ITEM 2 – MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Quarterly Report on Form 10-Q contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended, and is subject to the safe harbor created by those sections. For more information, see "Cautionary Note Regarding Forward-Looking Statements." When reviewing the discussion below, you should keep in mind the substantial risks and uncertainties that impact our business. In particular, we encourage you to review the risks and uncertainties described in "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022. These risks and uncertainties could cause actual results to differ materially from those projected or implied by our forward-looking statements contained in this report. These forward-looking statements are made as of the date of this management's discussion and analysis, and we do not intend, and do not assume any obligation, to update these forward-looking statements, except as required by law.

The following discussion should be read in conjunction with our condensed consolidated financial statements and accompanying notes thereto contained in this Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, and with our audited consolidated financial statements and accompanying notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2022.

All amounts are expressed in United States dollars unless otherwise stated.

OVERVIEW

Aptose Biosciences Inc. ("Aptose," the "Company," "we," "us," or "our") is a science-driven clinical stage biotechnology company committed to the development and commercialization of precision medicines addressing unmet clinical 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's executive offices are located in San Diego, California, and our head office is located in Toronto, Canada.

Aptose Programs

Aptose is advancing oral targeted agents to treat life-threatening hematologic cancers that, in most cases, are not elective for patients and require immediate treatment. We have two clinical-stage investigational products under active development for the treatment of hematologic malignancies: tuspetinib (HM43239), an oral, potent myeloid kinase inhibitor, and luxeptinib (CG-806), an oral, dual lymphoid and myeloid kinase inhibitor.

Tuspetinib is an orally administered, highly potent myeloid kinase inhibitor that selectively targets a constellation of kinases operative in myeloid malignancies and known to be involved in tumor proliferation, resistance to therapy, and differentiation. This small molecule anticancer agent is currently being evaluated in an international Phase 1/2 clinical trial in patients with relapsed or refractory acute myeloid leukemia ("R/R AML") as a single agent therapy and in combination with the venetoclax BCL-2 inhibitor (TUS/VEN doublet combination therapy).

Luxeptinib is an orally administered, highly potent dual lymphoid and myeloid kinase inhibitor that selectively targets defined clusters of kinases that are operative in hematologic malignancies. This small molecule anticancer agent is currently being evaluated in a Phase 1a/b study for the treatment of patients having B-cell malignancies including classic chronic lymphocytic leukemia ("CLL"), small lymphocytic leukemia ("SLL") and certain non-Hodgkins lymphomas ("NHLs") that are resistant/refractory/intolerant to other therapies, and in a Phase 1 a/b study for the treatment of patients with R/R AML and high risk myelodysplastic syndromes ("HR MDS").

PROGRAM UPDATES

Tuspetinib

Indication and Clinical Trials:

Tuspetinib is an oral, highly potent, small molecule inhibitor of kinases operative in myeloid malignancies and known to be involved in tumor proliferation, resistance to therapy and differentiation. Preclinical *in vitro* and *in vivo* studies suggest that tuspetinib may be an effective monotherapy and combination therapy in patients with hematologic malignancies including AML. An international Phase 1/2 clinical trial in patients with R/R AML is ongoing. The dose escalation and exploration portions of this study have been completed and evidence of robust clinical activity has been observed, including multiple complete responses in R/R AML patients with various disease genotypes, and a favorable safety profile.

The U.S. Food and Drug Administration ("FDA") granted orphan drug designation to tuspetinib for the treatment of patients with AML in October 2018. Orphan drug designation is granted by the FDA to encourage companies to develop therapies for the treatment of diseases that affect fewer than 200,000 individuals in the United States. Orphan drug status provides research and development tax credits, an opportunity to obtain grant funding, exemption from FDA application fees and other benefits. The orphan drug designation also provides us with seven additional years of marketing exclusivity in this indication. On May 3, 2022, the FDA granted Fast Track designation to tuspetinib for the treatment of patients with R/R AML with FLT3 mutation. Fast Track is a process designed to facilitate the development and expedite the review of drugs to treat serious conditions and fill an unmet medical need.

Manufacturing*:*

Following the tuspetinib licensing agreement between Aptose and Hanmi on November 4, 2021, Aptose received from Hanmi an existing inventory of drug product expected to support continuation of the current Phase 1/2 study. The Company and Hanmi also entered into a separate supply agreement in 2022 for additional production of API and drug product to support further clinical development. Additional batches of API and drug product have been manufactured during 2022 and 2023, including commercial tablet prototypes.

Program Updates at Recent Scientific Forums:

On October 29, 2023, Aptose presented two posters related to the clinical and preclinical activity of tuspetinib at the European School of Haematology (ESH) 6th International Conference: Acute Myeloid Leukemia "Molecular and Translational": Advances in Biology and Treatment, held October 29-31, 2023, in Estoril, Portugal. Clinical findings included 1) data from the APTO-TUS-HV01 clinical trial (Food Effect Study) evaluating the pharmacokinetic (PK) properties of tuspetinib in healthy human volunteers in which tuspetinib was administered with our without food, and 2) from an international Phase 1/2 study of tuspetinib as a single agent (TUS) and in combination with venetoclax (TUS/VEN combination) in patients with R/R AML from across clinical centers in the United States, South Korea, Spain, Australia and other sites. Data from the Fed vs Fasted Food Effect Study in healthy human volunteers demonstrated tuspetinib can be administered with or without food and foresee no clinically meaningful difference in exposure. This is an important finding for patient convenience, as venetoclax is dosed with food and now we can co-administer tuspetinib simultaneously with the venetoclax rather than require staggered dosing. Findings from the Phase 1/2 clinical trial demonstrated tuspetinib as a single agent (TUS) was well-tolerated and highly active among R/R AML patients with a diversity of adverse genotypes and delivered a 42% CR/CRh cross-evaluable venetoclax (VEN) naive patients at the 80mg daily RP2D. Tuspetinib in combination with venetoclax (TUS/VEN) in the APTIVATE international Phase 1/2 expansion trial in R/R AML patients has been well tolerated and achieved multiple responses in patients who previously failed venetoclax (Prior-VEN failure AML), including Prior-VEN failure patients who also previously failed FLT3 inhibitors, all of whom represent emerging populations of high unmet medical need. Notably, tuspetinib targets venetoclax resistance mechanisms that may re-sensitize Prior-VEN failure patients to venetoclax.

