UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of August 2018

Commission File Number: **001-32001**

Aptose Biosciences Inc.
(Translation of registrant's name into English)

251 Consumers Road, Suite 1105 Toronto, Ontario M2J 4R3 Canada
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
Form 20-F [ ] Form 40-F [X]

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):__

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):__

On August 7, 2018, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

(c) Exhibit 99.1. Press release dated August 7, 2018

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Aptose Biosciences Inc.
(Registrant)

Date: August 7, 2018

/s/ Gregory K. Chow
Gregory K. Chow
Senior Vice President and Chief Financial Officer

EXHIBIT 99.1

Aptose Reports Results for the Second Quarter Ended June 30, 2018

Conference Call and Webcast at 5pm EDT Today

SAN DIEGO and TORONTO, Aug. 07, 2018 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage company developing highly differentiated therapeutics that target the underlying mechanisms of cancer, today announced financial results for the three months ended June 30, 2018 and reported on corporate developments. Unless specified otherwise, all amounts are in US dollars.

Total cash and cash equivalents and investments as of June 30, 2018 were $18.5 million which, based on current operations, provide the Company with sufficient resources to fund research and development and operations into 2H 2019. Since January 1, 2018, Aptose has raised $15.0 million from the Common Shares Purchase Agreement with Aspire Capital, and $5.2 million from the ATM with Cantor Fitzgerald.

During the quarter, payment of one-time license fees totaling $5.0 million were made to CrystalGenomics, Inc. ("CG") for full execution of the CG-806 license agreement and to capture rights to the China region. Consequently, the net loss for the quarter ended June 30, 2018 was $10.3 million ($0.30 per share) compared with $2.4 million ($0.11 per share) in the quarter ended June 30, 2017, and total cash used in operating activities was $9.3 million compared with $2.6 million in the quarter ended June 30, 2017. Excluding the one-time license fees payments, net loss would have been $5.3 million and $0.16 per share.

"During the second quarter, important advancements were achieved with both of our hematology product candidates, APTO-253 and CG-806. Most notably, our diligence to effectively address the past formulation and manufacturing setbacks with APTO-253 was rewarded with lifting of the clinical hold," said William G. Rice, Ph.D., Chairman, President and Chief Executive Officer. "We now are eager to return to the clinic with this exciting molecule that inhibits expression of the MYC oncogene, which is operative in many hematologic cancers, particularly AML. Separately during the quarter, our CG-806 pan-FLT3/pan-BTK inhibitor was shown to exert potent and broad range killing of malignant cells collected from the bone marrow of patients with hematologic malignancies, and IND-enabling GLP toxicology studies were initiated. Subsequent to the end of the quarter, the in-life portions of the IND-enabling studies were completed. We now are focused on initiating clinical trials and are on track to submit an IND for CG-806 before year-end."

Corporate Highlights

- **FDA lifts clinical hold so MYC Inhibitor APTO-253 can return to Phase 1b trial** – In June, the U.S. Food and Drug Administration (FDA) lifted the clinical hold on APTO-253 following the company's actions to address chemistry, formulation and manufacturing setbacks in the past. APTO-253, Aptose's investigational drug for hematologic cancers, is the only known clinical-stage molecule that has the potential to directly target and inhibit expression of the MYC oncogene shown to be a causative factor in many malignancies, including acute myeloid leukemia (AML).

- **Preclinical data presentations on APTO-253 and CG-806 support clinical development** – In addition to the preclinical data on APTO-253 and CG-806 that were presented at the 2018 American Association for Cancer Research (AACR) Conference held in April and previously discussed, Aptose presented preclinical data demonstrating that CG-806 directly kills a broader range of patient-derived hematologic cancer cells with greater potency than ibrutinib, a BTK inhibitor approved for the treatment of certain hematologic malignancies. The data were presented in a poster at the 23rd Congress of the European Hematology Association (EHA) in June. Aptose also announced the publication of two separate articles in the June 2018 issue of *Molecular Cancer Therapeutics,* a peer-reviewed journal of the American Association for Cancer Research (AACR). These data provide new insights into the mechanism of action of APTO-253 and how this novel agent inhibits expression of the MYC gene, an oncogene that promotes tumor growth and resistance to drugs in AML and other cancers.

