 2016, and the seven-month period ended December 31, 2014, and notes, comprising a summary of significant accounting policies and other explanatory information, which are incorporated by reference.

Yours very truly,

/s/ KPMG LLP

March 7, 2018
Toronto, Canada