August 4, 2015

Aptose Biosciences Reports Results for the Second Quarter Ended June 30, 2015

SAN DIEGO AND TORONTO, Aug. 4, 2015 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. (NASDAQ:APTO) (TSX:APS) ("Aptose" or the 'Company") a clinical-stage company developing new therapeutics and molecular diagnostics that target the underlying mechanisms of cancer, today reported financial results for the three months ended June 30, 2015 and provided a corporate update. Unless specified otherwise, all amounts are in Canadian dollars.

Effective July 15, 2014 the Company changed its fiscal year end from May 31 to December 31. As a result of this change, the current interim period being reported is for the three months ended June 30, 2015, while the prior year comparative period is for the three months ended May 31, 2014.

Net loss for the three months ended June 30, 2015 was $3.4 million ($0.28 per share) compared with $4.2 million ($0.49 per share) during the three months ended May 31, 2014. Total cash and cash equivalents and investments at June 30, 2015 were $25.2 million.

"During the second quarter we were focused on advancing our Phase 1b clinical trial of APTO-253 for AML and other blood cancers, as we expanded the internal clinical operations capabilities, expanded the scope of preeminent investigators and centers associated with the development of this program, and initiated preclinical collaborations to explore combination treatment strategies with other drug developers. APTO-253 displays a mechanism of action that is well-differentiated and potentially complementary to currently available therapies," said William G. Rice, Ph.D., Chairman, President and Chief Executive Officer. "We are making progress in building a specialized oncology drug development organization dedicated to translating new understandings in transcriptional regulation and epigenetics into advanced medicines such as APTO-253 for patients with hematological malignancies."

Corporate Highlights

- In June, Aptose announced that the U.S. Food and Drug Administration (FDA) granted the company orphan drug designation for APTO-253 for the treatment of acute myeloid leukemia (AML). Orphan drug status provides research and development tax credits, an opportunity to obtain grant funding, exemption from FDA application fees and other benefits. If APTO-253 is approved to treat AML, the orphan drug designation provides Aptose with seven years of marketing exclusivity.

- During the quarter, Aptose continued to recruit clinical sites for the APTO-253 Phase 1b clinical trial. Baylor Cancer Center in Dallas, MD Anderson Cancer Center in Houston, Oregon Health & Sciences University (OHSU) and the University of Michigan are actively screening patients. Two additional clinical sites are undergoing IRB

approvals and are expected to be active in the third quarter of this year.

- Aptose and its collaborators have submitted two abstracts for presentation at the American Society of Hematology ("ASH") Meeting, planned for December 5-8th, 2015 in Orlando, Florida. Aptose's collaborator, Oregon Health and Sciences University ("OHSU"), as part of the Beat AML Initiative, has submitted an abstract evaluating the efficacy of APTO-253 as a single agent and in combination with other agents in primary cells from patients with various hematologic malignancies, including AML, myelodysplastic syndromes (MDS), chronic myelogenous leukemia (CML) and chronic lymphocytic leukemia (CLL). Additionally, Aptose has submitted an abstract on the preclinical pharmacology and clinical pharmacokinetics of APTO-253. Aptose believes that such data provide a rationale for the expectation of potential single agent efficacy against AML in the clinical setting.

Financial Results

Net loss for the three months ended June 30, 2015 was $3.4 million ($0.28 per share) compared with $4.2 million ($0.49 per share) during the three months ended May 31, 2014. Net loss for the six months ended June 30, 2015 was $6.9 million ($0.59 per share) compared with $6.7 million ($0.97 per share) during the six months ended May 31, 2014.

The decrease in net loss during the three months ended June 30, 2015 in comparison to the three months ended May 31, 2014 is due to lower general and administrative costs resulting from lower legal and patent costs, lower Board fees and severance costs incurred in the prior year related to our former President and COO, as well as increased finance income in the current year quarter related to a gain on US dollar cash balances during the period. These decreases were partially offset by higher research and development costs in the current year associated with increased clinical activity on APTO-253 and associated activities.

The increase in net loss during the six months ended June 30, 2015 compared with the six-month period ended May 31, 2014 is due to higher research and development activities associated with the development of APTO-253, as well as higher general and administrative costs related to higher stock based compensation expense, our NASDAQ listing and related expenses and clean-up and moving costs related to the Toronto office and lab relocation. These increases in expenditures were partially offset by increased finance income associated with foreign currency gains on our US dollar cash balances.

Aptose utilized cash of $4.3 million in its operating activities in three-month period ended June 30, 2015 compared with $3.9 million during the three months ended May 31, 2014. For the six months ended June 30, 2015 we utilized cash of $6.5 million compared with $6.1 million in the six months ended May 31, 2014. The cash utilized in the three-month period is higher than the three months ended May 31, 2014 despite a lower net loss due to cash used to reduce accounts payable and accrual balances in the current year period.

At June 30, 2015, the Company had cash and cash equivalents and investments of $25.2 million compared to $30.5 million at December 31, 2014.

