March 3, 2015

Aptose Biosciences reports results for the quarter and seven months ended December 31, 2014

SAN DIEGO and TORONTO, March 3, 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 reported financial results for the quarter and seventh-month period ended December 31, 2014.

Effective July 17, 2014, the Company changed its fiscal year end from May 31 to December 31. As a result of that change, the periods we are reporting today are for the quarter and the seven months ended December 31, 2014, while the prior comparative periods are for the three months ended November 30, 2013 and the twelve months ended May 31, 2014 and therefore are not directly comparable. Unless specified otherwise, all amounts are in Canadian dollars.

The net loss and comprehensive loss for the seven months ended December 31, 2014 was $7.8 million ($0.67 per share) compared with $10.6 million ($2.02 per share) in the twelve months ended May 31, 2014. Total cash and cash equivalents and investments as of December 31, 2014 totaled $30.5 million.

"During the seven-month period ended December 31, 2014, Aptose executed across all fronts," reported William G. Rice, Ph.D., Chairman, President and Chief Executive Officer of the Company. "With supportive science and strong clinical guidance, we focused on advancing APTO-253, a first-in-class compound for the treatment of acute myeloid leukemia and high-risk myelodysplastic syndrome, into a Phase Ib dose escalation study. The study is now ongoing at prominent clinical sites and we have the capital resources sufficient to fund our research and development operations through at least the next two years under our previously articulated strategic plan."

CORPORATE HIGHLIGHTS

- After a name change from Lorus Therapeutics to Aptose Biosciences in September 2014, Aptose enacted a reverse stock split of its common shares on the basis of one post-consolidation common share for each twelve pre-consolidation common shares. On October 23, 2014, Aptose began trading on the NASDAQ Capital Market under the symbol "APTO". The Company retained its listing on the Toronto Stock Exchange under the symbol "APS".

- In September Aptose also announced its involvement in a collaborative groundbreaking research initiative called "Beat AML" – working with The Leukemia & Lymphoma Society and the Knight Cancer Institute at Oregon Health & Science University. The goal of Beat AML is to accelerate development of new therapies for

acute myeloid leukemia (AML).

- Aptose continued to strengthen its scientific and medical affairs leadership and advisory boards with the appointments of Dr. Stephen Howell, as Chief Medical Officer and Dr. Erich Platzer to the Board of Directors. Dr. Howell, a renowned medical oncologist, is a leader in the development of novel drugs and drug delivery systems for the treatment of cancer and in the discovery of the molecular and genetic mechanisms underlying drug resistance. Dr. Platzer, a board certified physician in internal medicine, hematology and medical oncology, has a rich background in oncology and hematology from the clinical and business perspectives, bringing considerable product development, trial management, licensing and commercialization expertise from his career in the pharmaceutical industry.

- In December 2014, Aptose presented preclinical data from APTO-253 at the 56th American Society of Hematology (ASH) Annual Meeting and Exposition in San Francisco. Aptose researchers reported the first set of *in vivo* murine xenograft study data for APTO-253 in hematologic malignancies, demonstrating antitumor activity as a single agent, and in combination with the hypomethylating agent, azacitadine. Notably, combination therapy led to enhanced antitumor activity. Furthermore, single agent and combination studies exhibited a favorable safety profile with no evidence of bone marrow suppression. Aptose also presented updated *in vitro* data supporting the biomarker strategy for patient identification. The sensitivity of AML cell lines to APTO-253 correlated with higher CDX2/KLF4 (Krüppel-like factor 4) ratios, and separately correlated with the magnitude of KLF4 induction upon treatment with APTO-253.

- Aptose reported that, after working closely with the U.S. Food and Drug Administration (FDA), the company amended the APTO-253 Investigative New Drug (IND) application and expanded the Phase Ib clinical protocol to include two separate arms: one group of up to 15 patients dedicated to patients having AML or high-risk myelodysplastic syndromes (MDS), and a second group of up to 15 patients having lymphomas or multiple myeloma. This decision was reached after consideration of additional scientific publications highlighting the role of silencing KLF4 in certain lymphomas and multiple myeloma patients. Inclusion of the second group in the Phase Ib study required additional time to gain appropriate institutional review approvals and delayed initiation of the trial by approximately two months. However, the decision was judged to be in the best interest of the Company and the development of APTO-253.

