FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Issuer

Pursuant to Rule 13a-16 or 15d-16 of the Securities Exchange Act of 1934

For the Month of January, 2015

Commission File Number 1-32001

Aptose Biosciences Inc.

(Translation of registrant's name into English)

2 Meridian Road, Toronto, Ontario M9W 4Z7

(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): _____

DOCUMENTS FILED AS PART OF THIS FORM 6-K

See the Exhibit Index hereto.

ADDITIONAL INFORMATION

On December 15, 2014, Aptose Biosciences Inc. issued a press release announcing the resignation of Dr. Brian Underdown as a member of the Board of Directors and Audit Committee. As anticipated, Aptose Biosciences Inc. received a notice of deficiency from the NASADQ Stock Market ("NASDAQ") pursuant to Listing Rule 5605 as a result of Dr. Brian Underdown's departure. Aptose Biosciences Inc. is currently addressing the described deficiency and expects to resolve this imminently.

Details of the notification letter and the cure period provided by NASDAQ is attached to this Form 6-K as Exhibit 99.2.

SIGNATURE

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 13, 2015

By: /s/ "Gregory Chow"

Gregory Chow
Senior Vice President and Chief Financial Officer

EXHIBIT INDEX

- 99.1 Press Release dated January 13, 2015 Aptose Biosciences Doses First Patient in Phase 1b Clinical Study of APTO-253 in Relapsed or Refractory Hematological Malignancies
- 99.2 Notice of Non-Compliance from NASDAQ

Aptose Biosciences Doses First Patient in Phase 1b Clinical Study of APTO-253 in Relapsed or Refractory Hematological Malignancies

SAN DIEGO, California and TORONTO, Ontario, Jan. 13, 2015 /CNW/ - Aptose Biosciences Inc. (NASDAQ: APTO, TSX: APS), a clinical-stage company developing new therapeutics and molecular diagnostics that target the underlying mechanisms of cancer, today announced dosing of the first patient in its Phase 1b clinical study of APTO-253 in patients with relapsed or refractory hematologic malignancies. APTO-253 is a first-in-class inducer of the Krüppel-like factor 4 (KLF4) tumor suppressor gene, and the only clinical-stage compound targeted for patients with suppressed KLF4 levels.

"Epigenetic suppression of the KLF4 gene has been reported as a key transforming event in acute myeloid leukemia and high-risk myelodysplastic syndromes, and Aptose is a pioneer in advancing KLF4 induction as a new therapeutic approach for the treatment of these patient populations," commented William G. Rice, Ph.D., Chairman, President and CEO.

About the Study

The Phase 1b, multicenter, open-label, dose-escalation clinical trial of APTO-253 is designed to assess the safety, tolerability, pharmacokinetics and pharmacodynamic responses and efficacy of APTO-253 as a single agent. APTO-253 will be administered twice weekly, over a 28-day cycle. The study is expected to enroll up to 30 patients with relapsed or refractory hematologic malignancies across two separate dose-escalation arms: (a) up to 15 patients with acute myeloid leukemia (AML) and high-risk myelodysplastic syndromes (MDS) patients, and (b) up to 15 patients with lymphomas (Hodgkin and non-Hodgkin lymphoma) and multiple myeloma. The study is designed to then transition to single-agent expansion cohorts in AML and MDS, followed by combination studies. More information can be found at www.clinicaltrials.gov.

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. Aptose's small molecule cancer therapeutics pipeline includes products designed to provide enhanced efficacy with existing anti-cancer therapies and regimens without overlapping toxicities. Aptose Biosciences Inc. is listed on NASDAQ under the symbol APTO and on the TSX under the symbol APS. For further information, please visit www.aptosebiosciences.com.

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 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 expressed or implied forward looking statements 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; 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.

SOURCE Aptose Biosciences Inc.

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For further information:

Aptose Biosciences Greg Chow, CFO 416-798-1200 qchow@aptose.com

BCC Partners

Karen L. Bergman or Susan Pietropaolo 650-575-1509 or 845-638-6290 kbergman@bccpartners.com or spietropaolo@bccpartners.com

CO: Aptose Biosciences Inc.

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Aptose Biosciences Inc. Notice of Non-Compliance from NASDAQ

Due to the resignation of Dr. Brian Underdown, a member of the Board of Directors and Audit Committee of Aptose Biosciences Inc. (the "Company") as previously reported on December 15, 2014 in the Form 6-K filed by the Company with the Securities and Exchange Commission, the Company received, as expected, a notification letter from The NASDAQ Stock Market ("NASDAQ") stating that the Company no longer complies with NASDAQ's audit committee requirements of maintaining committee membership by at least three independent directors as set forth in Listing Rule 5605. The NASDAQ letter was issued in accordance with standard NASDAQ procedures.

Consistent with Listing Rule 5605(c)(4), NASDAQ will provide the Company a cure period in order to regain compliance as follows:

- until the earlier of the Company's next annual shareholders' meeting or December 15, 2015; or
- if the next annual shareholders' meeting is held before June 15, 2015, then the Company must evidence compliance no later than June 15, 2015.

The Company intends to submit a nominee to fill the vacancy at its next meeting of the Board of Directors to regain compliance within the allowed time period specified.

The NASDAQ notification has no immediate impact on the Company's listing on NASDAQ.