Separate from the clinical studies, the preclinical study (entitled: “Tuspetinib Oral Myeloid Kinase Inhibitor Creates Synthetic Lethal Vulnerability to Venetoclax”) presented by Aptose during the ESH Conference investigated the effects of tuspetinib on key elements of the phosphokinome and apoptotic proteome in both parental and TUS-resistant AML cells. In parental cells, tuspetinib inhibits key oncogenic signaling pathways and shifts the balance of pro- and anti-apoptotic proteins in favor of apoptosis, suggesting that it may generate vulnerability to venetoclax. In addition, acquired resistance in the AML cells to tuspetinib generated a synthetic lethal vulnerability to venetoclax of unusually high magnitude. Concurrent administration of TUS/VEN therefore may discourage the emergence of resistance to tuspetinib during treatment.

In conjunction with poster presentations at the ESH Conference, on October 30, 2023, Aptose held a “Clinical Update and KOL Data Review of AML Drug Tuspetinib” that was webcast and featured Dr. Naval Daver, MD, Professor, Director Leukemia Research Alliance Program, Department of Leukemia, The University of Texas MD Anderson Cancer Center, Houston, Texas. Dr. Daver is the lead investigator on Aptose’s APTIVATE trial and is recognized for significant achievements in the development of novel AML treatments, including several combination therapies. Aptose presented data in 49 patients who received the TUS/VEN doublet, showing an overall response rate (ORR) of 48% among all patients that had achieved an evaluable stage, as well as a 44% ORR among Prior-VEN failure AML patients, including FLT3-unmutated (wildtype) patients (43% ORR) and FLT3-mutated patients (60% ORR), some of whom also had failed prior therapy with FLT3 inhibitors. The TUS/VEN doublet was well tolerated with no unexpected safety signals. The TUS/VEN doublet may serve the Prior-VEN failure R/R AML patients that represent a rapidly growing population that is highly refractory to any salvage therapy. The compelling data with the TUS/VEN doublet in R/R AML patients suggest a TUS/VEN/HMA triplet may also serve the needs of frontline (1L) newly diagnosed AML patients.

Concurrent with the European Hematology Association (EHA) Annual Congress held June 8-11, 2023, Aptose held an interim clinical update webcast on June 10, 2023, to present highlights from the ongoing clinical development of tuspetinib. Aptose reported completion of the tuspetinib dose escalation and dose exploration Phase 1/2 trial in 77 R/R AML patients, tuspetinib demonstrated a favorable safety profile, and tuspetinib delivered monotherapy responses across four dose levels with no dose-limiting toxicity in mutationally diverse and difficult to treat R/R AML populations, including patients with highly adverse mutations that typically do not

respond to monotherapy or combination therapy: TP53-mutated patients with a CR/CRh = 20% and RAS-mutated patients with a CR/CRh = 22%. Aptose also reported completion of a successful End of Phase 1 (EOP1) Meeting with the US FDA for tuspetinib, that a monotherapy recommended phase 2 dose (RP2D) was selected as 80mg daily, and that all development paths remain open, including the single arm accelerated path. Following completion of the dose escalation and dose exploration phases of the Phase 1/2 clinical program, Aptose focused attention on the tuspetinib APTIVATE expansion trial. The APTIVATE trial is designed to identify patient populations sensitive to tuspetinib monotherapy (TUS) that may serve as development paths for single arm accelerated approval and to place tuspetinib in combination with venetoclax (VEN) as a (TUS/VEN) doublet in R/R AML patients and identify patient populations of unmet need that are sensitive to the TUS/VEN doublet and can serve as development paths for accelerated and full approvals. We reported that patient enrollment in the APTIVATE expansion trial has been brisk and preliminary CR activity had already been reported in patients receiving the TUS/VEN doublet who previously failed therapy with venetoclax. During the interim clinical update webcast Aptose also reviewed clinical findings with the new "third generation" ("G3") formulation of luxeptinib (Lux). Aptose disclosed that continuous dosing with 50mg of the G3 formulation achieves roughly an equivalent pharmacokinetic profile as 900mg original (Generation 1, "G1") formulation, and that dose escalation with the G3 formulation was anticipated.

On March 23, 2023, Aptose announced the APTIVATE Phase 1/2 expansion trial with tuspetinib had been initiated and already had treated several R/R AML patients in the monotherapy arm, and that patient enrollment had been initiated in the doublet combination treatment arm of the APTIVATE trial with tuspetinib and venetoclax (TUS/VEN). Since then, patients have continued to enroll and receive tuspetinib on the monotherapy arm. Plus, enrollment and dosing of patients on the doublet arm (TUS/VEN) have been brisk. Clinical investigator interest for tuspetinib is evident, and early signs of antileukemic activity during the APTIVATE trial have fueled the level of excitement for the trial.

Clinical responses to monotherapy with tuspetinib have been observed in a broad range of mutationally defined populations, including those with mutated forms of NPM1, MLL, TP53, DNMT3A, RUNX1, wild-type FLT3, ITD or TKD mutated FLT3, various splicing factors, and other genes. In the March 23, 2023, announcement, Aptose also highlighted an unexpected observation of a 29% CR/CRh response rate with tuspetinib monotherapy in R/R AML patients having mutations in the RAS gene or other genes in the RAS pathway. Responses in RAS-mutated patients are important because the RAS pathway is often mutated in response to therapy by other agents as the AML cells mutate toward resistance to those other agents. Collectively, these observations of broad clinical activity of tuspetinib, along with its favorable safety profile, position tuspetinib for potential accelerated development paths, as well as for doublet, triplet and maintenance therapy indications.