- Most recently, in January 2015, Aptose announced that the APTO-253 trial had been initiated with the first patient dosed. MD Anderson Cancer Center in Houston and Baylor Cancer Center in Dallas are currently the two locations participating in the trial.

FINANCIAL RESULTS

THREE MONTHS ENDED DECEMBER 31, 2014 AND
THREE MONTHS ENDED NOVEMBER 30, 2013 (UNAUDITED)

Net loss and comprehensive loss for the three months ended December 31, 2014 increased to $3.6 million compared with $2.8 million in the three months ended November 30, 2013. The increase in net loss is the result of increased research and development activities of $302 thousand and increased general and administrative costs of $650 thousand in the

three months ended December 31, 2014 compared with the three months ended November 30, 2013.

The increased research and development expense in the three months ended December 31, 2014 is primarily the result of the APTO-253 Phase Ib clinical trial which was initiated during the three month period. In the prior year period further clinical development was paused pending the acquisition of additional financing.

General and administrative expenses increased to $2.6 million in the three months ended December 31, 2014 compared with $1.9 million in the three months ended November 30, 2013. The increase is due primarily to our listing on NASDAQ and associated insurance costs as well as an increase in expected costs to terminate the lease of our current Toronto office and laboratory facility recognized in the final quarter of 2014.

Cash used in operating activities in the three months ended December 31, 2014 increased to $2.8 million compared with $1.5 million in the three months ended November 30, 2013 which is primarily due to the increased loss in the three month period ended December 31, 2014.

Aptose Biosciences Inc.
Condensed Consolidated Interim Statements of Loss and Comprehensive Loss
(unaudited)

(amounts in 000's except for per common share data) *(Canadian dollars)*	**Three months ended December 31, 2014**	Three months ended November 30, 2013
REVENUE	**$ -**	$ -
EXPENSES		
Research and development	**1,093**	791
General and administrative	**2,588**	1,938
Operating expenses	**3,681**	2,729
Finance expense	**21**	70
Finance income	**(118)**	(1)
Net financing expense (income)	**(97)**	69
Net loss and total comprehensive loss for the period	**3,584**	2,798
Basic and diluted loss per common share (post consolidation)	**$ 0.31**	$ 0.77
Weighted average number of common shares outstanding used in the calculation of Basic and Diluted loss per common share (post consolidation)	**11,630**	3,644

FULL YEAR RESULTS

Cash, cash equivalents and investments totaled $30.5 million as of December 31, 2014, compared to $30.4 million as of May 31, 2014.

Research and Development (R&D) Expenses

Research and development expenses totaled $2.4 million in the seven months ended December 31, 2014 compared with $3.0 million in the twelve months ended May 31, 2014. Research and development expenses consist of the following:

(in thousands)	7 month ended December 31, **2014**	Year ended May 31, **2014**
Program costs (see below)	**$ 2,371**	$ 2,287
Severance cost for former President and COO	**–**	326
Deferred share unit ("DSU") costs	**–**	90

Stock-based compensation		**29**		296
Depreciation of equipment		**4**		16
	$	**2,404**	$	3,015

Program costs by program:

(in thousands)		December 31, 2014		May 31, 2014
Small molecule program	**$**	**2,371**	$	2,199
Large molecule program		**–**		88
	$	**2,371**	$	2,287

Expenditures for the seven month period ended December 31, 2014 have increased on an annualized basis in comparison to the twelve months ended May 31, 2014. The increase in expenditures in the seven months ended December 31, 2014 relates primarily to the Phase Ib clinical study of APTO-253 in patients with relapsed or refractory hematologic malignancies, which was initiated in late 2014, whereas no clinical development activity was ongoing in the twelve months ended May 31, 2014. In addition to the clinical costs associated with APTO-253, activity related to supporting the advancement of APTO-253 as a drug candidate through research and development activities increased significantly in the seven months ended December 31, 2014 compared with the prior year. These costs include research collaborations, animal studies and drug formulation work.

