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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 25, 2024

APTOSE BIOSCIENCES INC.

(Exact name of registrant as specified in its charter)

Canada
(State or Other Jurisdiction
of Incorporation)

001-32001
(Commission
File Number)

98-1136802
(I.R.S. Employer
Identification No.)

251 Consumers Road, Suite 1105
Toronto, Ontario M2J 4R3
Canada
(Address of Principal Executive Offices) (Zip Code)

(647) 479-9828
(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- ☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- ☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- ☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- ☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares, no par value	APTO	Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 1.01. Entry into a Material Definitive Agreement.**Underwriting Agreement**

On January 25, 2024, Aptose Biosciences Inc. (“Aptose”) entered into an Underwriting Agreement (the “Underwriting Agreement”) with Newbridge Securities Corporation, as Underwriter, pursuant to which Aptose agreed to issue and sell 4,912,280 common shares and 4,912,280 warrants to acquire common shares (the “Warrants”) at a combined public offering price of \$1.71 per common share and Warrant (the “Offering”). Each Warrant is exercisable to purchase one common share at a price of \$1.71 per share. Each Warrant will be exercisable at any time following the closing of the Offering up to 5 years following such date. Under the terms of the Underwriting Agreement, Aptose granted the Underwriter a 30-day option to purchase up to an additional 736,842 common shares and/or Warrants, which option was exercised by Newbridge in full. Aptose expects to receive approximately \$9.0 million in net proceeds from the Offering (including the option to purchase additional shares), after deducting underwriting discounts and commissions but before deducting estimated offering expenses. Under the terms of the Underwriting Agreement, Aptose also agreed to issue to the Underwriter, for its own account, warrants (the “Underwriter Warrants”) to purchase an aggregate of 395,438 common shares at a price per share equal to \$2.1375, (including warrants issued pursuant to the Underwriter’s option). The Underwriter Warrants will be exercisable at any time and from time to time on or after six months following the date of issuance up to four years and six months following such date.

The common shares, Warrants, common shares issuable upon exercise of the Warrants, Underwriter Warrants and common shares issuable upon exercise thereof, are being offered and sold pursuant to the Company’s effective registration statement on Form S-1 (File No. 333-275870), which was declared effective by the Securities and Exchange Commission (the “SEC”) on January 25, 2024 (including the prospectus included therein), and the Company’s registration statement on Form S-1 filed pursuant to Rule 462(b) under the Securities Act of 1933 (File No. 333-276701) (collectively, the “Registration Statement”). The Offering is expected to close on or about January 30, 2024, subject to satisfaction of customary closing conditions.

Subscription Agreement

On January 25, 2024, Aptose entered into a subscription agreement (the “Subscription Agreement”) with Hanmi Pharmaceutical Co., Ltd., a corporation formed under the laws of the Republic of Korea, pursuant to which Aptose agreed to sell and issue to Hanmi and Hanmi agreed to purchase from Aptose \$4.0 million of Aptose’s common shares and warrants to purchase common shares (the “Hanmi Investment”). The common shares and warrants will be sold in combination, with one common share and 1.11111106 warrant comprising each combined security set purchased by Hanmi. Each whole warrant will be exercisable for one common share at an exercise price of \$1.71 per common share. In connection with the transaction, Hanmi received 2,105,263 common shares and 2,339,181 warrants. The purchase price for each combined set of one common share and 1.11111106 warrants will be \$1.90. Each Warrant will be exercisable until the date that is five years from the date of issuance. Hanmi is a current shareholder of Aptose and holds, as of the date of this current report, approximately 884,152 common shares, which represents approximately 11.1% of our issued and outstanding common shares. Following completion of the Hanmi Investment and the Offering, Hanmi will beneficially hold approximately 19.99% of our issued and outstanding common shares (assuming that the Underwriter’s over-allotment option is not exercised and assuming that the warrants to be acquired by Hanmi are not e). The warrants to be acquired by Hanmi pursuant to the Hanmi Investment may not be exercised if Hanmi’s beneficial ownership of Aptose’s common shares would exceed 19.99%. In connection with the Hanmi Investment, the Company agreed to pay a fee to Newbridge Securities Corporation, which acted as placement agent for the Hanmi Investment, of 7.0% cash commission and 7.0% warrants of the amount of the Hanmi Investment, resulting in Newbridge receiving \$280,000 in cash and 147,368 warrants, each exercisable for one common share at a price of \$2.1375 per share. Each Warrant will be exercisable until the date that is five years from the date of issuance.

