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 UNDER 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, ON
L4V 1R9
(Address of principal executive office)

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 [X] 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):__

On April 19, 2017, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

(c) Exhibit 99.1. Press release dated April 19, 2017

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.
(Registrant)

Date: April 19, 2017

/s/ Gregory K. Chow
Gregory K. Chow
Senior Vice President and Chief Financial Officer

EXHIBIT 99.1

Aptose Biosciences to Present CG'806 Data at AACR Hematologic Malignancies Meeting

SAN DIEGO and TORONTO, April 19, 2017 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. (NASDAQ:APTO) (TSX:APS), a clinical-stage company developing highly differentiated therapeutics that target the underlying mechanisms of cancer, today announced that preclinical data for its pan-FLT3/BTK inhibitor CG'806 will be presented in two separate posters at the 2017 American Association for Cancer Research (AACR) Conference *Hematologic Malignancies: Translating Discoveries to Novel Therapies*, being held May 6-9 in Boston, MA.

Aptose is developing CG'806, a first-in-class pan-FLT3/BTK inhibitor, for acute myeloid leukemia (AML) and other hematologic malignancies. CG'806 is a highly potent inhibitor of the wild type and mutant forms of FLT3 (including internal tandem duplication, or ITD, and mutations of the receptor tyrosine kinase domain and the gatekeeper region), eliminates AML tumors in the absence of toxicity in murine xenograft models, and represents a potential best-in-class therapeutic for patients with FLT3-driven AML. In addition, CG'806 is a reversible, non-covalent, inhibitor of the wild type and mutant forms of the BTK enzymes. The spectrum of activity against specific clusters of kinase enzymes supports the development of CG'806 for AML, certain B cell malignancies and other hematologic malignancies.

Two separate presentations are planned for CG'806. Aptose scientists, with researchers from the Knight Cancer Institute at Oregon Health & Science University (OHSU), will present data related to the potency of CG'806 against various hematologic malignancy cell lines and patient bone marrow specimens. In a separate presentation, Aptose scientists, with researchers from the MD Anderson Cancer Center, will present data demonstrating CG'806's potent activity against AML cells harboring specific wild type or mutant forms of FLT3.

Abstract Details

- Title: "CG'806, a first-in-class FLT3/BTK inhibitor, exhibits potent activity against AML patient samples with mutant or wild-type FLT3, as well as other hematologic malignancy subtypes"
- Presenter: Stephen E. Kurtz, Ph.D, Oregon Health & Science University, Portland, OR
- Date/Time: May 7, 2017 / 1:00 p.m. ET – 3:00 p.m. ET
- Location: Harbor 1/2, Westin Boston Waterfront, Boston, MA
- Session: Poster Session

Abstract Details

- Title: "CG'806, a first-in-class FLT3/BTK inhibitor, exerts superior potency against AML cells harboring ITD, TKD and gatekeeper mutated FLT3 or wild-type FLT3"
- Presenter: Weiguo Zhang, M.D., Ph.D, UT MD Anderson Cancer Center, Houston, TX
- Date/Time: May 7, 2017 / 1:00 p.m. ET – 3:00 p.m. ET
- Location: Harbor 1/2, Westin Boston Waterfront, Boston, MA
- Session: Poster Session

About CG'806

CG'806 is a once daily, oral, first-in-class pan-FLT3/BTK inhibitor. This small molecule demonstrates potent inhibition of mutant forms of FLT3 (including internal tandem duplication, or ITD, and mutations of the receptor tyrosine kinase domain and gatekeeper region), eliminates AML tumors in the absence of toxicity in murine xenograft models, and represents a potential best-in-class therapeutic for patients with FLT3-driven AML. Likewise, CG'806 demonstrates potent, non-covalent inhibition of the Cys481Ser mutant of the BTK enzyme, as well as other oncogenic kinases operative in B cell malignancies, suggesting the CG'806 may be developed for CLL and MCL patients that are resistant/refractory/intolerant to covalent BTK inhibitors.

About Aptose

Aptose Biosciences is a clinical-stage biotechnology company committed to developing personalized therapies addressing unmet medical needs in oncology. Aptose is advancing new therapeutics focused on novel cellular targets on the leading edge of cancer. The company's small molecule cancer therapeutics pipeline includes products designed to provide single agent efficacy and to enhance the efficacy of other anti-cancer therapies and regimens without overlapping toxicities. For further information, please visit www.aptose.com.

Forward Looking Statements

This press release may contain forward-looking statements within the meaning of Canadian and U.S. securities laws, including, but not limited to, 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 press release. Such factors could include, among others: our ability to obtain the capital required for research and operations and to continue as a going concern; 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 press release 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.

For further information, please contact:

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