UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 6-K/A

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

For the month of April 2017

Commission File Number: 001-32001

Aptose Biosciences Inc.

(Translation of registrant's name into English)

5955 Airport Road, Suite 228 Mississauga, Ontario L4V 1R9 Canada

 $(Address\ of\ principal\ executive\ of fices)$

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

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

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

EXPLANATORY NOTE

Aptose Biosciences Inc. (the "Registrant") is filing this amendment on Form 6-K/A ("Amendment") to its Report on Form 6-K, furnished to the SEC on April 21, 2017 (the "Original 6-K"), solely to furnish a corrected version of Exhibit 99.1 to the Original 6-K. The Original 6-K omitted to include the consent of KPMG LLP with respect to the incorporation by reference of KPMG's audit report to certain financial statements of the Registrant into the registration statement on Form F-3 (File No. 333-200660) of the Registrant. Except as specifically described in this explanatory note, this Amendment does not amend, modify or update any disclosures contained in the Original 6-K, including with respect to any events occurring after the furnishing of the Original 6-K.

INCORPORATION BY REFERENCE

Exhibit 99.1 to this Report of Foreign Issuer on Form 6-K of Registrant is hereby incorporated by reference into the registration statement on Form F-3 (File No. 333-200660) and into the registration statement on Form S-8 (File No. 333-205158) of the Registrant.

DOCUMENTS FILED AS PART OF THIS FORM 6-K

See Exhibit Index hereto.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Aptose Biosciences Inc.

Date: April 26, 2017

By: /s/ Gregory Chow

Name: Gregory Chow

Title: Senior Vice President and Chief Financial Officer

99.1 Consent of KPMG



KPMG LLP 100 New Park Place Suite 1400 Vaughan, Ontario L4K 0J3

Telephone (905) 265-5900 Fax (905) 265-6390 www.kpmg.ca

Consent of Independent Registered Public Accounting Firm

The Board of Directors Aptose Biosciences Inc.

We consent to the incorporation by reference in the registration statement on Form F-3 (333-200660) and in the registration statement on Form S-8 (No. 333-205158), each of Aptose Biosciences Inc., of our report dated March 28, 2017 on the consolidated statement of financial position of Aptose Biosciences Inc. as of December 31, 2016 and 2015, and the related consolidated statements of loss and comprehensive loss, changes in shareholders' equity and cash flows for each of the years in the two-year period ended December 31, 2016 and the seven-month period ended December 31, 2014, and notes, comprising a summary of significant accounting policies and other explanatory information, which report appears in the annual report on Form 20-F of Aptose Biosciences Inc. for the year ended December 31, 2016.

Chartered Accountants, Licensed Public Accountant Toronto, Canada

KPMG LLP

March 28, 2017

KPMG LLP is a Canadian limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

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