March 26, 2024

Aptose Reports Results for the Fourth Quarter and Full Year 2023

- *Tuspetinib to Advance to TUS+VEN+HMA Triplet Therapy Pilot Study in 1L AML*
- *Tuspetinib Continues Broad Activity Across Mutations with Excellent Safety Profile*
- *Luxeptinib G3 Formulation Achieves Desired Levels and Positions for Future Trials*
- *Conference Call and Webcast at 5:00 pm ET Today*

SAN DIEGO and TORONTO, March 26, 2024 (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, today announced financial results for the three months and year ended December 31, 2023, and provided a corporate update.

“The data we have generated from tuspetinib thus far – as a single agent and in combination therapy with venetoclax in relapsed and refractory AML – have demonstrated a distinctly favorable safety profile and broad activity for tuspetinib across mutational subtypes. This profile also extends to FLT3 wildtype AML, which represents the majority of AML patients, and in which few agents have shown such broad activity,” said William G. Rice, Ph.D., Chairman, President and Chief Executive Officer. “These data have propelled us to initiate a clinical study of tuspetinib in a triplet combination with venetoclax and azacitidine in frontline therapy for newly diagnosed AML, including both FLT3 wild type and FLT3 mutated subtypes.”

Key Corporate Highlights

- **Aptose Completes Public Offering –** On January 30, 2024, Aptose closed a public offering of 5,649,122 common shares of the Company and warrants at a combined offering price of US $1.71 per share. This included 736,842 Common Shares and warrants pursuant to a full exercise by the underwriter of its over-allotment option. Total gross proceeds from the public offering were approximately $9.7 million before deducting underwriting costs, placement agent commissions and other offering-related expenses.

- **Private Placement –** On January 31, 2024, Aptose closed a US $4 million private placement of common shares with strategic partner Hanmi Pharmaceutical. Under the terms of the strategic investment, Hanmi purchased each common share at a price of US $1.90, representing an 11% premium over the price of the common shares issued as part of the public offering. The Company also issued Hanmi warrants to purchase common shares at an exercise price of US $1.71 per warrant share. Total gross

proceeds from the private placement were approximately $4 million, excluding underwriting discounts, placement agent commissions and other offering-related expenses.

- **Tuspetinib Advancing to Triplet Therapy Pilot Study –** Tuspetinib (TUS), a once daily oral agent with a unique kinase targeting pattern, is being developed for the treatment of patients with acute myeloid leukemia (AML). More than 170 patients to date received TUS alone or in combination with the BCL-2 inhibitor venetoclax (VEN) during the Phase 1/2 clinical program in the very ill relapsed or refractory (R/R) AML patient population. At the single agent 80 mg recommended Phase 2 dose, TUS achieved a favorable safety profile and a CR/CRh rate of 36% among patients who were naive to VEN. The safety profile of TUS remained favorable when TUS was combined with VEN in R/R AML patients, and responses were achieved in both patients naive to VEN and those who failed prior therapy with VEN. TUS avoids many typical toxicities observed with other agents and achieves broad activity across AML patients with a diversity of adverse genetics. Tuspetinib is now being advanced to a triplet combination therapy of tuspetinib, venetoclax and a hypomethylating agent (TUS/VEN/HMA) for the frontline treatment of newly diagnosed AML patients ineligible for induction chemotherapy.

- **Luxeptinib G3 Evaluation Completed –** During 2023 and early 2024, clinical evaluation of the new generation 3 (G3) formulation of luxeptinib (LUX) was completed. The G3 formulation was tested in a single dose bioavailability study in 20 patients, including both B-cell cancer and AML patients, and across 5 dose levels (10mg to 200mg). The G3 formulation then was evaluated in R/R AML patients with continuous dosing using two different dose levels (50mg BID and 200mg BID) in a total of 11 patients. Data show the G3 formulation dosed at 200mg twice daily can achieve 2-3uM steady state plasma levels, with approximately 10-fold better absorption, and interestingly even better tolerability, than the original G1 formulation. Thus, the G3 formulation achieved the desired plasma exposure benchmark and can serve as the formulation of choice for future studies with LUX. Aptose is exploring alternative development paths and collaborations to advance LUX as a single agent or in combination with VEN to treat defined R/R patient populations of high unmet need.

Multiple Planned Value-creating Milestones Ahead

- TUS/VEN doublet synopsis in R/R AML: EHA 2024
- TUS/VEN/HMA planned initiation of pilot triplet study in 1L AML: Summer 2024
- Triplet pilot dose escalation planned with early CR/MRD/safety data in 1L AML: ASH 2024
- Triplet pilot completed with CR/MRD data and dose selection: EHA 2025
- Triplet initiation of Ph2/Ph3 pivotal program: 2H 2025

FINANCIAL RESULTS OF OPERATIONS

Balance Sheet Data
(unaudited)
($ in thousands)

	December 31, 2023	December 31, 2022
Cash, cash equivalents and short-term investments	$ 9,252	$ 46,959
Working capital	(3,375)	37,235
Total assets	12,989	51,027
Non-current liabilities	621	1,002
Deficit	(515,537)	(464,330)
Total shareholders' equity	(2,901)	37,741

- Cash and cash equivalents, January 31, 2024 (unaudited) was $18.6 million, after gross proceeds from January 2024 financings (unaudited) of $13.7 million.
- Total cash and cash equivalents and investments as of December 31, 2023, were $9.3 million, a decrease of $37.7 million as compared to $47.0 million at December 31, 2022. Based on current operations, the Company expects that cash on hand and available capital provide the Company with sufficient resources to fund planned Company operations including research and development through August of 2024.
- Working capital is a non-GAAP measure and represents cash, cash equivalents, investments, prepaid expenses and other current assets less current liabilities.
- Common shares issued and outstanding as at March 26, 2024 were 15,717,701.

