

May 4, 2021



Aptose Reports Results for the First Quarter 2021

- Conference call and webcast at 4:30 pm EDT today -

- Luxeptinib Phase 1 a/b studies in AML and B cell malignancies continue dose escalation -

- APTO-253 Phase 1 a/b study in AML / MDS advances to sixth (210 mg/m²) dose cohort -

- Dr. Jotin Marango appointed Chief Financial Officer -

SAN DIEGO and TORONTO, May 04, 2021 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage company developing highly differentiated agents that target the underlying mechanisms of cancer, today announced financial results for the three months ended March 31, 2021 and provided a corporate update.

The net loss for the quarter ended March 31, 2021 was \$16.2 million (\$0.18 per share) compared with \$11.5 million (\$0.15 per share) for the quarter ended March 31, 2020. Total cash and cash equivalents and investments as of March 31, 2021 were \$112.1 million. Based on current operations, Aptose expects that cash on hand and available capital provide the Company with sufficient resources to fund all planned Company operations including research and development into the first half of 2023.

"In our ongoing Phase 1 a/b clinical trials with luxepitnib (formerly CG-806), we are encouraged by indicators of target engagement and anti-cancer activity, as well as a safety and tolerability profile that has allowed us to continue dose escalations," said William G. Rice, Ph.D., Chairman, President and Chief Executive Officer. "These hematologic malignancy patients represent highly challenging relapsed and refractory populations – the best currently available therapeutics have already failed these patients – and we are eager to see the effects of increasing luxepitnib drug exposures over a longer period of time. We look forward to providing an update for each of our clinical trials at the 2021 EHA Virtual Congress on June 10-13th."

Separately, Aptose today announced that Jotin Marango, M.D., Ph.D., has been appointed Chief Financial Officer, in addition to his Chief Business Officer role at Aptose. Dr. Marango brings more than a decade of finance, strategy and operations experience to the position, including several positions as biotechnology research analyst. "Dr. Marango is a highly accomplished biotech executive with financial acumen and a deep knowledge of capital markets and banking practices to oversee an established internal finance and accounting team, as well as an understanding of the scientific and medical underpinnings of cancer drugs," said Dr. Rice. "He brings Wall Street insight and the financial and strategic leadership necessary for this position at a time of significant opportunity and growth for Aptose."

Key Corporate Highlights

- Luxepitinib Phase 1 a/b Clinical Study in AML**— Luxepitinib is currently being evaluated in a Phase 1 a/b dose escalation clinical study in patients with relapsed/refractory (R/R) acute myeloid leukemia (AML). Aptose recently reported anti-leukemic activity at the first dose level of 450 mg BID, and patients are now being treated at the second dose level of 600 mg BID. Updated data will be presented at EHA in June. More information is available at www.clinicaltrials.gov (NCT04477291).
- Luxepitinib Phase 1 a/b Clinical Study in B-cell Malignancies**— In parallel with the trial in AML patients, luxepitinib is being evaluated in a Phase 1 a/b dose escalation clinical study in patients with relapsed or refractory B-cell malignancies, including chronic lymphocytic leukemia (CLL) and non-Hodgkin's lymphomas (NHL). Aptose is currently treating patients at the fifth dose level of 750 mg BID and enrolling additional patients at lower dose levels. Thus far, Aptose has observed on-target activity, including inhibition of multiple oncogenic driver kinases, treatment-related lymphocytosis, and tumor reductions. Updated data will be presented at EHA in June. More information is available at www.clinicaltrials.gov (NCT03893682).
- APTO-253 Phase 1 a/b Clinical Study in AML and MDS**— As a direct inhibitor of MYC transcription, APTO-253 represents a novel approach for targeting MYC, an oncogene estimated to contribute to the majority of all human cancers, including hematologic malignancies. Aptose has completed the fifth cohort at the 150 mg/ m2 dose level of APTO-253, and has begun enrolling patients in the sixth dose cohort at 210 mg/m2. More information is available at www.clinicaltrials.gov (NCT02267863).
- Aptose Continues to Expand the Leadership Team With Appointment of VP of Biometrics** – Aptose announced the appointment of Dr. Yuying Jin to Vice President of Biometrics. Dr. Jin brings to Aptose broad experience in statistics, programming and data management, and is specialized in the development and execution of study design, hypothesis testing and statistical analyses for all phases of clinical trials, with a focus on oncology targeted therapy. Prior to joining Aptose in 2019, she served as a Program Head in Biostatistics at Intercept Pharmaceuticals and spent seven years working as a team lead and lead statistical reviewer at the US Food and Drug Administration (FDA), following a research position at the Fred Hutchinson Cancer Research Center. Dr. Jin holds a Ph.D. in biostatistics and an M.S. degree in statistics.

