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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 /PRNewswire/ - 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.

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