In connection with the completion of the Hanmi Investment, Aptose and Hanmi have entered into an agreement (the “Funding Satisfaction Agreement”), dated January 25, 2024, that provides that upon completion of the Hanmi Investment, Hanmi’s obligation to fund the second tranche of its investment pursuant to the subscription agreement entered by Aptose and Hanmi on September 6, 2023, will be deemed to be satisfied.

Investor Rights Agreement

In connection with the Hanmi Investment, Aptose and Hanmi entered into an Amended and Restated Investor's Rights Agreement (the "Investor Rights Agreement"), which amends and restates the Investor's Rights Agreement entered by the parties on September 6, 2023. The Investor Rights Agreement provides, among other things, that so long as Hanmi owns at least 10% of Aptose's issued and outstanding common shares, Hanmi will have the right to designate for employment one or more individuals that are legally able to work in the United States or Canada (each, an "Hanmi Nominee") to a position or positions within Aptose in applicable areas based on each Hanmi Nominee's skills, education and experience. The parties agreed that the Hanmi Nominee shall be subject to Aptose's usual employment rules, practices, policies, evaluation procedures, as amended from time to time and Aptose shall retain the right, in its sole discretion, to terminate such Hanmi Nominee's appointment with Aptose for violations of Aptose's employment rules, practices, policies and procedures. The parties also agreed that the Hanmi Nominee shall be entitled to salary, bonus, vacation, incentive payments and bonuses, expenses, allowances and any applicable benefits in amounts and to the extent consistent with employees of Aptose serving or having recently served in a similar capacity with Aptose with such amounts to be reimbursed to Aptose by Hanmi. In the event that a visa or other permit is required to be obtained to permit the Hanmi Nominee to work in the United States or Canada the parties agreed that Aptose would use its commercially reasonable efforts to assist the Hanmi Nominee with obtaining such visa or permit. The parties agreed that upon the nomination of the Hanmi Nominee that the parties would enter into a separate service agreement to outline the specific terms and conditions of the Hanmi Nominee's appointment.

The Investor Rights Agreement also provides for customary demand and piggyback registration rights to Hanmi. Hanmi is entitled to two (2) demand registrations where Hanmi can require Aptose to register on a registration statement the common shares it receives as part of the Hanmi Investment. Hanmi was also granted piggyback registration rights where if Aptose proposes to file a registration statement, Hanmi, at its own cost and expense can have its common shares included on that registration statement on the same term and conditions as any similar securities of Aptose.

The foregoing descriptions of the Underwriting Agreement, Warrants and Underwriter Warrants is qualified in its entirety by reference to the full text of the Underwriting Agreement, Warrants and Underwriter Warrants which are filed as Exhibits 1.1, 4.3 and 4.4 to this Current Report on Form 8-K and which are each incorporated by reference into the Registration Statement.

The foregoing descriptions of the Hanmi Warrants, the Placement Agent Warrants, the Subscription Agreement, the Investor Rights Agreement and the Funding Satisfaction Agreement are qualified in their entirety by reference to the full text of the Hanmi Warrants, the Placement Agent Warrants, the Subscription Agreement, the Investor Rights Agreement and the Funding Satisfaction Agreement, which are filed as Exhibits 4.1, 4.2, 10.1, 10.2 and 10.3, respectively, to this Current Report on Form 8-K and are each incorporated herein by reference.

Item 1.02 Termination of a Material Definitive Agreement.

The information set forth in Item 1.01 of this Current Report on Form 8-K is incorporated by reference into this Item 1.02.

Item 3.02. Unregistered Sales of Equity Securities.