In the twelve months ended May 31, 2014 the Company incurred one time severance costs associated with the former President and COO of the Company which were paid in full in April 2014. The total severance amount of $1.1 million was allocated between general and administrative ($762 thousand) and research and development ($326 thousand). There are no ongoing obligations related to the severance payment. The allocation was based upon the time spent by the former President and COO of the Company on research and development vs. general and administrative activities.

There were no deferred share units (DSU) outstanding in the seven months ended December 31, 2014. In the twelve months ended May 31, 2014 DSU costs increased due to an increase in the share price of Aptose and the associated fair value of the units. In April 2014, 65,000 (780,000 pre-consolidation) common shares of Aptose were issued in payment of the outstanding DSU liability with a fair value of $444 thousand. There were no outstanding DSUs as of May 31, 2014.

Stock based compensation expenses were lower in the seven months ended December 31, 2014 compared with the twelve months ended May 31, 2014 due primarily to the timing of option grants as well as options granted in the twelve months ended May 31, 2014 which vested immediately resulting in increased expenses for that year.

General and Administrative

General and administrative expenses totaled $5.6 million for the seven months ended December 31, 2014 compared with $7.4 million in the twelve months ended May 31, 2014. General and administrative expenses consisted of the following:

(in thousands)	7 months ended December 31, **2014**	12 months ended May 31, **2014**

General and administrative excluding salaries	$	2,467	$	2,658
Salaries		1,505		2,217
Severance cost of former President and COO		–		762
DSU costs		–		183
Stock-based compensation		1,598		1,530
Depreciation and amortisation		18		5
	$	5,588	$	7,355

General and administrative expenses excluding salaries have increased on an annualized basis in the seven months ended December 31, 2014 compared with the twelve months ended May 31, 2014. The increased costs are the result of the following corporate activities:

- The Company's name change to Aptose Biosciences and related rebranding initiatives;
- Aptose's listing on NASDAQ and the subsequent increase in Directors and Officers insurance costs;
- The change in year end from May 31, to December 31;
- Increased patent filing and maintenance costs;
- Costs associated with additional corporate offices and the estimated increased cost of restoring the current Toronto office location, and
- Increased travel costs.

Salary costs have increased on an annualized basis in the seven months ended December 31, 2014 compared with the twelve months ended May 31, 2014 as the new executives hired in October and November 2013 were employed for the entire operating period of the seven months ended December 31, 2014 rather than a partial year in the prior period. These increased costs were offset by the termination of the former President and COO of the Company in the twelve months ended May 31, 2014 and therefore no further costs in the seven month period ended December 31, 2014.

The severance cost for the former President and COO of the Company was paid in full in April 2014 and the details are described under 'Research and Development' above.

DSU costs increased as described under "Research and Development" above.

Consolidated Statements of Loss and Comprehensive Loss

(amounts in Canadian thousands except for per common share data)	***7 months ended December 31,*** **2014**	***Year ended May 31,*** **2014**
REVENUE	**$ —**	$ —
EXPENSES		
Research and development	**2,404**	3,015
General and administrative	**5,588**	7,355
Operating expenses	**7,992**	10,370
Finance expense	**58**	259
Finance income	**(279)**	(76)
Net finance expense (income)	**(221)**	183
Net loss and total comprehensive loss for the year	**7,771**	10,553
Basic and diluted loss per common share (post consolidation)	**$ 0.67**	$ 2.02
Weighted average number of common shares outstanding (post consolidation) used in the calculation of: Basic and diluted loss per share	**11,605**	5,216

The reported financial results were prepared in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

CONFERENCE CALL AND WEBCAST

Aptose will host a conference call to discuss results for the quarter ended December 31, 2014 and the seven months ended December 31, 2014 on Tuesday, March 3, 2015 at 5:00 p.m. ET. Participants can access the conference call by dialing 1-888-231-8191 (North American toll free number) or 647-427-7450 (local). The conference call will be available via a live webcast at http://www.newswire.ca/en/webcast/detail/1492275/1661947, and will also available through a link on the Investor Relations section of Aptose's website at http://www.aptose.com/events/. 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 approximately two hours after the conclusion of the call for 30 days by dialing 1-855-859-2056, using the passcode 94751979.

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. 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.aptosebiosciences.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 ability to fund or reach developmental milestones and or 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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