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 May 2018

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 [] Form 40-F [X]

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 May 31, 2018, 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 May 31, 2018

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: May 31, 2018

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

APTOSE Enters into US\$20 Million Common Share Purchase Agreement with Aspire Capital Fund, LLC

SAN DIEGO and TORONTO, May 31, 2018 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ:APTO) (TSX:APS), a clinical-stage company developing highly differentiated therapeutics that target the underlying mechanisms of cancer, today announced that it has entered into a Common Share Purchase Agreement (the "Agreement") of up to US\$20 Million with Aspire Capital Fund, LLC ("Aspire Capital").

Under the terms of the Agreement, Aspire Capital has committed to purchase up to US\$20 million of common shares of Aptose, at Aptose's request from time to time until April 7, 2020 under the following terms:

- Aptose will control the timing and amount of the sale of common shares of Aptose to Aspire Capital.
- On any business day, Aptose shall have the right to direct Aspire Capital to purchase up to 200,000 common shares with a value not exceeding US\$500,000. However, upon mutual agreement, Aptose can direct Aspire Capital to purchase up to an additional 2,000,000 common shares.
- The purchase price shall be equal to the lesser of: (i) the lowest sale price of the common shares on the NASDAQ on the purchase date, or (ii) the average of the three lowest closing sale prices of the common shares on the NASDAQ during the 10 business days prior to the purchase date.
- In addition to the regular purchases, Aptose shall also have the right to require Aspire Capital to purchase up to an additional 30% of the trading volume of the common shares for the next business day at a purchase price (the "VWAP Purchase Price") equal to the lesser of:

 (i) the closing sale price of the common shares on the NASDAQ on the purchase date, or (ii) ninety-seven percent (97%) of the next business day's volume weighted average price on the NASDAQ (each such purchase, a "VWAP Purchase").
- Aptose shall have the right, in its sole discretion, to determine a maximum number of common shares and set a minimum market price threshold for each VWAP Purchase and there are no limits on the number of VWAP Purchases that Aptose may require.
- For any business day that the closing sale price of the common shares on the NASDAQ is below US\$0.25, the obligation of Aspire Capital to purchase common shares shall be automatically suspended for that business day only.
- Aspire Capital will not be allowed to acquire more than 9.9% of the issued and outstanding common shares of the Company without prior approval from the Toronto Stock Exchange ("TSX").
- The number of common shares which may be issued under the Purchase Agreement shall be limited to 19.99% of the Company's outstanding common shares as of the date of the Purchase Agreement unless shareholder approval is obtained to issue more than such 19.99%. However, the 19.99% limitation shall not apply if at the time that the 19.99% limitation is reached and at all times thereafter the average purchase price for all shares issued under the Purchase Agreement is equal to or above a minimum price of US\$3.65 (representing the closing price of the common shares on the NASDAQ on May 30, 2018).

There are no warrants, derivatives, or other share classes associated with this Agreement.

No sales of common shares will be made in Canada under the Aspire Agreement and any sale of common shares by Aspire Capital is expected to be made to arm's length parties. There are no limitations on use of proceeds, financial covenants or restrictions on future financings and there are no rights of first refusal, participation rights, penalties or liquidated damages in the Agreement. Aptose maintains the right to terminate the Agreement at any time, at its discretion, without any additional cost or penalty.

As consideration for Aspire Capital's obligation under the Agreement, Aptose will issue 170,261 common shares to Aspire Capital as a commitment fee (the "Commitment Shares").

Aptose intends to file a prospectus supplement (the "Prospectus Supplement") to the Company's short form base shelf prospectus dated March 7, 2018 with the Ontario Securities Commission and with the U.S. Securities and Exchange Commission (the "SEC"), qualifying the offer and sale of common shares to Aspire Capital (including the Commitment Shares), for an aggregate value of US\$20,600,000.

Under the Agreement, no Common Shares will be sold on the TSX or on other trading markets in Canada. The TSX has conditionally approved the issuance of Common Shares pursuant to the Agreement. For the purposes of TSX approval, the Company relied on the exemption set forth in Section 602.1 of the TSX Company Manual, which provides that the TSX will not apply its standards to certain transactions involving eligible interlisted issuers on a recognized exchange, such as NASDAQ, provided that the transaction is being completed in compliance with the requirements of such other recognized exchange.

A copy of the Prospectus Supplement will be available on SEDAR at www.sedar.com and on EDGAR at www.sec.gov or may be obtained upon request to Aptose's Investor Relations Department at the following address: 251 Consumers Road, Suite 1105, Toronto, ON M2J 4R3, c/o Greg Chow.

This press release does not constitute an offer to sell or the solicitation of any offer to purchase any securities, nor will there be any sale of any securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the

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 regarding our intentions or current expectations concerning, among other things, the Agreement and the financing available thereunder 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 and economic 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:

Aptose Biosciences

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