

March 23, 2015



Aptose Biosciences Announces Appointment of Dr. Michael Andreeff to Scientific Advisory Board

SAN DIEGO, CA and TORONTO, March 23, 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 the appointment of Michael Andreeff, M.D., Ph.D., Professor of Medicine, Department of Leukemia, Division of Cancer Medicine, The University of Texas MD Anderson Cancer Center (MDACC), to its Scientific Advisory Board.

"We are privileged to have the opportunity to work with Dr. Andreeff, a world-class researcher in hematopoietic and epithelial malignancies," said William G. Rice, Ph.D., Chairman, President and CEO. "Aptose is committed to building one of the foremost hematology-focused scientific advisory boards in the industry, and we are fortunate to have the interest and guidance of this premier group as we pioneer a new class of drugs for AML and other hematologic indications."

Dr. Andreeff joins Brian Druker, M.D., Director, Oregon Health & Science University (OHSU) Knight Cancer Institute and Daniel D. Von Hoff, M.D., Physician-in-Chief and Distinguished Professor of Translational Research at Translational Genomics Research Institute (Phoenix, AZ), as scientific advisors for Aptose.

Dr. Andreeff received his M.D. and Ph.D. degrees at the University of Heidelberg, Germany, and additional training and faculty appointments at the Memorial Sloan-Kettering Cancer Center (MSKCC) in New York, NY, in the Departments of Pathology and Leukemia.

Dr. Andreeff is professor of medicine and holds the Paul and Mary Haas Chair in Genetics at MDACC. He has received uninterrupted funding from the National Cancer Institute (NCI) for more than 30 years, serves as the principal investigator (PI) of a grant entitled "The Therapy of AML", and participates as a PI in research grants focused on leukemia, lymphoma, ovarian and breast cancer, among others. He has published more than 450 peer-reviewed papers, five books and 75 book chapters.

About APTO-253

APTO-253 represents an entirely new class of anticancer agents, which the Company believes may offer a competitive advantage over conventional drugs. APTO-253 is a small molecule optimized to induce the tumor suppressor Krüppel-like factor 4 (KLF4), leading to apoptotic death in cancer cells that have the KLF4 gene silenced. This drug candidate has shown selective and potent antitumor activity in preclinical investigations of certain human cancers, including solid and liquid tumors, and has demonstrated a robust safety profile and biological antitumor activity in a prior Phase 1 clinical trial in patients with solid tumors. APTO-253 is currently in a Phase 1b, multicenter, open-label, dose-escalation clinical trial in

patients with relapsed or refractory hematologic malignancies.

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 the Company's 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.aptose.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.