

May 31, 2023



Aptose to Hold Interim Clinical Update Webcast on Saturday, June 10, 2023

EHA Abstract on Tuspentinib and Venetoclax Recently Published

SAN DIEGO and TORONTO, May 31, 2023 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company developing highly differentiated oral targeted agents to treat hematologic malignancies, announced today that the company management team will provide a clinical update on Saturday, June 10, 2023, at 12:00 PM EST / 6:00 PM CEST, in conjunction with EHA 2023 International Congress of the European Hematology Association in Frankfurt, Germany. The webcast event will include an interim review of Aptose's lead compound tuspentinib, a myeloid kinase inhibitor, currently being tested as a monotherapy and in combination with venetoclax in the phase 1/2 APTIVATE trial.

[Tuspentinib](#), administered as a once-daily oral tablet, is a precision targeted kinase inhibitor designed to suppress a select handful of kinases known to drive proliferation of acute myeloid leukemia (AML) while maintaining a favorable safety profile. Aptose management will highlight additional insights from the completed Phase 1/2 dose escalation clinical trial of tuspentinib and review early trends from the ongoing APTIVATE trial.

Aptose Clinical Update Webcast Details

Date & Time: Saturday, June 10, 2023, 12:00 PM ET

Participant Webcast Link: [Link](#)

Participant Dial-in:

Toll Free Investors Dial: 1-877-407-9039

Toll/International Investors Dial: 1-201-689-8470

Conference ID: 13739137

The slides will be available on Aptose's website [here](#) and the webcast of the presentation will be archived shortly after the conclusion of the event.

In addition, an abstract on tuspentinib was recently published in EHA's open access library [here](#):

Abstract: PB1766

Title: IN VITRO ACQUIRED RESISTANCE TO THE ORAL MYELOID KINASE INHIBITOR

TUSPETINIB CREATES SYNTHETIC LETHAL VULNERABILITY TO VENETOCLAX

Session Title: Acute myeloid leukemia - Biology & Translational Research

Tuspetinib (TUS) is a once daily, oral agent that potently inhibits JAK1/2, SYK, RSK1/2, wildtype and mutant forms of FLT3, and mutant forms of KIT kinases, thereby simultaneously suppressing multiple oncogenic signaling pathways that mediate resistance to various drugs. TUS as a single agent has generated complete remissions in relapsed/refractory (R/R) acute myeloid leukemia (AML) patients with diverse mutations and demonstrated favorable safety in a Phase 1 trial (NCT03850574). TUS is now in a Phase 1/2 expansion trial (APTIVATE) for R/R AML patients with high unmet need as a monotherapy and as a doublet in combination with venetoclax. The clinical activity against diverse mutational subpopulations led us to investigate alterations in AML cells that may give rise to TUS resistance, and to understand the sensitivity of resistant isolates to venetoclax and other agents used to treat AML.

Resistance to TUS in MOLM-14 cells required prolonged high-level drug exposure, but ultimately yielded a stable phenotype. **Strikingly, acquired TUS resistance generated a synthetic lethal vulnerability in which the cells were unusually hypersensitive to venetoclax. This suggests that concurrent administration of TUS and venetoclax may be advantageous clinically as TUS and venetoclax could act in concert to discourage the emergence of drug resistance during treatment.**

For full published abstract, please visit: <https://library.ehaweb.org/eha/2023/eha2023-congress/386894/himangshu.sonowal.in.vitro.acquired.resistance.to.the.oral.myeloid.kinase.hi>

About Aptose

Aptose Biosciences is a clinical-stage biotechnology company developing precision medicines addressing unmet medical needs in oncology, with an initial focus on hematology. The Company's small molecule cancer therapeutics pipeline includes products designed to provide single agent efficacy and to enhance the efficacy of other anti-cancer therapies and regimens without overlapping toxicities. The Company has two clinical-stage oral kinase inhibitors under development for hematologic malignancies: tuspetinib (HM43239), an oral, myeloid kinase inhibitor being studied as monotherapy and in combination therapy in the APTIVATE international Phase 1/2 expansion trial in patients with relapsed or refractory acute myeloid leukemia (AML); and luxetpinib (CG-806), an oral, dual lymphoid and myeloid kinase inhibitor in Phase 1 a/b stage development for the treatment of patients with relapsed or refractory hematologic malignancies. For more information, please visit www.aptose.com.

Forward Looking Statements

This press release may contain forward-looking statements within the meaning of Canadian and U.S. securities laws, including, but not limited to, statements relating to the therapeutic potential of tuspetinib and its clinical development as well as 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 factors could include, among others: our ability to obtain the capital required for research and operations and to continue as a going concern; 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; 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 Inc.

Susan Pietropaolo
Investor Relations
201-923-2049
spietropaolo@aptose.com

LifeSci Advisors, LLC

Dan Ferry, Managing Director
617-430-7576
Daniel@LifeSciAdvisors.com



Source: Aptose Biosciences, Inc.