On January 30, 2023, Aptose announced dosing of patients in the APTIVATE Phase 1/2 clinical trial of tuspetinib, and that another clinical response has been achieved by a R/R AML patient receiving 40 mg tuspetinib once daily orally in the original dose exploration trial, the second response at the recently launched low-dose 40 mg cohort. In addition, Aptose elucidated a rationale for the superior safety profile of tuspetinib. While several kinase inhibitors require high exposures that exert near complete suppression of a single target to elicit responses, those agents often cause additional toxicity because they also cause extensive inhibition of that target in normal cells. In contrast, tuspetinib simultaneously suppresses a small suite of kinase-driven pathways critical for leukemogenesis. Consequently, tuspetinib achieves clinical responses at lower exposures with less overall suppression of each pathway, thereby avoiding many of the toxicities observed with competing agents.

In December 2022, clinical data from an international Phase 1/2 study of tuspetinib in patients with R/R AML across clinical centers in the United States and South Korea were presented at the American Society of Hematology (ASH) Annual Meeting and presented during a Corporate Comprehensive Clinical Update Call held December 11, 2022. Data presented demonstrated that tuspetinib delivers single agent responses without prolonged myelosuppression or life-threatening toxicities in these very ill and heavily pretreated R/R AML patients. Responses were observed in a broad range of mutationally-defined populations, including those with mutated forms of NPM1, MLL, TP53, NRAS, KRAS, DNMT3A, RUNX1, wild-type FLT3, ITD or TKD mutated FLT3, various splicing factors, and other genes As of October 6, 2022, 60 heavily pretreated R/R AML patients were enrolled at multiple centers and treated at doses escalating from 20 mg to 200 mg, with further dose exploration at the 40 mg, 80 mg, 120 mg and 160 mg dose levels. Tuspetinib delivered multiple complete responses ("CRs") at 40 mg, 80 mg, 120 mg and 160 mg dose levels in which no dose-limiting toxicities ("DLT") were observed. Tuspetinib demonstrated clinically meaningful benefit in all responders, by either bridging successfully to hematopoietic stem cell transplant (HSCT) or leading to a durable response, as well as a favorable safety profile. In addition to 5 CRc and 1 PR reported at ASH 2021, 4 new CRc and 3 new PR had been generated during 2022. New responses during 2022 were achieved with 160 mg,120 mg, 80 mg, and 40 mg. Among efficacy evaluable patients treated with 80 mg, 120 mg, or 160mg, the following response rates ranging from 19% to 75% were achieved in specific genotypic subpopulations of r/r AML patients. Significant bone marrow leukemic blast reductions were observed broadly in FLT3+ and FLT3 wildtype patients across multiple dose levels, comparable to reported gilteritinib data, but in more heavily pre-treated relapsed and refractory AML patients. Vignettes of patient experiences highlight the potency and breadth of tuspetinib to deliver complete remissions among several mutationally-defined populations with a diversity of adverse mutations. Tuspetinib continued to show a favorable safety profile with only mild AEs and no DLTs up to 160 mg per day, and no drug discontinuations from drug related toxicity. No drug related SAE, drug related deaths, differentiation syndrome, AE of QT prolongation or DLT were observed through the 160 mg level. Tuspetinib avoids many of the typical toxicities observed with

other tyrosine kinase inhibitors. Aptose identified a safe therapeutic range with a broad therapeutic window, spanning the dose levels of 40, 80, 120 and 160 milligrams. Aptose also announced that enrollment had been initiated in the APTIVATE expansion trial for monotherapy and drug combination therapy with tuspetinib. For the APTIVATE expansion trial, Aptose selected 120 mg as the initiating single agent expansion dose and 80 mg as the initiating dose selected for combination with venetoclax.

At the EHA Annual Congress 2022 held June 9-12, 2022, Aptose presented preclinical data from tuspetinib in a poster entitled "Myeloid Kinome Inhibitor HM43239 Overcomes Acquired Resistance in Acute Myeloid Leukemia Models." Oral HM43239 potently inhibits kinases that drive AML, including SYK, diverse forms of the FLT3, JAK1 and JAK2, and mutant forms of the c-KIT kinases. The SYK and JAK1/2 intracellular kinases and the FLT3 (mutated and wildtype) and cKIT (mutated) receptor kinases mediate oncogenic signaling pathways in AML that can drive malignant proliferation and promote drug resistance to certain drugs. Tuspetinib was developed to overcome shortcomings of other drugs, such as simple SYK inhibitors and approved inhibitors of FLT3. These preclinical findings support the continued clinical development of tuspetinib for the treatment of multiple AML populations, particularly those who have failed by other therapies.

Major conclusions include

- Tuspetinib inhibits wild type and mutant forms of FLT3 at low nM concentrations
- Tuspetinib inhibits SYK, JAK1, JAK2 and mutant forms of c-KIT at low nM concentrations
- Tuspetinib inhibits phospho-FLT3, phospho-SYK, phospho-EKR1/2 and phospho-JAK/STAT5 that participate in signaling and rescue pathways
- Tuspetinib has potential to kill cells and tumors resistant to other FLT3 inhibitors
- Tuspetinib, at doses that are well tolerated, demonstrates *in vivo* efficacy on tumors resistant to other FLT3 inhibitors

Luxeptinib

Indication and Clinical Trials:

Luxeptinib is being developed with the intent to deliver the agent as an oral therapeutic for the treatment of R/R AML and for the treatment of a spectrum of B cell malignancies (including but not limited to CLL, SLL and NHL). Luxeptinib is a novel, oral, highly potent lymphoid and myeloid kinase inhibitor that selectively targets defined clusters of kinases operative in myeloid and lymphoid hematologic malignancies. This small molecule anticancer agent is currently being evaluated in a Phase 1a/b study for the treatment of patients having B-cell malignancies including classic CLL, SLL and certain NHLs that are resistant/refractory/intolerant to other therapies. Under a separate Investigational New Drug ("IND"), luxeptinib is being evaluated in a Phase 1a/b study for the treatment of patients with R/R AML or high risk MDS. It is hoped luxeptinib can serve patients across lymphoid and myeloid malignancies and combine well with other agents to extend its application to multiple lines of therapy.