- **CG-806 pre-IND progress** – Aptose successfully manufactured GLP-grade CG-806 drug substance and formulated drug product, performed animal dose range finding preclinical studies, initiated IND-enabling GLP animal toxicology and pharmacokinetic studies, and then completed the in-life dosing portion of those toxicology studies subsequent to the end of the quarter. The Company also completed manufacture of a GMP-grade batch of CG-806 planned for use in human clinical trials.

- **CG-806 license now includes all territories outside of Korea** – In May, Aptose exercised its option under the 2016 Option Agreement to exclusively license CG-806 from CrystalGenomics, providing Aptose global rights to develop and commercialize CG-806 for all indications outside of Korea and China – the Licensed Territory. The exercise triggered a payment of $2.0 million to CrystalGenomics, and CrystalGenomics is eligible for regulatory and sales milestone payments, as well as royalties on product sales in the Licensed Territory. In June, Aptose entered into a separate license agreement with CrystalGenomics, Inc., providing Aptose with the China rights to CG-806 (including People's Republic of China, Hong Kong and Macau). Aptose made an upfront payment of $3.0 million and CrystalGenomics is eligible for development, regulatory and commercial-based milestones, as well as single-digit royalties on product sales specifically in China.

- **New share purchase agreement with Aspire Capital** – As previously announced in May, Aptose entered into a Common Share Purchase Agreement of up to $20 Million with Aspire Capital Fund, LLC ("Aspire Capital"). Under the terms of the Agreement, Aspire Capital has committed to purchase up to $20 million of common shares of Aptose, at Aptose's request from time to time until April 7, 2020.

Financial Results

(in thousands)	Three months ended June 30, 2018	Three months ended June 30, 2017	Six months ended June 30, 2018	Six months ended June 30, 2017
Revenues	**$ -**	$ -	**$ -**	$ -
Research and development expenses	**7,818**	1,088	**10,958**	2,823
General and administrative expenses	**2,511**	1,393	**6,213**	2,983
Net finance income	**63**	40	**89**	73
Net loss and comprehensive loss for the period	**($10,266)**	($2,441)	**($17,082)**	($5,733)
Basic and diluted loss per common share	**($0.30)**	($0.11)	**($0.56)**	($0.30)

The increase in the net loss during the three months ended June 30, 2018 compared with the three months ended June 30, 2017 results was primarily driven by the payment of one-time license fees in the amount $5.0 million to CrystalGenomics ("CG") for full execution of the license agreement and to capture worldwide rights (excluding Korea), from higher research and development expenses related to our CG-806 and APTO-253 programs, and from higher professional fees related to regulatory filings in support of financing activities. Excluding the one-time license fees payments, net loss for the three months ended June 30, 2018 would have been $5.3 million and $0.16 per share.

The increase in the net loss during the six months ended June 30, 2018 compared with the six months ended June 30, 2017 results mostly from $5.0 million in license fees paid to CG for worldwide rights (excluding Korea), higher research and development expenses related to our CG-806 and APTO-253 programs higher professional fees related to regulatory filings in support of financing activities and from $2.7 million in non-cash expenses related to stock option compensation. Excluding the one-time license fees payments, net loss for the six months ended June 30, 2018 would have been $12.1 million and $0.39 per share.

Research and Development

Components of research and development expenses

The research and development expenses for the three and six months ended June 30, 2018 and 2017 are as follows:

(in thousands)	Three months ended June 30 2018	Three months ended June 30 2017	Six months ended June 30, 2018	Six months ended June 30, 2017
License fees – CG-806	**$5,000**	$ -	**$5,000**	$ -
Program costs – CG-806	**1,103**	357	**2,457**	764
Program costs – APTO-253	**1,098**	335	**2,019**	1,175
Salaries	**457**	314	**946**	743
Stock-based compensation	**152**	73	**519**	123
Depreciation of equipment	**8**	9	**17**	18
	$7,818	$1,088	**$10,985**	$2,823

The changes in research and development expenses in the three and six months ended June 30, 2018 as compared to the three and six months ended June 30, 2017 result from the following:

