UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 1
To
Form F-1
REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

Aptose Biosciences Inc.

(Exact Name of Registrant as Specified in Its Charter)

Not Applicable (Translation of Registrant's name into English)

Canada (State or Other Jurisdiction of Incorporation or Organization) 2836 (Primary Standard Industrial

Classification Code Number)

98-1136802 (I.R.S. Employer Identification Number)

5955 Airport Road, Suite 228 Mississauga, Ontario L4V 1R9 Canada (647) 479-9828

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Aptose Biosciences U.S. Inc. 12270 High Bluff Drive, Suite 120 San Diego, California 92130

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

Copy to:

Daniel M. Miller Dorsey & Whitney LLP Suite 1070, 1095 West Pender Street Vancouver, British Columbia V6E 2M6 Canada Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933.

Emerging growth company ⊠

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

		Proposed	Proposed	
		Maximum	Maximum	
Title Of Each Class	Amount To Be	Offering Price	Aggregate	Amount Of
Of Securities To Be Registered	Registered(1)	Per Share(2)	Offering Price(1)	Registration Fee(3)
Common shares, no par value	6,041,567	\$2.05	\$12,385,213	\$1,542

- (1) Represents 500,000 common shares currently outstanding and up to 5,541,567 common shares that are issuable pursuant to a common shares purchase agreement with the selling shareholder named herein. Pursuant to Rule 416(a) under the Securities Act of 1933, this registration statement also covers an indeterminate number of additional common shares that may become issuable to prevent dilution from stock splits, stock dividends and similar transactions.
- (2) Pursuant to Rule 457(c) under the Securities Act of 1933, calculated on the basis of the average of the high and low prices per share of the registrant's common shares as reported on the Nasdaq Capital Market on November 22, 2017.
- (3) Previously paid.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the United States Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Commission, acting pursuant to such Section 8(a), may determine.

EXPLANATORY NOTE

This Amendment No.1 to the Registration Statement on Form F-1 of Aptose Biosciences Inc. (File No. 333-221783) is being filed solely for the purpose of filing or incorporating by reference Exhibits 5.1, 21.1 and 23.2 to such Registration Statement and reflecting such filings in Item 8 of such Registration Statement and in the Exhibit Index thereto. No change is being made to the prospectus constituting Part I of such Registration Statement or Items 6, 7 or 9 of Part II of such Registration Statement. Accordingly, Part I and Items 6, 7 and 9 of Part II have not been included herein.

PART II INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 8. Exhibits and Financial Statement Schedules

Exhibit	
Number	Description
3.1	Articles of Incorporation, Arrangement and Amendment (incorporated herein by reference to Exhibit 99.3 to the Registrant's Current Report on Form 6-K filed with the SEC on June 12, 2015)
3.2	By-law #2 of the Company (incorporated herein by reference to Exhibit 99.2 to the Registrant's Current Report on Form6-K filed with the SEC on June 12, 2015)
4.1	Indemnification Agreement dated July 10, 2007 between Old Lorus and the Company (incorporated herein by reference to Exhibit 99.10 to the Registrant's Current Report on Form 6-K filed with the SEC on September 4, 2007)
4.2	Form of Promissory note and Warrant issued June 19, 2013 (incorporated herein by reference to Exhibit 2.25 to the Registrant's Annual Report on Form 20-F filed with the SEC on May 16, 2014)
4.3	Form of Convertible Promissory note issued September 26, 2013 (incorporated herein by reference to Exhibit 2.26 to the Registrant's Annual Report on Form 20-F filed with the SEC on May 16, 2014)
5.1**	Opinion of McCarthy Tétrault LLP regarding validity of the securities offered
10.1	Underwriting Agreement dated November 22, 2013 in connection with the December 2013 public offering (incorporated herein by reference to Exhibit 2.27 to the Registrant's Annual Report on Form 20-F filed with the SEC on May 16, 2014)
10.2	Underwriting Agreement dated March 27, 2014 in connection with the April 2014 public offering (incorporated herein by reference to Exhibit 2.28 to the Registrant's Annual Report on Form 20-F filed with the SEC on May 16, 2014)
10.3	Share Option Plan as amended May 5, 2015 (incorporated herein by reference to Exhibit 99.2 to the Registrant's Current Report on Form6-K filed with the SEC on June 12, 2015)
10.4	Stock Incentive Plan as adopted May 5, 2015 (incorporated herein by reference to Exhibit 99.1 to the Registrant's Current Report on Form6-K filed with the SEC on June 12, 2015)
10.5	Form of Officer and Director Indemnity Agreement (incorporated herein by reference to Exhibit 4.2 to the Registrant's Annual Report on Form 20-F filed with the SEC on November 21, 2006)
10.6	Intentionally omitted
10.7	Executive Employment Agreement between the Company and Dr. William G. Rice, dated October 25, 2013(incorporated herein by reference to Exhibit 4.9 to the Registrant's Annual Report on Form 20-F filed with the SEC on May 16, 2014)
10.8	Amendment to the Employment agreement between the Company and Dr. William G. Rice dated August 19, 2014. (incorporated herein by reference to Exhibit 4.9A to the Registrant's Annual Report on Form 20-F filed with the SEC on March 4, 2015)