During the fourth quarter of 2022, we completed dosing of the first, second, third, fourth, fifth, and sixth dose levels (150 mg, 300 mg, 450 mg, 600 mg, 750 mg, and 900 mg BID, respectively) of the original G1 formulation in the Phase 1 a/b trial in patients with B-cell leukemias and lymphomas. Among enrolled patients at that time with an array of B-cell malignancies, we had observed inhibition of phospho-BTK and "on-target" lymphocytosis in patients with classic CLL and modest tumor reductions in patients with different tumor types, indicating target engagement and pharmacologic activity of luxeptinib. During the ASH Annual Meeting in December 2022, we announced that a CR was achieved with a diffuse large B-cell lymphoma patient at the 900 mg dose level of the original G1 formulation, demonstrating luxeptinib is active in certain B-cell malignancies.

We also are advancing luxeptinib into myeloid malignancies, with an initial focus on AML and MDS, in a separate Phase 1a/b trial. Our strategy was to identify a starting dose of luxeptinib that we believe could be therapeutically active in critically ill patients with R/R AML. In our Phase 1a/b study in patients with CLL and other B-cell malignancies, 450 mg BID luxeptinib (original G1 formulations) delivered plasma levels that potently inhibited phospho-FLT3 in a plasma inhibitory activity reporter cell assay, suggesting that the 450 mg BID dose may be active in patients with AML. On June 29, 2020, we announced that we had received allowance from the FDA to proceed with a study in R/R AML with a starting dose of 450 mg BID, and subsequently on October 19, 2020, we announced that we had initiated dosing of the first patient with AML. As of the date of this report we have initiated multiple clinical sites for the Phase 1a/b trial, and we have completed all planned dose levels of the G1 formulation (450 mg, 600 mg, 750 mg and 900 mg BID. To date, we have reported blast reductions in patients carrying the FLT3-ITD mutation, and a durable MRD-negative CR in a patient carrying the FLT3-ITD mutation, demonstrating luxeptinib is active in certain AML patients.

As part of the ongoing dose escalation of the current formulation of luxeptinib in patients with B-cell malignancies and AML, Aptose has made significant progress in the development of a G3 formulation that could reduce total API administered, reduce pill

burden, improve absorption, and increase exposure. Aptose began testing this new G3 formulation of luxeptinib as a single dose with 72-hour pharmacokinetics ("PK") analysis in the ongoing studies in patients with hematologic malignancies in the first half of fiscal 2022. On March 22, 2022, we announced that the preliminary PK findings with the G3 formulation were encouraging, and the exploration of the G3 formulation was ongoing.

Exploration of the PK properties of single dose administration of 10mg, 20mg, 50mg, 100mg, and 200mg dose levels with the G3 formulation have been completed. On September 12, 2022 we announced that initial PK modeling studies predict up to an 18-fold improvement in plasma steady-state exposure by the G3 formulation relative to the original formulation, and that Aptose plans to move forward with the development of the G3 formulation in AML patients under continuous dosing conditions to determine if G3 can deliver desired exposures and clinical responses while continuing to demonstrate a favorable safety profile.

On March 23, 2023, Aptose announced that during the fourth quarter of 2022, continuous dosing had been initiated with the new G3 formulation of luxeptinib in the ongoing Phase 1 a/b clinical trial in patients with R/R AML. Initial PK data from continuous dosing of the 50 mg G3 formulation show plasma exposure levels roughly equivalent to the 900mg dose (18-fold greater dose) of the original G1 formulation. Aptose will be reviewing all data with the data monitoring committee and will make the determination to escalate and at what dose.

Concurrent with the EHA Annual Congress held June 8-11, 2023, Aptose held an interim clinical update webcast on June 10, 2023. During the update, Aptose reviewed clinical findings with the new G3 formulation of luxeptinib. Aptose confirmed that continuous dosing with 50mg of the G3 formulation in multiple patients achieves roughly an equivalent pharmacokinetic profile as 900mg original G1 formulation, and that dose escalation with the G3 formulation was anticipated.

Research on luxeptinib continues, and a non-clinical article was published during the first quarter of 2023 in *PLoS One*, a highly respected online scientific publication. Titled, “Luxeptinib interferes with LYN-mediated activation of SYK and modulates BCR signaling in lymphoma,” the article helps elucidate the mechanism by which luxeptinib suppresses the B-cell receptor pathway in a manner distinct from the BTK inhibitor ibrutinib. Luxeptinib was more effective than ibrutinib at reducing both steady state and anti-IgM-induced phosphorylation of the LYN and SYK kinases upstream of BTK where ibrutinib has little or no effect, suggesting luxeptinib can play a role in B-cell malignancies and inflammatory diseases distinct from ibrutinib and other BTK inhibitors.

In a separate line of non-clinical research with luxeptinib, a group from the University of Texas MD Anderson Cancer Center led by Dr. Michael Andreeff published an article in June 2023 in the journal *Haematologica*. The article was entitled “Concomitant targeting of FLT3 and BTK overcomes FLT3 inhibitor resistance in acute myeloid leukemia through the inhibition of autophagy,” and the findings highlight the potential for co-targeting of FLT3/BTK/aurora kinases by luxeptinib to overcome resistance to certain FLT3 targeted therapies in AML, which is urgently needed.

Other corporate matters

On May 23, 2023, our shareholders voted to approve special resolutions providing for an amendment to our articles of incorporation to effect the Reverse Stock Split at a ratio in the range of 1-for-10 to 1-for-20. Our Board of Directors then approved a ratio of 1-for-15 on May 23, 2023. On May 24, 2023, we filed articles of amendment under the CBCA to give effect to the reverse stock split (consolidation) of our Common Shares on the basis of one post-consolidation Common Share for each 15 pre-consolidation Common Shares. The Common Shares commenced trading on a post-Reverse Stock Split basis at market open on Tuesday, June 6, 2023. The Reverse Share Split was primarily intended to bring us into compliance with the minimum bid price requirement for maintaining the listing of the Common Shares on Nasdaq and to make the bid price more attractive to investors. On June 21, 2023, Nasdaq confirmed that we had regained compliance with the minimum bid price requirement. All references in this report to historical Common Share prices, numbers of Common Shares, and earnings per share calculations have been presented to reflect the effect of the Reverse Stock Split.