The information set forth in Item 1.01 of this Current Report on Form 8-K is incorporated by reference into this Item 3.02.

The issuance of the securities to Hanmi in the Hanmi Investment (including, without limitation, the issuance of common shares to Hanmi upon the exercise of warrants being issued to Hanmi in the Hanmi Investment) and the issuance of the Placement Agent Warrants (including, without limitation, the issuance of common shares to Newbridge Securities Corporation upon the exercise thereof) are each intended to be exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), by virtue of the exemption provided by Section 4(a)(2) promulgated under the Securities Act.

Item 9.01. Financial Statements and Exhibits.***(d) Exhibits***

<u>Exhibit</u>	<u>Description</u>
1.1	<u>Underwriting Agreement</u>
4.1	<u>Form of Hanmi Warrant</u>
4.2	<u>Form of Placement Agent Warrant</u>
4.3	<u>Form of Public Offering Warrant</u>
4.4	<u>Form of Underwriter Warrant</u>
10.1*	<u>Subscription Agreement</u>
10.2*	<u>Amended and Restated Investor's Rights Agreement</u>
10.3	<u>Funding Satisfaction Agreement</u>
104	Cover Page Interactive Data File (formatted as inline XBRL)

* Certain portions of this Exhibit have been redacted pursuant to Item 601(b)(10) of Regulation S-K

SIGNATURE

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 hereunto duly authorized.

Aptose Biosciences Inc.

Date: January 29, 2024

By: /s/ William G. Rice, Ph.D.

William G. Rice, Ph.D.

Chairman, President, and Chief Executive Officer

APTOSE BIOSCIENCES INC.
4,912,280 Common Shares
4,912,280 Warrants
UNDERWRITING AGREEMENT

January 25, 2024

Newbridge Securities Corporation
as Representative of the several
Underwriters named in Schedule I hereto
1200 North Federal Highway, Suite 400
Boca Raton, FL 33432

Ladies and Gentlemen:

Aptose Biosciences Inc., a company incorporated under the Canada Business Corporations Act (the “Company”), proposes, subject to the terms and conditions contained herein, to sell to you and the other underwriters (the “Underwriters”) named on Schedule I to this Underwriting Agreement (the “Agreement”), for whom you are acting as Representative (the “Representative”), an aggregate of (i) 4,912,280 shares (the “Firm Shares”) of the Company’s common shares, no par value per share (the “Common Shares”), and (ii) warrants (the “Common Warrants”) to purchase up to 4,912,280 Common Shares, in the form attached hereto as Exhibit A (the “Firm Common Warrants,” and, together with the Firm Shares, the “Firm Securities”). The respective amounts of the Firm Securities to be purchased by each of the several Underwriters are set forth opposite their names on Schedule I hereto.

In addition, the Company proposes to grant to the Underwriters an option to purchase up to an additional 736,842 Common Shares (the “Option Shares” and, together with the Firm Shares, the “Shares”) and/or 736,842 Common Warrants (the “Option Common Warrants,” and collectively with the Option Shares, the “Option Securities”) from the Company for the purpose of covering over-allotments in connection with the sale of the Firm Securities.

The Firm Common Warrants and the Option Common Warrants are collectively called the “Common Warrants.” The Firm Common Warrants and Option Common Warrants are collectively called the “Warrants.” The Common Shares issuable upon exercise of the Warrants are referred to herein as the “Warrant Shares.” The Shares, the Warrants and the Warrant Shares are collectively called the “Securities.”

The Firm Securities in the transaction will be sold as units, with each unit consisting of (i) one Firm Share and (ii) one Firm Common Warrant to purchase one Warrant Share. The Firm Shares and Firm Common Warrants will be issued separately but will be purchased together in this offering.