10.9	Executive Employment Agreement between the Company and Gregory K. Chow, dated November 29, 2013 (incorporated herein by reference to Exhibit 4.9.1 to the Registrant's Annual Report on Form 20-F filed with the SEC on May 16, 2014)
10.10	Executive Employment Agreement between the Company and Avanish Vellanki, dated November 29, 2013 (incorporated herein by reference to Exhibit 4.9.2 to the Registrant's Annual Report on Form 20-F filed with the SEC on May 16, 2014)
10.11	Sales Agreement between the Company and Cowen and Company, LLC, dated April 2, 2015 (incorporated herein by reference to Exhibit 1.1 to the Registrant's Current Report on Form 6-K filed with the SEC on April 6, 2015)
10.12	Option and License agreement and related amendments between the Company and CrystalGenomics, Inc., dated March 19, May 13, May 19 and June 1, 2016 (incorporated herein by reference to Exhibit 1.1 to the Registrant's Current Report on Form 6-K filed with the SEC on June 8, 2016)
10.13	Common Shares Purchase Agreement between the Company and Aspire Capital Fund, LLC, dated October 27, 2017 (incorporated herein by reference to Exhibit 99.1 to the Registrant's Current Report on Form 6-K filed with the SEC on October 30, 2017)
10.14	Registration Rights Agreement between the Company and Aspire Capital Fund, LLC, dated October 27, 2017 (incorporated herein by reference to Exhibit 99.2 to the Registrant's Current Report on Form 6-K filed with the SEC on October 30, 2017)
21.1	List of subsidiaries (incorporated herein by reference to Exhibit 8.1 to the Registrant's Annual Report on Forn20-F filed with the SEC on March 30, 2017)
23.1*	Consent of KPMG LLP
23.2**	Consent of McCarthy Tétrault LLP (included in Exhibit 5.1)

Previously filed. Filed herewith

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-1 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, on December 19, 2017.

APTOSE BIOSCIENCES INC.

By: /s/ William G. Rice

Name: William G. Rice, Ph.D.

Title: Chairman and Chief Executive Officer

By: /s/ Gregory K. Chow

Name: Gregory K. Chow Title: Chief Financial 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 December 19, 2017:

NAME	TITLE
/s/ William G. Rice Dr. William G. Rice	Chief Executive Officer and Director (principal executive officer)
/s/ Gregory K. Chow Gregory K. Chow	Chief Financial Officer (principal financial officer and principal accounting officer)
* Dr. Denis Burger	Director
* Dr. Erich Platzer	Director
* Dr. Brad Thompson	Director
* Dr. Mark Vincent	Director
*	Director
Warren Whitehead	
*By: /s/ Gregory K. Chow Gregory K. Chow	

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 December 19, 2017.

WILLIAM G. RICE, PH.D.