LIQUIDITY AND CAPITAL RESOURCES

Aptose is an early-stage development company, and we currently do not generate any revenues from our drug candidates. The continuation of our research and development activities and the commercialization of the targeted therapeutic products are dependent upon our ability to successfully finance and complete our research and development programs through a combination of equity financing and payments from strategic partners.

Sources of liquidity:

The following table presents our cash and cash equivalents, investments and working capital as of September 30, 2023 and December 31, 2022.

(in thousands)	Balances at September 30, 2023	Balances at December 31, 2022
Cash and cash equivalents	$ 15,720	$ 36,970
Investments	1,997	9,989
Total	$ 17,717	$ 46,959
Working capital	$ 7,291	$ 37,235

Working capital is a non-GAAP measure and represents primarily cash, cash equivalents, investments, prepaid expenses and other current assets less current liabilities. This financial measure provides a fuller understanding of the Company's capital available to fund future operations.

Management recognizes that in order for us to meet our capital requirements, and continue to operate, additional financing will be necessary. We plan to raise additional funds in order to fund our business operations. We will seek access to financing but there is no assurance that such additional funds will be available for us to finance our operations on acceptable terms, if at all. These conditions raise substantial doubt about the Company's ability to continue as a going concern. The Company's current cash, cash equivalents and investments will enable the support of operations through March 2024. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. Our ability to raise additional funds could be affected by adverse market conditions, the status of our product pipeline, possible delays in enrollment in our trial, and various other factors and we may be unable to raise capital when needed, or on terms favorable to us. If necessary funds are not available, we may have to delay, reduce the scope of, or eliminate some of our development programs, potentially delaying the time to market for any of our product candidates.

Our cash needs for the next twelve months include estimates of the number of patients and rate of enrollment of our clinical trials, the amount of drug product that we will require to support our clinical trials, and our general corporate overhead costs to support our operations, and our reliance on our manufacturers. We have based these estimates on assumptions and plans which may change and which could impact the magnitude and/or timing of operating expenses and our cash runway.

Since our inception, we have financed our operations and technology acquisitions primarily from equity financing, proceeds from the exercise of warrants and stock options, and interest income on funds held for future investment.

All our cash is maintained at high-credit quality institutions. We minimize the cash levels above the insurance levels required by the Federal Deposit Insurance Corporation and the Canada Deposit Insurance Corporation, with excess cash invested in short-term investments with leading financial institutions.

Hanmi Equity Investment

On August 10, 2023, the Company entered into a binding term sheet with Hanmi whereby Hanmi agreed at their sole discretion to invest up to a maximum of $7 million in Aptose up to a total ownership of 19.99 percent of Aptose by Hanmi. On September 6, 2023, the Company entered into a subscription agreement with Hanmi, pursuant to which the Corporation agreed to sell 668,449 Common Shares to Hanmi for proceeds of $3 million. The second investment of up to $4 million or a maximum of 19.99 percent ownership interest in the Company by Hanmi is contingent on Aptose meeting certain manufacturing and data milestones related to tuspetinib by June 30, 2024, which milestones are anticipated to be achieved by year-end. Hanmi held 884,152 Common Shares of Aptose as of November 9, 2023.

2023 Committed Equity Facility

On May 25, 2023, we entered into the 2023 Committed Equity Facility Agreement, which provides that subject to the terms and conditions set forth therein, the Company has the right, but not the obligation, to sell to Keystone, and Keystone is obligated to purchase, up to the Total Commitment during the 24-month term of the 2023 Committed Equity Facility.

Under the 2023 Committed Equity Facility, and subject to its terms and conditions set forth, we may sell to Keystone up to the lesser of (i) $25.0 million of the Common Shares and (ii) a number of Common Shares equal to 19.99% of the Common Shares outstanding immediately prior to the execution of the 2023 Committed Equity Facility (subject to certain exceptions) (the "Total Commitment"), from time to time during the 24-month term of the 2023 Committed Equity Facility. Additionally, on May 25, 2023, we

entered into a Registration Rights Agreement with Keystone, pursuant to which the Company agreed to file a registration statement with the SEC covering the resale of Common Shares that are issued to Keystone under the 2023 Committed Equity Facility. This registration statement became effective on June 30, 2023 and the 2023 Committed Equity Facility commencement date was July 12, 2023 (the "Commencement Date").

Upon entering into the 2023 Committed Equity Facility, the Company agreed to issue to Keystone an aggregate of 25,156 Commitment Shares as consideration for Keystone's commitment to purchase Common Shares upon the Company's direction under the 2023 Committed Equity Facility. The Company issued 7,547 Common Shares, or 30% of the Commitment Shares, on the date of the 2023 Committed Equity Facility and an additional 7,547 First Back-End Commitment Shares, or 30% of the Commitment Shares, were issued to Keystone 90 days following the Commencement date for nil cash proceeds. The remaining 10,062 Second Back-End Commitment Shares, or 40% of the Commitment Shares, shall be issued to Keystone 180 days following the Commencement Date.

In the nine months ended September 30, 2023, the Company's issuance of Common Shares to Keystone comprised 328,438 Common Shares sold to Keystone for cash proceeds and the 7,547 Common Shares issued for nil cash proceeds as the Initial Commitment Shares on the Commencement Date. The Company raised a total of $1,150,000 in cash proceeds from issuing Common Shares to Keystone as of September 30, 2023. In addition, the Company received $50,000 in September for 17,857 Common Shares that were issued subsequent to September 30, 2023.

At-The-Market Facilities

All references in this report to historical Common Share prices, numbers of Common Shares, and earnings per share calculations have been presented to reflect the effect of the Reverse Stock Split.

On December 9, 2022, the Company entered into an equity distribution agreement with respect to the 2022 ATM Facility pursuant to which the Company may, from time to time, sell Common Shares having an aggregate offering value of up to $50 million through Jones Trading on Nasdaq. During the year ended December 31, 2022, the Company issued 4,836 Common Shares under the 2022 ATM Facility at an average price of $10.81 per Common Share for gross proceeds of $52 thousand ($51 thousand net of share issuance costs).