- License fees paid to CrystalGenomics of $2.0 million for development and commercial rights of CG-806 in all territories outside of Korea and China, and a further $3.0 million paid for development and commercial rights of CG-806 in China (including People's Republic of China, Hong Kong and Macau). CrystalGenomics is eligible for development, regulatory and commercial-based milestones as well as royalties on future product sales.
- An increase in research and development activities related to our CG-806 development program. In the period ended March 31, 2018, we completed the manufacture of a batch of the drug substance to be used in Dose Range Finding (DRF) toxicity studies and then complete the dose range finding studies in two species. In the three-month period ended June 30, 2018, we manufactured a GLP batch of CG-806 to be used in toxicity studies, completed the manufacture of a GMP batch of the drug substance for future clinical trials, initiated the IND-enabling GLP toxicology and pharmacokinetic studies in two species, and then completed the in-life dosing portion of those IND-enabling studies subsequent to the end of the quarter. In the comparative periods, activities related to our CG-806 program included mostly formulation and PK studies.
- An increase in expenditures on the APTO-253 program. In the period ended March 31, 2018, we completed production of a GMP batch of drug product, and we initiated necessary studies to present to the FDA. In the three-month period ended June 30, 2018, we completed the required studies for the FDA, we initiated the manufacturing of an additional clinical batch of APTO-253 and we increased clinical activities in preparation to return APTO-253 to the clinic. In the comparative periods, we were conducting root cause analysis to determine the cause of a manufacturing issue that had resulted in the program being on clinical hold.
- An increase in salaries expense mostly related to additional clinical research staff hired at the end of the prior fiscal year to prepare for

returning APTO-253 to the clinic.
- An increase in stock option compensation related mostly to stock options granted in the three months ended March 31, 2018, of which 100,000 with a grant date fair value of $2.03 which vested immediately.

General and Administrative
Components of general and administrative expenses

The general and administrative expenses for the three and six months ended June 30, 2018 and 2017 are as follows:

	Three months ended June 30,		Six months ended June 30,	
(in thousands)	**2018**	2017	**2018**	2017
General and administrative excluding salaries	**$1,003**	$560	**$2,296**	$1,268
Salaries	**533**	443	**1,074**	1,301
Shares issued Aspire share purchase agreement	**600**	-	**600**	-
Stock-based compensation	**364**	376	**2,225**	386
Depreciation of equipment	**11**	14	**18**	28
	$2,511	$1,393	**$6,213**	$2,983

General and administrative expenses excluding salaries increased in the three and six months ended June 30, 2018, compared with the three and six months ended June 30, 2017. The increase is mostly the result of higher professional fees related to regulatory filings for the base shelf prospectus and two follow-on supplemental prospectus filings, higher investor relations, higher patent fees associated with our expanded IP portfolio, and higher office administrative costs associated with having additional employees.

In the three-month period ended June 30, 2018, we issued 170,261 shares to Aspire Capital as a commitment fee for entering into a $20 Million share purchase agreement. We recorded $600 thousand in general and administrative expenses related to the issuance of these shares.

Salaries expenses in the three months ended June 30, 2018, increased in comparison with the three months ended June 30, 2017, due mostly to additional headcount to support the increased activities and to salary increases. Salary expenses in the six months ended June 30, 2018, decreased in comparison with the six months ended June 30, 2017, due mostly to separation payments made in the period ended March 31, 2017, offset by higher salaries in the current period.

Stock-based compensation increased in the six months ended June 30, 2018, compared with the six months ended June 30, 2017 mostly related to stock options granted in the three-month period ended March 31, 2018, of which 750,000 with a grant date fair value of $2.03 vested immediately, and also as a result of large forfeitures in the three months ended March 31, 2017.

Conference Call and Webcast

Aptose will host a conference call today, Tuesday, August 7, 2018 at 5:00 p.m. EDT to discuss results for the three and six months ended June 30, 2018. Participants can access the conference call by dialing (844) 882-7834 (North American toll-free number) and (574) 990-9707 (International) and using conference ID #2693419. The conference call webcast can be accessed here and will also be available through a link on the Investor Relations section of Aptose's website at 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 through August 14, 2018 by dialing (855) 859-2056, using the conference ID # 2693419.

The live conference call can also be accessed through a link on the Investor Relations section of Aptose's website 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 along with a transcript will be available on the company's website for 30 days.

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. Aptose is advancing new therapeutics focused on novel cellular targets on the leading edge of cancer. 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, including, but not limited to, statements relating to the expected cash runway of the Company, the clinical potential and favorable properties of CG-806, the clinical trials for CG-806, the clinical potential and development of APTO-253, and 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; 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 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
Greg Chow
Senior Vice President, CFO
647-479-9828
gchow@aptose.com

SMP Communications
Susan Pietropaolo
201-923-2049
susan@smpcommunications.com

LifeSci Advisors
Michael Wood
Managing Director
646-597-6983
mwood@lifesciadvisors.com