Research and Development

Research and development expenses totaled $1.3 million in the three months ended June 30, 2015 compared to $1.0 million during the three months ended May 31, 2014 and totaled $2.2 million for the six- month period ended June 30, 2015 compared with $1.6 million in the six months ended May 31, 2014. Research and development costs consist of the following:

Components of research and development expenses:

	Three months ended		Six months ended	
	June 30, 2015	May 31, 2014	**June 30, 2015**	May 31, 2014
APTO-253 development costs	**$1,257**	$684	**$2,117**	$1,202
Severance costs	**–**	326	**–**	326
Stock-based compensation	**46**	40	**65**	56
Deferred share unit costs	**–**	(42)	**–**	17
Depreciation of equipment	**5**	4	**10**	8
	$1,308	$1,012	**$2,192**	$1,609

Research and development costs in the three months ended June 30, 2015 increased compared with the three months ended May 31, 2014 primarily due to increased APTO-253 development costs including the ongoing Phase 1b clinical trial of APTO-253 in the current year period compared with no ongoing clinical development in the prior year period. In addition we have initiated studies to optimize the formulation of APTO-253 for which no comparable work was ongoing in the prior year period. Increased program expenditures were partially offset by no severance costs in the three months ended June 30, 2015 compared with $326 thousand in the three months ended May 31, 2014 related to severance payments made to our former President and COO. There were no deferred share units outstanding in the three months ended June 30, 2015 compared with a reduction in the fair value of units outstanding in the three months ended May 31, 2014.

The increase in research and development costs during the six months ended June 30, 2015 is the result of increased APTO-253 development costs primarily related to the ongoing Phase 1b clinical trial and associated activities including formulation studies and research support. Increased program expenditures were offset by no severance costs in the six months ended June 30, 2015 compared with $326 thousand in the six months ended May 31, 2014 related to severance payments made to our former President and COO.

Aptose anticipates an increase in research and development costs in the second half of 2015 due to the continuation of our Phase 1b clinical trial.

General and Administrative

General and administrative expenses totaled $2.5 million in the three-month period ended June 30, 2015 compared to $3.2 million in the three months ended May 31, 2014. For the six-month period ended June 30, 2015, general and administrative expenses were $5.2 million compared with $4.9 million in the six months ended May 31, 2014. General and administrative expenses consist of the following:

Components of general and administrative expenses:

	Three months ended		Six months ended	
	June 30, 2015	May 31, 2014	**June 30, 2015**	May 31, 2014
General and administrative excluding salaries	**$1,149**	$1,348	**$2,178**	$1,848
Salaries	**757**	766	**1,510**	1,547
Stock-based compensation	**579**	434	**1,519**	767
Severance costs	**–**	762	**–**	762
Deferred share unit costs	**–**	(122)	**–**	14
Depreciation of equipment	**19**	4	**26**	5
	$2,504	$3,192	**$5,233**	$4,943

General and administrative expenses excluding salaries decreased in the three months ended June 30, 2015 compared with the three months ended May 31, 2014. The decrease over the prior year is attributable to lower legal and patent costs and lower Board fees due to a change in annual payment structure.

General and administrative expenses excluding salaries increased in the six months ended June 30, 2015 compared with the six months ended May 31, 2014. The decreases incurred in the three months ended June 30, 2015 were partially offset by higher expenses in the three months ended March 31, 2015 related to our NASDAQ listing and related expenses and clean-up and moving costs related to the Toronto office and lab relocation.

Salary charges in the three and six months ended June 30, 2015 were consistent with the three- and six- month periods ended May 31, 2014 as staffing levels were consistent year over year.

Severance costs were incurred in the three and six months ended May 31, 2014 as our former President and COO left in March 2014. There are no ongoing costs related to the severance payments.

Stock-based compensation costs increased in both the three and six months ended June 30, 2015 compared with the three month and six months ended May 31, 2014 due to large option grants in April, June and July 2014 which vest 50% during the first year and therefore contribute to higher stock-based compensation expense during the first twelve month period.

Deferred share unit costs relate to the market to market adjustment on units which were settled in April 2014. There were no deferred share units outstanding in the six-month period ending June 30, 2015.

Aptose Biosciences Inc.

Condensed Consolidated Interim Statements of Loss and Comprehensive Loss

(unaudited)

(amounts in 000's of Canadian Dollars except for per common share data)	**Three months ended June 30, 2015**	Three months ended May 31, 2014	**Six months ended June 30, 2015**	Six months ended May 31, 2014
REVENUE	**$ --**	$ --	**$ --**	$ --

EXPENSES				
Research and development	**1,308**	1,012	**2,192**	1,609
General and administrative	**2,504**	3,192	**5,233**	4,943
Operating expenses	**3,812**	4,204	**7,425**	6,552
Finance expense	**15**	78	**35**	176
Finance income	**(462)**	(61)	**(526)**	(74)
Net financing expense (income)	**(447)**	17	**(491)**	102
Net loss and comprehensive loss for the period	**3,365**	4,221	**6,934**	6,654
Basic and diluted loss per common share	**$0.28**	$0.49	**$0.59**	$0.97

Conference Call and Webcast

Aptose will host a conference call to discuss results for the three months ended June 30, 2015 today, Tuesday, August 4, 2015 at 5:00 p.m. EDT. Participants can access the conference call by dialing toll-free 855-546-9557 (North America) or +1 412-455-6106 (international), using the conference call passcode 86443183. The conference call will be available via a live webcast at Aptose 2Q 2015 webcast and will also be available through a link on the Investor Relations section of Aptose's website at at ir.aptose.com. Please log onto the webcast at least 10 minutes prior to the start of the call to ensure time for any software downloads that may be required. An archived version of the webcast will be available on the company's website for 30 days. An audio replay of the webcast will be available after the conclusion of the call for 30 days by dialing toll-free 855-859-2056 (North America) or +1 404-537-3406 (international), using the passcode 86443183.

Note

The information contained in this news release is unaudited.

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. 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. 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.

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Source: Aptose Biosciences Inc.