During the nine months ended September 30, 2023, the Company issued 336,690 Common Shares under the 2022 ATM Facility at an average price of $5.62 per Common Share for gross proceeds of $1.9 million ($1.8 million net of share issuance costs). On a cumulative basis to September 30, 2023, the Company has raised a total of $1.9 million gross proceeds ($1.9 million, net of share issue costs) under the 2022 ATM Facility. Costs associated with the proceeds consisted of 3% cash commission.

On May 5, 2020, the Company entered an "at-the-market" equity distribution agreement with Piper Sandler & Co. and Canaccord Genuity acting as co-agents with respect to the 2020 ATM Facility. Under the terms of the 2020 ATM Facility, the Company could, from time to time, sell Common Shares having an aggregate offering value of up to $75 million through Piper Sandler and Canaccord Genuity on Nasdaq. During the nine months ended September 30, 2022, the Company issued 3,646 Common Shares under the 2020 ATM Facility at an average price of $14.25 for gross proceeds of $52 thousand ($50 thousand net of share issue costs). As of October 31, 2022, the date the Agreement was terminated, the Company had raised a total of $89 thousand gross proceeds ($86 thousand net of share issuance costs) under the 2020 ATM Facility. Costs associated with the proceeds consisted of a 3% cash commission.

Our ability to raise additional funds could be affected by adverse market conditions, the status of our product pipeline, possible delays in enrollment in our clinical trials, and various other factors and we may be unable to raise capital when needed, or on terms favorable to us. If the necessary funds are not available, we may need to delay, reduce the scope of, or eliminate some of our development programs, potentially delaying the time to market for any of our product candidates.

Cash flows:

The following table presents a summary of our cash flows for the three-month and nine-month periods ended September 30, 2023 and 2022:

(in thousands)	Three months ended September 30,		Nine months ended September 30,	
	2023	2022	2023	2022
Net cash provided by (used in):				
Operating activities	$ (10,536)	$ (6,979)	$ (35,331)	$ (23,671)
Investing activities	12,953	(5,078)	$ 8,022	12,493
Financing activities	4,902	21	6,056	65
Effect of exchange rates changes on cash and cash equivalents	1	(7)	$ 3	(10)
Net increase/(decrease) in cash and cash equivalents	$ 7,320	$ (12,043)	$ (21,250)	$ (11,123)

Cash used in operating activities:

Our cash used in operating activities for the three-month periods ended September 30, 2023 and 2022 was approximately $10.5 million and $7.0 million, respectively. Our cash used in operating activities for the nine-month periods ended September 30, 2023 and 2022 was approximately $35.3 million and $23.7 million, respectively.

Net cash used in operating activities was higher in the three-month and nine-month periods ended September 30, 2023, as compared to the three-month and nine-month periods ended September 30, 2022, due primarily to higher operating expenses, as discussed further below (see "Results of Operations"). Our uses of cash for operating activities for both periods consisted primarily of salaries and wages for our employees, facility and facility-related costs for our offices and laboratories, fees and pass-through expenses paid in connection with preclinical and clinical studies, drug manufacturing costs, laboratory supplies and materials, and professional fees.

We do not expect to generate positive cash flow from operations for the foreseeable future as we incur additional research and development costs, including costs related to drug discovery, preclinical testing, clinical trials and manufacturing, as well as operating expenses associated with supporting these activities, and potential milestone payments to our collaborators. It is expected that negative cash flows will continue until such time, if ever, that we receive regulatory approval to commercialize any of our products under development and/or royalty or milestone revenue from any such products exceeds expenses.

Cash flow from (used in) investing activities:

Our cash provided by investing activities for the three-month period ended September 30, 2023 was $13.0 million, and consisted of net maturities of investments. Our cash used in investing activities for the three-month period ended September 30, 2022 was $5.1 million, and consisted of net acquisitions of investments. Our cash provided by investing activities for the nine-month period ended September 30, 2023, was $8.0 million, and consisted of net maturities of investments, with purchase of equipment of $29 thousand. Our cash provided by investing activities for the nine-month period ended September 30, 2022 was $12.5 million, with purchases of equipment of $24 thousand.

The composition and mix of cash, cash equivalents and investments is based on our evaluation of conditions in financial markets and our near-term liquidity needs. We have exposure to credit risk, liquidity risk and market risk related to our investments. The Company manages credit risk associated with its cash and cash equivalents and investments by maintaining minimum standards of R1-low or A-low investments. The Company invests only in highly rated financial instruments which are capable of prompt liquidation. The Company manages its liquidity risk by continuously monitoring forecasts and actual cash flows. The Company is subject to interest rate risk on its cash and cash equivalents and investments. The Company does not believe that the results of operations or cash flows would be affected to any significant degree by a sudden change in market interest rates relative to interest rates on the investments, owing to the relative short-term nature of the investments.

Cash flow from financing activities:

Our cash flow from financing activities for the three months ended September 30, 2023, was $4.9 million, consisting of $3 million, $1.2 million and $694 thousand resulting from Common Shares issued from the Hanmi subscription agreement, the 2023 Committed Equity Facility, and the 2022 ATM Facility, respectively, $50 thousand from a stock subscription advance under the 2023 Committed Equity Facility and $13 thousand in cash proceeds from issuance of shares under the Employee Stock Purchase Plan ("ESPP"). Our cash flow from financing activities for the three months ended September 30, 2022, was $21 thousand from Common Shares issued

from the 2020 ATM Facility. Our cash flow from financing activities for the nine months ended September 30, 2023 was $6 million, consisting of $3 million, $1.8 million and $1.2 million resulting from Common Shares issued from the Hanmi subscription agreement, the 2022 ATM Facility and the 2023 Committed Equity Facility, respectively, $50 thousand from a stock subscription advance under the 2023 Committed Equity Facility and $29 thousand in cash proceeds from issuance of shares under the Employee Stock Purchase Plan. Our cash flow from financing activities for the nine months ended September 30, 2022 was $65 thousand, consisting of $50 thousand from Common Shares issued from the 2020 ATM Facility and $15 thousand from the exercise of stock options.