The Company has prepared and filed in conformity with the requirements of the Securities Act of 1933, as amended (the “Securities Act”), and the published rules and regulations thereunder (the “Rules”) adopted by the Securities and Exchange Commission (the “Commission”), a Registration Statement (as hereinafter defined) on Form S-1 (No. 333-275870), including a preliminary prospectus, and such amendments thereof as may have been required to the date of this Agreement. Copies of such Registration Statement (including all amendments thereof) and of the related Preliminary Prospectus (as hereinafter defined) have heretofore been delivered by the Company or are otherwise available to you. The term “Preliminary Prospectus” means any preliminary prospectus included at any time as a part of the Registration Statement or filed with the Commission by the Company pursuant to Rule 424(a) of the Rules. The term “Registration Statement” as used in this Agreement means the initial registration statement (including all exhibits and financial schedules and all documents and information deemed to be part of the Registration Statement by incorporation by reference or otherwise), as amended at the time and on the date it becomes effective (the “Effective Date”), including the information (if any) contained in the form of final prospectus filed with the Commission pursuant to Rule 424(b) of the Rules and deemed to be part thereof at the time of effectiveness pursuant to Rule 430A of the Rules. If the Company has filed an abbreviated registration statement to register additional Securities pursuant to Rule 462(b) under the Rules (the “462(b) Registration Statement”), then any reference herein to the Registration Statement shall also be deemed to include such 462(b) Registration Statement. The term “Prospectus” as used in this Agreement means the prospectus in the form included in the Registration Statement at the time of effectiveness or, if Rule 430A of the Rules is relied on, the term Prospectus shall also include the final prospectus filed with the Commission pursuant to and within the time limits described in Rule 424(b) of the Rules.

The Company understands that the Underwriters propose to make a public offering of the Securities, as set forth in and pursuant to the Statutory Prospectus (as hereinafter defined) and the Prospectus, as soon after the Effective Date and the date of this Agreement as the Representative deems advisable. The Company hereby confirms that the Underwriters and dealers have been authorized to distribute or cause to be distributed each Preliminary Prospectus, and, if applicable, each Issuer Free Writing Prospectus (as hereinafter defined) and are authorized to distribute the Prospectus (as from time to time amended or supplemented if the Company furnishes amendments or supplements thereto to the Underwriters).

1. Sale, Purchase, Delivery and Payment for the Securities On the basis of the representations, warranties and agreements contained in, and subject to the terms and conditions of, this Agreement:

(a) The Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, the number of Firm Shares and Firm Common Warrants set forth opposite the name of such Underwriter on Schedule I to this Agreement. The combined purchase price for one Firm Share and one Firm Common Warrant shall be \$1.5903 (93% of the price offered to the public) (the “Firm Price”).

(b) The Company hereby grants to the several Underwriters an option (the “Over-Allotment Option”) to purchase, severally and not jointly, (i) up to an additional 736,842 Common Shares (the “Option Shares”) and/or (ii) additional Warrants to purchase up to 736,842 Common Shares (the “Option Warrants,” and together with the Option Shares, the “Option Securities”), for the purpose of covering over-allotments of such securities, if any. The purchase price to be paid per Option Share is \$1.581. The purchase price to be paid per Option Warrant is \$0.0093. The Over-Allotment Option may be elected with respect to, at the Underwriter’s sole discretion, Option Shares and Option Warrants together, solely Option Shares, solely Option Warrants, or any combination thereof. The number of Option Securities to be purchased by each Underwriter shall be the same percentage (adjusted by the Representative to eliminate fractions) of the total number of Option Securities to be purchased by the Underwriters as such Underwriter is purchasing of the Firm Securities. The Over-Allotment Option may be exercised only to cover over-allotments in the sales of the Firm Securities by the Underwriters and may be exercised in whole or in part at anytime on or before 12:00 noon, New York City time, on the business day before the Firm Securities Closing Date (as defined below), and from time to time thereafter within 30 days after the date of this Agreement, in each case upon written, facsimile or electronic notice, or verbal or telephonic notice confirmed by written, facsimile or electronic notice, by the Representative to the Company no later than 12:00 noon, New York City time, on the business day before the Firm Securities Closing Date or at least two business days before the Option Securities Closing Date (as defined below), as the case may be, setting forth the number of Company Option Securities to be purchased and the time and date (if other than the Firm Securities Closing Date) of such purchase.

