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

Form 6-K

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

For the month of January 2017

Commission File Number: 001-32001

Aptose Biosciences Inc.

(Translation of registrant's name into English)

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

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

Form 20-F☑ Form 40-F ☐

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

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

INCORPORATION BY REFERENCE

This Report on Form 6-K is hereby incorporated by reference into the Registration Statement on Form F-3 of Aptose Biosciences Inc. (File No. 333-200660).

DOCUMENTS FILED AS PART OF THIS FORM 6-K

See the 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: January 31, 2018

By: /s/ Gregory Chow
Name: Gregory Chow
Title: Senior Vice President and Chief Financial Officer

EXHIBIT INDEX

Exhibit	Description
99.1	Material Change Report, dated January 24, 2017

EXHIBIT 99.1

Form 51-102F3
Material Change Report

Item 1 Name and Address of Company

Aptose Biosciences Inc. ("**Aptose**" or the "**Company**")
5955 Airport Road, Suite 228
Mississauga, ON
L4V 1R9

Item 2 Date of Material Change

January 23, 2017

Item 3 News Release

A news release reporting the material change was issued by Aptose on January 23, 2017 in Canada and in the United States.

Item 4 Summary of Material Change

On January 23, 2017, Aptose announced that it will prioritize its resources toward the development of CG'806, an oral preclinical compound being developed for patients with FLT3-driven acute myeloid leukemia ("**AML**") and certain BTK-driven B-cell malignancies. Aptose will temporarily delay clinical activities with APTO-253, a phase 1 stage compound for AML, in order to elucidate the cause of recent manufacturing setbacks related to the intravenous formulation of APTO-253, with the intention of restoring the molecule to a state supporting clinical development and partnering. Although Aptose has two compelling cancer drugs, current resources can support the full development activities of only one at this time.

Item 5 Full Description of Material Change

On January 23, 2017, Aptose announced that it will prioritize its resources toward the development of CG'806, an oral preclinical compound being developed for patients with FLT3-driven AML and certain BTK-driven B-cell malignancies. Aptose will temporarily delay clinical activities with APTO-253, a phase 1 stage compound for AML, in order to elucidate the cause of recent manufacturing setbacks related to the intravenous formulation of APTO-253, with the intention of restoring the molecule to a state supporting clinical development and partnering.

Although Aptose has two compelling cancer drugs, current resources can support the full development activities of only one at this time. Recent advances with CG'806 have elevated this agent as having the best risk-reward profile to pursue with those resources. Such data established CG'806 as a well-differentiated pan-FLT3 inhibitor that demonstrates tumor eradication in the absence of toxicity in AML xenograft models, and it is on track for development as a therapy for certain AML patients. In addition, CG'806 is a potent non-covalent inhibitor of proliferation among certain BTK-driven B-cell derived cancer cells. The encouraging properties of CG'806, including its potency against well-established targets

in diseases of severe medical need, warrant expeditious advancement and prioritization of resources toward this molecule.

In November 2015, Aptose's phase 1b trial of APTO-253 in patients with AML was placed on clinical hold. Since that time, the company has actively evaluated multiple formulation and production methodologies with the goal of developing a superior IV formulation. After successfully manufacturing multiple non-cGMP batches of a new drug product formulation for APTO-253, including a batch that has been stable and soluble for over six months, the company recently encountered an additional manufacturing setback which further delayed the return of APTO-253 to the clinic. While Aptose has made significant advances in understanding the novel c-Myc inhibitory mechanism of APTO-253, additional time will be required to define the cause of the cGMP manufacturing delay and to potentially restore APTO-253 to a state it can be developed clinically and partnered.

Based on information currently available, Aptose expects to report total cash and cash equivalents to be at a similar level as at September 30, 2016. As a result of activities to reprioritize its resources towards the development of CG'806, the cash on hand, which includes additional cash raised through its At-The-Market facility, is expected to provide sufficient resources to fund research and development and operations into Q4, 2017. Information reported above with respect to the financial year ended December 31, 2016 are preliminary and are subject to change and adjustment as the company's 2016 financial results are finalized. Accordingly, investors are cautioned not to place undue reliance on the foregoing guidance. The company does not intend to continue to provide preliminary results in the future. Aptose expects to report its financial results for the financial year ended December 31, 2016 on or around March 14, 2016.

Forward Looking Statements

This material change reports contains forward-looking statements within the meaning of Canadian and U.S. securities laws, including, but not limited to, statements relating to the reprioritization of the development of CG'806, the clinical potential and favorable properties of CG'806, the suspension of the development of APTO-253, the expected cash situation of the Company and its expected cash runway, and statements relating to the Company's plans, objectives, expectations and intentions and other statements including words such as "continue", "expect", "intend", "will", "should", "would", "may", and other similar expressions. Such statements reflect our current views with respect to future events and are subject to risks and uncertainties and are necessarily 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 described in this material change report. Such factors could include, among others: our ability to obtain the capital required for research and operations; the inherent risks in early stage drug development including demonstrating efficacy; development time/cost and the regulatory approval process; the progress of our clinical trials; our ability to find and enter into agreements with potential partners; our ability to attract and retain key personnel; changing market conditions; inability of new manufacturers to produce acceptable batches of GMP in sufficient quantities;

unexpected manufacturing defects; and other risks detailed from time-to-time in our ongoing quarterly filings, annual information forms, annual reports and annual filings with Canadian securities regulators and the United States Securities and Exchange Commission.

Should one or more of these risks or uncertainties materialize, or should the assumptions set out in the section entitled "Risk Factors" in our filings with Canadian securities regulators and the United States Securities and Exchange Commission underlying those forward-looking statements prove incorrect, actual results may vary materially from those described herein. These forward-looking statements are made as of the date of this material change report and we do not intend, and do not assume any obligation, to update these forward-looking statements, except as required by law. We cannot assure you that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not Applicable.

Item 7 Omitted Information

Not Applicable.

Item 8 Executive Officer

For further information please contact:
Aptose Biosciences Inc.
Gregory K. Chow
647-479-9828

Item 9 Date of Report

January 24, 2017