CONTRACTUAL OBLIGATIONS AND COMMITMENTS DESCRIBED UNDER ITEM 7

There were no material changes to our contractual obligations and commitments described under Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, which can be found on EDGAR at www.sec.gov/edgar.shtml and on SEDAR+ at www.sedarplus.ca.

RESULTS OF OPERATIONS

A summary of the results of operations for the three-month and nine-month periods ended September 30, 2023 and 2022 is presented below:

	Three months ended September 30,		Nine months ended September 30,	
(in thousands)	2023	2022	2023	2022
Revenues	$ -	$ -	$ -	$ -
Research and development expenses	8,256	6,578	27,649	21,312
General and administrative expenses	3,425	3,448	12,580	10,887
Other income, net	234	249	977	376
Net loss	$ (11,447)	$ (9,777)	$ (39,252)	$ (31,823)
Other comprehensive income/(loss)	-	20	3	(17)
Comprehensive loss	$ (11,447)	$ (9,757)	$ (39,249)	$ (31,840)
Basic and diluted loss per common share	$ (1.76)	$ (1.59)	$ (6.14)	$ (5.17)

Net loss for the three-month period ended September 30, 2023 increased by $1.7 million to $11.4 million, as compared to $9.8 million for the comparable period in 2022. Net loss for the nine-month period ended September 30, 2023 increased by $7.4 million to $39.3 million, as compared to $31.8 million for the comparable period in 2022. Components of net loss are presented below:

Research and Development

Research and development expenses consist primarily of costs incurred related to the research and development of our product candidates and include:

- External research and development expenses incurred under agreements with third parties, such as contract research organizations, consultants, members of our scientific advisory boards, external labs and contract manufacturing organizations; and
- Employee-related expenses, including salaries, benefits, travel, and stock-based compensation for personnel directly supporting our clinical trials, manufacturing and development activities.

We have ongoing clinical trials for our product candidates tuspetinib and luxeptinib. Tuspetinib was licensed to Aptose in the fourth quarter of 2021, and we assumed sponsorship, and the related costs, of the tuspetinib study effective January 1, 2022. In the fourth quarter of 2021, we discontinued the APTO-253 program.

We expect our research and development expenses to be higher than current period expenses for the foreseeable future as we advance tuspetinib into larger clinical trials.

The research and development expenses for the three-month and nine-month periods ended September 30, 2023, and 2022 were as follows:

	Three months ended September 30,		Nine months ended September 30,	
(in thousands)	2023	2022	2023	2022
Program costs – Tuspetinib	$ 5,814	$ 3,049	$ 18,659	$ 6,570
Program costs – Luxeptinib	648	1,390	2,643	6,624
Program costs – APTO-253	2	66	28	345
Personnel-related expenses	1,523	1,627	5,107	5,821
Stock-based compensation	259	440	1,183	1,923
Depreciation of equipment	10	6	29	29
Total	$ 8,256	$ 6,578	$ 27,649	$ 21,312

Research and development expenses increased by $1.7 million to $8.3 million for the three-month period ended September 30, 2023, as compared to $6.6 million for the comparative period in 2022. 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 tuspetinib were $5.8 million for the three-month period ended September 30, 2023. The higher program costs for tuspetinib in the current period represent the enrollment of patients in our APTIVATE clinical trial, our healthy volunteer trial, manufacturing activities to support clinical development, and related expenses.
- Program costs for luxeptinib decreased by approximately $742 thousand, 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 $64 thousand, due to the Company's decision on December 20, 2021 to discontinue further clinical development of APTO-253.
- Personnel-related expenses decreased by $104 thousand, related to fewer employees in the current three-month period, partially offset by salary increases.
- Stock-based compensation decreased by approximately $181 thousand in the three months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily due to stock options granted with lower grant date fair values, in the current period.

Research and development expenses increased by $6.3 million to $27.6 million for the nine-month period ended September 30, 2023, as compared to $21.3 million for the comparative period in 2022. 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 tuspetinib were $18.7 million for the nine-month period ended September 30, 2023, an increase of $12.1 million compared with $6.6 million in the corresponding period in 2022. The higher program costs for tuspetinib in the current period represent the enrollment of patients in our APTIVATE clinical trial, our healthy volunteer trial, manufacturing activities to support clinical development, and related expenses.
- Program costs for luxeptinib decreased by approximately $4.0 million from $6.6 million in the nine months ended September 30, 2022 to $2.6 million in the current period, 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 $317 thousand, due to the Company's decision on December 20, 2021 to discontinue further clinical development of APTO-253.
- Personnel-related expenses decreased by $714 thousand, related to fewer employees in the current nine-month period and partially offset by salary increases.
- Stock-based compensation decreased by approximately $740 thousand in the nine months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily due to stock options granted with lower grant date fair values, in the current period.

General and Administrative

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 are professional fees for 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 to support the expansion of 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 three-month and nine-month periods ended September 30, 2023, and 2022 were as follows:

(in thousands)	Three months ended September 30,		Nine months ended September 30,	
General and administrative, excluding items below	$ 3,075	$ 2,811	$ 10,479	$ 8,401
Stock-based compensation	340	613	2,060	2,423
Depreciation of equipment	10	24	41	63
	$ 3,425	$ 3,448	$ 12,580	$ 10,887

General and administrative expenses for the three-month period ended September 30, 2023 were $3.4 million, as compared to $3.4 million for the comparative period in 2022, a decrease of approximately $23 thousand. The decrease was primarily due to the following:

- General and administrative expenses, other than stock-based compensation and depreciation of equipment, increased by approximately $264 thousand in the three months ended September 30, 2023, primarily as a result of higher salaries expenses and higher professional fees.
- Stock-based compensation decreased by approximately $273 thousand in the three months ended September 30, 2023, as compared to the three months ended September 30, 2022, due to stock options granted with lower grant date fair values in the current period.

