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 24, 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 24, 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 24, 2017

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

Aptose To Release First Quarter Ended March 31, 2017 Financial Results and Hold Conference Call on May 11, 2017

Provides Preliminary First Quarter 2017 Financial Information

SAN DIEGO and TORONTO, April 24, 2017 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. (Aptose) (NASDAQ:APTO) (TSX:APS), a clinical-stage company developing highly differentiated therapeutics that target the underlying mechanisms of cancer, will release its financial results for the quarter ended March 31, 2017, on Thursday May 11, 2017 after the close of the market. The company intends to host a conference call the same day at 5:00 p.m. ET to discuss the financial results.

Participants can access the conference call by dialing (844) 882-7834 (North American toll free number) and (574) 990-9707 (International) and using passcode 13003413. The conference call can also be accessed at http://edge.media-server.com/m/p/bfhzuofp and will also be available through a link on the Investor Relations section of Aptose's website at ir.aptose.com. Please log onto the webcast at least 10 minutes prior to the start of the call to ensure time for any software downloads that may be required. An archived version of the webcast along with a transcript will be available on the company's website for 30 days. An audio replay of the webcast will be available approximately two hours after the conclusion of the call for 7 days by dialing (855) 859-2056, using the passcode 13003413.

Based on information currently available to its management, Aptose expects its total cash and cash equivalents and investments as of March 31, 2017 to be at approximately CA\$12.0 million (or \$9.0 million US dollars) compared to \$10.7 million (or \$7.9 million US Dollars) as of December 31, 2016. The expected increase in total cash and cash equivalents and investments is mostly due to the use of the at-the-market equity facility with Cowen and Company, LLC as well as cost reduction measures implemented during the quarter.

Figures reported above with respect to the first quarter of 2017 are preliminary, based on management's estimates, and have not yet been approved by Aptose's Audit Committee or Board of Directors, or reviewed by Aptose's auditor. Accordingly, while Aptose does not expect significant adjustments to total cash and cash equivalents and investments, investors are cautioned that final results may differ from these preliminary results and not to place undue reliance on the foregoing guidance.

The press release, the financial statements and the management's discussion and analysis for the quarter ended March 31, 2017 will be available on SEDAR at www.sedar.com and EDGAR at www.sec.gov/edgar.shtml

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 anticancer therapies and regimens without overlapping toxicities. For further information, please visit www.aptose.com.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of Canadian and U.S. securities laws, including, but not limited to, statements relating to the expected cash level of Aptose 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 press release.

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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