(c) On the Firm Securities Closing Date, the Company agrees to issue to Newbridge Securities Corporation (for its own account and not as the Representative of the several Underwriters), warrants (the “Underwriter Warrants”) to purchase an aggregate of 343,859 Common Shares at a price per share equal to \$2.1375. On any Option Securities Closing Date, the Company agrees to issue to Newbridge Securities Corporation (for its own account and not as the Representative of the several Underwriters), Underwriter Warrants to purchase an aggregate of 7% of the number of Option Shares purchased at the Option Securities Closing Date at a price per share equal to \$2.1375. The Underwriter Warrants will be exercisable at any time and from time to time on or after six months following the Firm Securities Closing Date (as defined below) up to four years and six months following the Firm Securities Closing Date. Each Underwriter Warrant shall be substantially identical to the form of Warrant filed as an exhibit to the Registration Statement (as defined herein).

(d) Payment of the purchase price for the Firm Securities, and delivery of certificates for the Firm Shares, shall be made at the offices of Newbridge Securities Corporation, 1200 North Federal Highway, Boca Raton, FL 33432, at 10:00 a.m., New York City time, on the second business day following the date of this Agreement or at such time on such other date, not later than ten (10) business days after the date of this Agreement, as shall be agreed upon by the Company and the Representative (such time and date of delivery and payment are called the “Firm Securities Closing Date”). In addition, in the event that any or all of the Option Securities are purchased by the Underwriters, payment of the purchase price, and delivery of the certificates, for such Option Securities shall be made at the above-mentioned offices, or at such other place as shall be agreed upon by the Representative and the Company, on each date of delivery as specified in the notice from the Representative to the Company (such time and date of delivery and payment are called the “Option Securities Closing Date”). The Firm Securities Closing Date and any Option Securities Closing Date are called, individually, a “Closing Date” and, together, the “Closing Dates.”

(e) Payment for the Securities shall be made to the Company by wire transfer of immediately available funds or by certified or official bank check or checks payable in New York Clearing House (same day) funds drawn to the order of the Company, against delivery to the Representative for the respective accounts of the Underwriters of certificates for the Securities to be purchased by them.

(f) The Securities shall be registered in such names and shall be in such denominations as the Representative shall request before the Firm Securities Closing Date, or, in the case of Option Securities, on the day of notice of exercise of the option as described in Section 1(b), and the Shares shall be delivered by or on behalf of the Company to the Representative through the facilities of the Depository Trust Company ("DTC") for the account of such Representative. The original, signed Warrants shall be delivered to the Representative (or its designees) in definitive form and shall be made available for inspection by the Representative on the business day prior to the applicable Closing Date.

2. Representations and Warranties of the Company. The Company represents and warrants to each Underwriter as of the date hereof, as of the Firm Securities Closing Date and as of each Option Securities Closing Date (if any), as follows:

(a) On the Effective Date, the Registration Statement complied, and on the date of the Prospectus, the date any post-effective amendment to the Registration Statement becomes effective, the date any supplement or amendment to the Prospectus is filed with the Commission, the Registration Statement and the Prospectus (and any amendment thereof or supplement thereto) will comply, in all material respects, with the requirements of the Securities Act and the Rules and the Securities and Exchange Act of 1934, as amended (the "Exchange Act") and the rules and regulations of the Commission thereunder. Neither the Registration Statement nor any amendments thereto as of the times they became effective, contained any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading; and on the Effective Date and the other dates referred to above neither the Registration Statement nor the Prospectus, nor any amendment or supplement of either of the foregoing, will contain any untrue statement of a material fact or will omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading. When any Preliminary Prospectus was first filed with the Commission (whether filed as part of the Registration Statement or any amendment thereto or pursuant to Rule 424(a) of the Rules) and when any amendment thereof or supplement thereto was first filed with the Commission, such Preliminary Prospectus as amended or supplemented complied in all material respects with the applicable provisions of the Securities Act and the Rules and did not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading. If applicable, each Preliminary Prospectus and the Prospectus delivered to the Underwriters for use in connection with this offering was identical to the electronically transmitted copies thereof filed with the Commission pursuant to the Commission's Electronic Data Gathering, Analysis and Retrieval system ("EDGAR"), except to the extent permitted by Regulation S-T. Notwithstanding the foregoing, none of the representations and warranties in this paragraph 2(a) shall apply to statements in, or omissions from, the Registration Statement, any Preliminary Prospectus or the Prospectus made in reliance upon, and in conformity with, information herein or otherwise furnished in writing by the Representative on behalf of the several Underwriters specifically for use in the Registration Statement, any Preliminary Prospectus or the Prospectus, as the case may be. With respect to the preceding sentence, the Company acknowledges that the only information furnished in writing by the Representative on behalf of the several Underwriters for use in the Registration Statement, any Preliminary Prospectus or the Prospectus is the statements contained in the fifth, ninth and tenth paragraphs under the caption "Underwriting" in the Prospectus (collectively, the "Underwriter Information").