RESULTS OF OPERATIONS

A summary of the results of operations for the three-month periods ended March 31, 2021 and 2020 is presented below:

	Three months ended March 31,	
	2021	2020
(in thousands)		
Revenues	\$ —	\$ —
Research and development expenses	8,228	5,934
General and administrative expenses	8,024	5,900
Total other income	25	308
Net loss	(16,227)	(11,526)
Other comprehensive gain/(loss)	-	-

Total comprehensive loss	(16,227)	(11,526)
Basic and diluted loss per common share	\$ (0.18)	\$ (0.15)

The net loss for the three-month period ended March 31, 2021 increased by \$4.7 million to \$16.2 million as compared with \$11.5 million for the comparable period in 2020. Components of the net loss are presented below:

Research and Development

The research and development expenses for the three-month periods ended March 31, 2021 and 2020 were as follows:

(in thousands)	Three months ended March 31,	
	2021	2020
Program costs – luxetpinib	\$ 3,971	\$ 2,945
Program costs – APTO-253	1,090	879
Personnel expenses	1,788	1,303
Stock-based compensation	1,378	800
Depreciation of equipment	1	7
	<u>8,228</u>	<u>5,934</u>

Research and development expenses increased by \$2.3 million to \$8.2 million for the three-month period ended March 31, 2021 as compared with \$5.9 million for the comparative period in 2020. Changes to the components of our research and development expenses presented in the table above are primarily as a result of the following events:

- Program costs for luxetpinib increased by approximately \$1 million, mostly as a result of the luxetpinib Phase 1 a/b AML trial, for which we received an IND allowance in June 2020, including higher manufacturing costs, costs to scale up manufacturing and research associated with formulation development, as well as higher clinical site costs.
- Program costs for APTO-253 increased by approximately \$211 thousand, mostly as a result of higher manufacturing and clinical trial costs related to the APTO-253 Phase 1b trial.
- Personnel-related expenses increased by \$485 thousand, mostly related to new positions hired to support our clinical trials and manufacturing activities.
- Stock-based compensation increased by approximately \$578 thousand in the three months ended March 31, 2021, compared with the three months ended March 31, 2020, mostly related to higher compensation expense in the current period on options issued in the first quarter of 2021.

General and Administrative

The general and administrative expenses for the three-month periods ending March 31, 2021 and 2020 were as follows:

(in thousands)	Three months ended March 31,	
	2021	2020
General and administrative, excluding items below	\$ 2,725	\$ 2,265

Stock-based compensation
Depreciation of equipment

5,265	3,601
34	34
<u>\$ 8,024</u>	<u>\$ 5,900</u>

General and administrative expenses for the three-month period ended March 31, 2021 were \$8.0 million as compared with \$5.9 million for the comparative period in 2020, an increase of approximately \$2.1 million. The increase was primarily as a result of the following:

- General and administrative expenses, other than share-based compensation and depreciation of equipment, increased by approximately \$460 thousand in the three months ended March 31, 2021, primarily as a result of higher personnel related costs, higher insurance costs and higher office administrative costs offset by lower consulting fees and lower travel expenses.
- Stock-based compensation increased by approximately \$1.7 million in the three months ended March 31, 2021, compared with the three months ended March 30, 2020, mostly related to the modification of option agreements of one officer as part of a separation and release agreement. Vested options of 1,679,169 with exercise prices ranging from \$1.03 to \$7.44 were allowed to continue to be exercisable for an additional twelve-month period, and also 504,833 options that would have expired unvested, were allowed to continue to vest for a 12 month period. As there was no service requirement, the company recorded \$945 thousand and \$663 thousand additional compensation in the current period related to these modifications for the vested and unvested options, respectively.

Conference Call and Webcast

Aptose will host a conference call to discuss results for the quarter ended March 31, 2021 today, Tuesday, May 4, 2021 at **4:30 PM ET**. Participants can access the conference call by dialing 1-844-882-7834 (North American toll-free number) and 1-574-990-9707 (international/toll number) and using conference ID # 2788133. The conference call can be accessed [here](#) and will also be available through a link on the Investor Relations section of Aptose's website at <https://ir.aptose.com/>. An archived version of the webcast along with a transcript will be available on the Company's website for 30 days. An audio replay of the webcast will be available approximately two hours after the conclusion of the call for seven days by dialing 1-855-859-2056 (toll free number) and 1-404-537-3406 (international/toll number), using the conference ID # 2788133.

The press release, the financial statements and the management's discussion and analysis for the quarter ended March 31, 2021 will be available on SEDAR at www.sedar.com and EDGAR at www.sec.gov/edgar.shtml.

Note

The information contained in this news release is unaudited.

About Aptose

Aptose Biosciences is a clinical-stage biotechnology company committed to developing personalized therapies 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 investigational products for hematologic malignancies. The first investigational product, luxetpinib, an oral, first-in-class mutation-agnostic FLT3/BTK kinase inhibitor, is in a Phase 1a/b trial in patients with relapsed or refractory B cell malignancies, including chronic lymphocytic leukemia (CLL), small lymphocytic lymphoma (SLL) and non-Hodgkin lymphoma (NHL), who have failed or are intolerant to standard therapies, and in a separate Phase 1a/b trial in patients with relapsed or refractory acute myeloid leukemia (AML). The second investigational product, APTO-253, the only known clinical stage agent that directly targets the MYC oncogene and suppresses its expression, is in a Phase 1a/b clinical trial for the treatment of patients with relapsed or refractory AML or high risk myelodysplastic syndrome (MDS).

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 expected cash runway of the Company, the clinical development plans and dose escalations, the clinical potential, anti-cancer activity, therapeutic potential and applications and safety profile of APTO-253 and luxetpinib, the APTO-253 Phase 1 a/b, the luxetpinib Phase 1 a/b B-cell malignancy and Phase 1 a/b AML clinical trials, upcoming updates regarding the clinical trials, and operations 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; the potential impact of the COVID-19 pandemic 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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