Statements of Operations Data
(unaudited)

	Year ended December 31,	
(in thousands except per Common Share data)	**2023**	**2022**
Revenues	$ -	$ -
R&D, related party	3,492	3,556
Research and development expenses	33,273	24,532
General and administrative expenses	15,591	14,514
Net finance income	1,149	779
Net loss	$ (51,207)	$ (41,823)
Basic and diluted loss per Common Share	$ (7.58)	$ (6.80)
Weighted average number of common shares outstanding used in the calculation of basic loss per share	6,755	6,151

Net loss for the year ended December 31, 2023 increased by $9.4 million to $51.2 million, as compared to $41.8 million for the comparable period in 2022.

Research and Development Expenses

The research and development expenses for years ended December 31, 2023, and 2022 are as follows:

	Twelve months ended December 31,	
(in thousands)	2023	2022
Program costs – Tuspetinib	$ 24,925	$ 10,083
Program costs – Luxeptinib	3,510	8,426
Program costs – APTO-253	40	141
Personnel related expenses	6,878	7,181

Stock-based compensation		1,373		2,218
Depreciation of equipment		39		39
Total	$	36,765	$	28,088

R&D expenses increased by $8.7 million to $36.8 million for the year ended December 31, 2023, as compared with $28.1 million for the comparative period in 2022. Changes to the components of our R&D expenses presented in the table above are primarily related to the following activities:

- Program costs for tuspetinib increased by $14.8 million. The higher program costs for tuspetinib in 2023 represent the enrollment of patients in our APTIVATE clinical trial, our healthy volunteer trial, manufacturing activities to support clinical development, purchase of clinical trial materials, and related expenses.
- Program costs for luxeptinib decreased by approximately $4.9 million, primarily due to lower clinical trial costs and lower manufacturing costs as a result of the current formulation requiring less API than the prior formulation.
- Program costs for APTO-253 decreased by approximately $101 thousand due to the Company's decision on December 20, 2021, to discontinue further development of APTO-253.
- Personnel-related expenses decreased by $0.3 million due to lower headcount in 2023.
- Stock-based compensation decreased by approximately $845 thousand in the year ended December 31, 2023, compared with the year ended December 31, 2022, primarily due to stock options granted with lower grant date fair values in the current period.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries, benefits, and travel, including stock-based compensation for our executive, finance, business development, human resources, and support functions. Other general and administrative expenses and professional fees include auditing, and legal services, investor relations and other consultants, insurance. and facility related expenses.

We expect that our general and administrative expenses will increase for the foreseeable future as we incur additional costs associated with being a publicly traded company and to support our pipeline of activities. We also expect our intellectual property related legal expenses to increase as our intellectual property portfolio expands.

The general and administrative expenses for the years ended December 31, 2023 and 2022 are as follows:

	Year ended December 31,			
(in thousands)		2023		2022
General and administrative, excluding items below:	$	13,262	$	11,444
Stock-based compensation		2,280		2,989
Depreciation of equipment		49		81
Total	$	15,591	$	14,514

General and administrative expenses increased by approximately $1.1 million $15.6 million for the year ended December 31, 2023, as compared with $14.5 million for the comparative period in 2022. The increase was primarily as a result of higher salaries expenses, higher professional fees, and higher travel expenses, partly offset by a decrease in stock-based compensation costs.

Stock-based compensation decreased by $709 thousand mostly as a result of options having a lower grant date fair value as compared with the options granted in the comparative period.

Conference Call & Webcast:

Date:	Tuesday, March 26, 2024
Time:	5:00 PM ET
Audio Webcast Only:	**link**
Q&A Participant Registration Link*:	**link**

(https://register.vevent.com/register/BIe69f08fc83634a6aa38bf7081d82c6a2)

*Analysts interested in participating in the question-and-answer session will pre-register for the event from the participant registration link above to receive the dial-in numbers and a unique PIN, which are required to access the conference call. They also will have the option to take advantage of a Call Me button and the system will automatically dial out to connect to the Q&A session.

The audio webcast also can be accessed through a link on the Investor Relations section of Aptose's website here. A replay of the webcast will be available on the company's website for 30 days.

The press release, the financial statements and the management's discussion and analysis for the year ended December 31, 2023 will be available on SEDAR at www.sedar.com and EDGAR at www.sec.gov/edgar.shtml.

About Aptose

Aptose Biosciences is a clinical-stage biotechnology company committed to 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 luxeptinib (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 contains forward-looking statements within the meaning of Canadian and U.S. securities laws, including, but not limited to, statements regarding the Company's

clinical development plans, the clinical potential, anti-cancer activity, therapeutic potential and applications and safety profile of tuspetinib and luxeptinib, clinical trials, alternative development paths and collaborations to advance luxeptinib, upcoming milestones, expected increase of expenses and statements relating to the Company's plans, objectives, expectations and intentions and other statements including words such as "continue", "expect", "intend", "will", "hope" "should", "would", "may", "potential" 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 current reports, 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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