(b) As of the Applicable Time (as hereinafter defined), none of (i) the price to the public and the number of Securities offered and sold, as indicated on the cover page of the Prospectus and the Statutory Prospectus (as hereinafter defined), all considered together (collectively, the “General Disclosure Package”), (ii) any individual Issuer Free Writing Prospectus when considered together with the General Disclosure Package, and (iii) any individual Written Testing-the-Waters Communication (as defined herein), when considered together with the General Disclosure Package, included, includes or will include any untrue statement of a material fact or omitted, omits or will omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements in or omissions in the General Disclosure Package made in reliance upon and in conformity with the Underwriter Information.

Each Issuer Free Writing Prospectus (as hereinafter defined), including any electronic road show (including without limitation any “bona fide electronic road show” as defined in Rule 433(h)(5) under the Securities Act) (each, a “Road Show”) (i) is identified in Schedule III hereto and (ii) complied when issued, and complies, in all material respects with the requirements of the Securities Act and the Rules and the Exchange Act and the rules and regulations of the Commission thereunder. The Company has made at least one version of the Road Show available without restriction by means of graphic communication to any person, including any potential investor in the Securities (and if there is more than one version of a Road Show for the offering that is a written communication, the version available without restriction was made available no later than the other versions).

As used in this Section and elsewhere in this Agreement:

“Applicable Time” means 4:30 p.m. (Eastern time) on the date of this Agreement.

“Statutory Prospectus” as of any time means the Preliminary Prospectus relating to the Securities that is included in the Registration Statement immediately prior to the Applicable Time.

“Issuer Free Writing Prospectus” means each “free writing prospectus” (as defined in Rule 405 of the Rules) prepared by or on behalf of the Company or used or referred to by the Company in connection with the offering of the Securities, including, without limitation, each Road Show.

(c) The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of any Preliminary Prospectus, the Prospectus or any "free writing prospectus", as defined in Rule 405 under the Rules, has been issued by the Commission and no proceedings for that purpose have been instituted or are threatened under the Securities Act. Any required filing of any Preliminary Prospectus and/or the Prospectus and any supplement thereto pursuant to Rule 424(b) of the Rules has been or will be made in the manner and within the time period required by such Rule 424(b). Any material required to be filed by the Company pursuant to Rule 433(d) or Rule 163(b)(2) of the Rules has been or will be made in the manner and within the time period required by such Rules. The documents incorporated by reference in the Registration Statement, any Preliminary Prospectus and the Prospectus, at the time they became effective or were filed with the Commission, as the case may be, complied in all material respects with the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder, and none of such documents contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, and any further documents so filed and incorporated by reference in the Registration Statement, any Preliminary Prospectus and the Prospectus, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they are made, not misleading.

(d) Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Securities or until any earlier date that the Company notified or notifies the Representative as described in the next sentence, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof that has not been superseded or modified, the Statutory Prospectus or the Prospectus.