General and administrative expenses for the nine-month period ended September 30, 2023 were $12.6 million, as compared to $10.9 million for the comparative period in 2022, an increase of approximately $1.7 million. The increase was primarily due to the following:

- General and administrative expenses, other than stock-based compensation and depreciation of equipment, increased by approximately $2.1 million in the nine months ended September 30, 2023, primarily as a result of higher salaries expenses and higher professional fees.
- Stock-based compensation decreased by approximately $363 thousand in the nine months ended September 30, 2023, as compared to the nine months ended September 30, 2022, mostly as a result of lower grant date fair values in the current period, partially offset by the 2023 RSU Grant.

CRITICAL ACCOUNTING POLICIES

Critical Accounting Policies and Estimates

We periodically review our financial reporting and disclosure practices and accounting policies to ensure that they provide accurate and transparent information relative to the current economic and business environment. As part of this process, we have reviewed our selection, application and communication of critical accounting policies and financial disclosures. Management has discussed the development and selection of the critical accounting policies with the Audit Committee of the Board of Directors and the Audit Committee has reviewed the disclosure relating to critical accounting policies in this Management's Discussion and Analysis.

Significant Accounting Judgments and Estimates

A "critical accounting policy" is one which is both important to the portrayal of our financial condition and results and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. For additional information, please see the discussion of our significant accounting policies in Note 2 to the Financial Statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on

March 24, 2023. There were no material changes to our critical accounting policies and estimates during the three months ended September 30, 2023.

The Company records expenses for research and development activities based on management's estimates of services received and efforts expended pursuant to contracts with vendors that conduct research and development on the Company's behalf. The financial terms vary from contract to contract and may result in uneven payment flows as compared to services performed or products delivered. As a result, the Company is required to estimate research and development expenses incurred during the period, which impacts the amount of accrued expenses and prepaid balances related to such costs as of each balance sheet date. Management estimates the amount of work completed through discussions with internal personnel and the contract research and contract manufacturing organizations as to the progress or stage of completion of the services. The Company's estimates are based on a number of factors, including the Company's knowledge of the status of each of the research and development project milestones, and contract terms together with related executed change orders. Management makes significant judgments and estimates in determining the accrued balance at the end of each reporting period.

Although management does not expect our estimates to be materially different from amounts actually incurred, if the estimates of the status and timing of services performed differ from the actual status and timing of services performed, it could result in the Company reporting amounts that are too high or too low in any particular period. As of September 30, 2023, the Company has recorded $1.1 million in prepaid expenses and approximately $6.8 million in accrued liabilities related to its research and development activities. If the estimates are too high or too low by a factor of 10% this would mean that prepaid expenses would be over or understated by approximately $110 thousand, and accrued liabilities would be over or understated by approximately $680 thousand. On a combined basis, this could mean an increase or decrease in research and development expenses by approximately $790 thousand. To date, there have been no material differences between the estimates of such expenses and the amounts actually incurred.

Other important accounting policies and estimates made by management are the valuation of contingent liabilities, the valuation of tax accounts, and the assumptions used in determining the valuation of share-based compensation, as described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

Management's assessment of our ability to continue as a going concern involves making a judgment, at a particular point in time, about inherently uncertain future outcomes and events or conditions. Please see the "Liquidity and Capital Resources" section in this Quarterly Report on Form 10-Q for a discussion of the factors considered by management in arriving at its assessment.

Updated share information

As of November 9, 2023, we had 7,816,923 Common Shares issued and outstanding. In addition, there were 1,188,289 Common Shares issuable upon the exercise of outstanding stock options.

ITEM 3 – QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Under SEC rules and regulations, as a smaller reporting company, we are not required to provide this information.

ITEM 4 – CONTROLS AND PROCEDURES

As of the end of our fiscal quarter ended September 30, 2023, evaluation of the effectiveness of our "disclosure controls and procedures" (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the United States Exchange Act of 1934, as amended (the "Exchange Act")), was carried out by our management, with the participation of our principal executive officer and principal financial officer. Based upon that evaluation, our principal executive officer and principal financial officer have concluded that as of the end of our fiscal quarter ended September 30, 2023, our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and (ii) accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

It should be noted that while our principal executive officer and principal financial officer believe that our disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect that our disclosure controls and procedures or internal control over financial reporting will prevent all errors or fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during our fiscal quarter ended September 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

ITEM 1 – LEGAL PROCEEDINGS

We are not involved in any material active legal actions. However, from time to time, we may be subject to various pending or threatened legal actions and proceedings, including those that arise in the ordinary course of our business. Such matters are subject to many uncertainties and to outcomes that are not predictable with assurance and that may not be known for extended periods of time.

ITEM 1A – RISK FACTORS

FOR INFORMATION REGARDING FACTORS THAT COULD AFFECT APTOSE'S RESULTS OF OPERATIONS, FINANCIAL CONDITION AND LIQUIDITY, SEE THE RISK FACTORS DISCUSSED IN OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2022, UNDER ITEM 1A – RISK FACTORS. THERE HAVE BEEN NO MATERIAL CHANGES TO THE RISK FACTORS DISCLOSED UNDER ITEM 1A – RISK FACTORS OF THE ANNUAL REPORT.

ITEM 6 – EXHIBITS

Exhibit Number	Description of Document
10.1	Subscription Agreement, dated September 6, 2023, by and between the Company and Hanmi Pharmaceutical Co., Ltd. (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on September 12, 2023)
10.2	Investor Rights Agreement, dated September 6, 2023, by and between the Company and Hanmi Pharmaceutical Co., Ltd. (incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the SEC on September 12, 2023)
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101**	The following consolidated financial statements from the Aptose Biosciences Inc. Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, formatted in Inline Extensible Business Reporting Language (Inline XBRL): (i) statements of operations and comprehensive loss, (ii) balance sheets, (iii) statements of changes of shareholders' equity, (iv) statements of cash flows, and (v) the notes to the financial statements.
101.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)
*	Filed herewith.
**	In accordance with Rule 406T of Regulation S-T, the XBRL related information in Exhibit 101 to this Quarterly Report on Form 10-Q is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act, is deemed not filed for purposes of Section 18 of the Exchange Act, and otherwise is not subject to liability under these sections.

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 9th day of November, 2023.

APTOSE BIOSCIENCES INC.

By: /s/ William G. Rice, Ph.D.
William G. Rice, Ph.D.
President and Chief Executive Officer