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 June 2016

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 June 21, 2016, 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 June 21, 2016

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: June 21, 2016

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

EXHIBIT 99.1

Aptose Biosciences Provides Corporate Update in Advance of Annual Meeting of Shareholders

SAN DIEGO and TORONTO, June 21, 2016 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. (NASDAQ:APTO) (TSX:APS) ("Aptose" or the "Company") today provided a corporate update in advance of the Company's Annual General Meeting of shareholders to be held today at 10:00 AM ET in Toronto, Ontario, Canada.

Aptose previously announced on November 20, 2015 that an earlier formulation of APTO-253 drug product caused filter clogging during a Phase Ib clinical trial. Aptose voluntarily suspended dosing of patients and contacted the FDA, after which APTO-253 was placed on clinical hold for the filter clogging event. Subsequent activities sought to develop a new formulation in which APTO-253 would be soluble and stable, and to evaluate the formulation in mock infusion studies as part of a submission to the FDA.

In studies performed to date, Aptose has shown positive results with a new prototype formulation for APTO-253. The prototype formulation utilizes the same excipients that were used in the earlier drug formulation, except the methodology and order of addition of excipients were modified to create potentially a more soluble and stable formulation of APTO-253. In these exploratory studies, the prototype formulation was evaluated during mock infusion procedures at multiple dose levels, and no filter clogging was observed. Upon completion of formal studies, Aptose plans to collect and analyze all data and submit this analysis to the FDA for evaluation.

On June 8, 2016 Aptose and CrystalGenomics, Inc. announced an exclusive global option and license agreement focused on the development of CG026806 (CG'806), a first-in-class, highly potent, non-covalent small molecule inhibitor of the Bruton's tyrosine kinase (BTK), FMS-like tyrosine kinase 3 (FLT3) and the Aurora kinases (AURK). Further to the execution of the agreement, Aptose expects to undertake Investigational New Drug (IND) enabling studies in the near future, and, if it exercises its option under the agreement, to initiate a Phase 1 clinical trial by mid-2017. The combination of CG'806's potency and *in vivo* safety profile suggest that CG-806 may serve as an important therapeutic option for patients with AML, CLL and other malignancies.

In addition to APTO-253 and CG'806, in November, 2015 Aptose announced collaborations with Moffitt Cancer Center, and the medicinal chemistry organization, Laxai Avanti Life Sciences (LALS), to create and develop dual mechanism cancer agents to simultaneously target the epigenetic bromodomain 4 (BRD4) motif of BET proteins and the kinase active site of certain oncogenic enzymes. The program exists in the discovery / preclinical stage and is expected to deliver one or more new agents to the Aptose pipeline in the future.

"This past year has been a time of repair and growth for our drug product pipeline. Clearly, we faced the need to solve manufacturing issues related to APTO-253 and deliver a new formulation that can yield reliable clinical material to support the ongoing clinical trial in patients with AML. In addition, we halted the majority of legacy programs, while adding the CG'806 and the BRD4-kinase inhibitor programs to our pipeline. These actions were taken with the aim of creating shareholder value and developing highly differentiated drugs that can improve the lives of cancer patients. We are proud of our progress, and we look forward to advancing these programs in the coming years," commented William G. Rice, Ph.D., Chairman, President and CEO of Aptose Biosciences, Inc.

About Aptose

Aptose Biosciences is a clinical-stage biotechnology company committed to discovering and 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 research coupled with companion diagnostics to identify the optimal patient population for our products. 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. Aptose Biosciences Inc. is listed on NASDAQ under the symbol APTO and on the TSX under the symbol APS.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of Canadian and U.S. securities laws. Such statements include, but are not limited to, statements relating to the solubility and stability of the new formulation of APTO-253, the exercise of the option under the agreement with CrystalGenomics, Inc., the potential of CG'806 as a therapeutic option, the delivery of more agents to the Aptose pipeline in the future and the development of highly differentiated drugs that can improve the lives of cancer patients as well as 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; 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; uncertainty in the length of the clinical hold and the conditions the FDA may impose to lift it; inability of new manufacturers to produce acceptable batches of cGMP clinical supplies 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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