By: /s/ William G. Rice

Name: William G. Rice, Ph.D.
Title: Chairman and Chief Exc

Chairman and Chief Executive Officer

EXHIBIT INDEX

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Previously filed. Filed herewith

McCarthy Tétrault LLP Suite 5300, TD Bank Tower Box 48, 66 Wellington Street West Toronto (Ontario) M5K 1E6 Canada Tel: 416-362-1812 Fax: 416-868-0673



December 19, 2017

Aptose Biosciences Inc. 5955 Airport Road, Suite 228 Toronto, Ontario L4V 1R9

Dear Sir/Mesdames:

We have acted as Canadian counsel to Aptose Biosciences Inc. (the "Company") in connection with the preparation and filing with the United States Securities and Exchange Commission (the "Commission") under the United States Securities Act of 1933, as amended (the "Securities Act"), of the Company's Registration Statement on Form F-1 initially filed on November 28, 2017 and amended on the date hereof (the "Registration Statement"), relating to the resale from time to time by Aspire Capital Fund LLC ("Aspire") of up to an aggregate of 6,041,567 of the Company's common shares (the 'Common Shares").

We understand that 678,572 of the Common Shares have been issued to Aspire (collectively, the **'Initial Shares**') pursuant to a common shares purchase agreement between the Company and Aspire dated as of October 27, 2017 (the **'Common Share Purchase Agreement**'), and the remainder of the Common Shares (the **'Placement Shares**'') are issuable from time to time to Aspire pursuant to the terms of the Common Share Purchase Agreement.

Scope of Review, Assumptions and Qualifications

As counsel, we have made such investigations and examined the originals, or duplicate, certified, conformed, facsimiled or photostatic copies of such corporate records, agreements, documents and other instruments and have made such other investigations as we have considered necessary or relevant for the purposes of this opinion, including:

- (a) the Registration Statement, including the prospectus contained therein;
- (b) the Common Share Purchase Agreement;
- (c) the registration rights agreement dated as of October 27, 2017 between the Company and Aspire (the 'Registration Rights Agreement');
- (d) the articles and by-laws of Aptose;
- (e) a certificate of compliance dated December 19, 2017 issued in respect of Aptose pursuant to the Canada Business Corporations Act (the "Certificate of Compliance"); and



(f) a certificate of Gregory K. Chow, the Senior Vice President, Chief Financial Officer and Secretary of the Company, as to certain factual matters dated the date hereof

The Common Share Purchase Agreement and the Registration Rights Agreement are collectively referred to herein as the "Transaction Documents".

We have also examined originals or copies, certified or otherwise identified to our satisfaction, of such records of the Company and such agreements, certificates of public officials, certificates of officers, or other representatives of the Company, and such other documents as we have deemed necessary or appropriate as a basis for the opinion set forth herein.

In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, conformed, photostatic, electronic, or facsimile copies and the authenticity of the originals of such documents. In making our examination of executed documents or documents which may be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and execution and delivery by such parties, of such documents and that such documents constitute or will constitute valid and binding obligations of the parties thereto. We have also assumed that the Certificate of Compliance will continue to be accurate as at the date of issuance of any Placement Shares.

In connection with our opinions expressed below, we have assumed that, at or prior to the time of the delivery of any such Placement Shares, the authorization to issue the Placement Shares pursuant to the Common Share Purchase Agreement will not have been modified or rescinded by the Board of Directors of Aptose and there will not have occurred any change in law affecting the validity or enforceability of such issuance of Placement Shares. We have also assumed that neither the issuance and delivery of the Placement Shares, nor the compliance by Aptose with the terms of the Common Share Purchase Agreement, will violate any applicable federal, provincial or state law or will result in a violation of any provision of any instrument or agreement then binding upon Aptose or any restriction imposed by any court or governmental body having jurisdiction over Aptose.

The opinions expressed herein are limited to the federal laws of Canada applicable therein (the 'Applicable Law').

Opinion

Based upon and subject to the foregoing, we are of the opinion that:

- 1. The Initial Shares have been validly issued as fully paid and non-assessable common shares of the Company.
- 2. The Placement Shares, when issued, sold and delivered in the manner and for the consideration stated in the Common Share Purchase Agreement, and upon payment of the consideration provided therein to the Company, will be validly issued as fully paid and non-assessable common shares of the Company.



We hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement. We also consent to the reference to our firm under the heading "Enforceability of Civil Liabilities" in the prospectus contained in the Registration Statement. In giving this consent, we do not thereby admit that we are in the category of persons whose consent is required under the Securities Act or the rules and regulations promulgated thereunder. This opinion is expressed as of the date hereof unless otherwise expressly stated, and we disclaim any undertaking to advise you of any subsequent changes of the facts stated or assumed herein or any subsequent changes in Applicable Law.

Yours truly,

/s/ McCarthy Tétrault LLP