If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, the Statutory Prospectus or the Prospectus or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading, the Company has promptly notified or will promptly notify the Representative and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(e) The financial statements filed with the Commission as a part of and included or incorporated by reference in the Registration Statement, the Statutory Prospectus and the Prospectus, present fairly in all material respects the consolidated financial position of the Company and its subsidiaries as of the dates indicated and the results of their operations, changes in shareholders' equity and cash flows for the periods specified. Such financial statements have been prepared in conformity with generally accepted accounting principles as applied in the United States applied on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement and Prospectus fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto. No other financial statements or supporting schedules are required to be included in the Registration Statement, the Statutory Prospectus and the Prospectus. The financial data set forth in each of the Registration Statement, the Statutory Prospectus and the Prospectus fairly present the information set forth therein on a basis consistent with that of the audited financial statements contained in the Registration Statement, the Statutory Prospectus and the Prospectus. To the Company's knowledge, no person who has been suspended or barred from being associated with a registered public accounting firm, or who has failed to comply with any sanction pursuant to Rule 5300 promulgated by the Public Company Accounting Oversight Board ("PCAOB"), has participated in or otherwise aided the preparation of, or audited, the financial statements, supporting schedules or other financial data filed with the Commission as a part of and included in the Registration Statement, the Statutory Prospectus and the Prospectus.

(f) KPMG LLP (the "Auditor"), which has expressed its opinion with respect to the financial statements (which term as used in this Agreement includes the related notes thereto) filed with the Commission as a part of the Registration Statement and the Prospectus, was during the periods covered by its reports (i) an independent registered public accounting firm as required by the Securities Act, the Exchange Act, and the rules of the PCAOB, (ii) in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X under the Securities Act and (iii) a registered public accounting firm as defined by the PCAOB whose registration has not been suspended or revoked and who has not requested such registration to be withdrawn.

(g) The Company and each of its subsidiaries, including each entity (corporation, partnership, joint venture, association or other business organization) controlled directly or indirectly by the Company (each, a "subsidiary"), (i) is duly organized, validly existing and in good standing under the laws of their respective jurisdictions of incorporation or organization and each such entity has all requisite power and authority to carry on its business as is currently being conducted as described in the Statutory Prospectus and the Prospectus, and to own, lease and operate its properties and to enter into and perform its obligations pursuant to the public offer and sale of Securities and this Agreement, and (ii) has duly authorized, executed and delivered this Agreement and the other agreements to be entered into by it in connection with the public offer and sale of Securities, and each of them, assuming due authorization, execution and delivery by the other parties hereto or thereto, constitutes legal, valid and binding obligations enforceable against it in accordance with their respective terms. All of the issued shares of capital stock of, or other ownership interests in, each subsidiary have been duly and validly authorized and issued and are fully paid and non-assessable and are owned, directly or indirectly, by the Company, free and clear of any lien, charge, mortgage, pledge, security interest, claim, limitation on voting rights, equity, trust or other encumbrance, preferential arrangement, defect or restriction of any kind whatsoever. The Company and each of its subsidiaries is duly qualified to do business and is in good standing as a foreign corporation in each jurisdiction in which the nature of the business conducted by it or location of the assets or properties owned, leased or licensed by it requires such qualification, except for such jurisdictions where the failure to so qualify individually or in the aggregate would not have a material adverse effect on the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its subsidiaries considered as a whole or in the context of the public offer and sale of Securities or underwriting of the Securities (a "Material Adverse Effect"); and to the Company's knowledge, no proceeding has been instituted or is threatened in any such jurisdiction revoking, limiting or curtailing, or seeking to revoke, limit or curtail, such power and authority or qualification or taken against it for its winding-up, liquidation or dissolution or for any similar or analogous proceeding in any jurisdiction, or for it to enter into any arrangement or composition for the benefit of creditors, or for the appointment of a receiver, administrative receiver, trustee or similar officer.

(h) (i) At the time of filing the Registration Statement and (ii) on the date hereof, the Company was not and is not an “ineligible issuer,” as defined in Rule 405 of the Rules, including (but not limited to) the Company or any other subsidiary in the preceding three (3) years not having been convicted of a felony or misdemeanor or having been made the subject of a judicial or administrative decree or order as described in Rule 405 of the Rules.

(i) Except as disclosed in the Registration Statement, General Disclosure Package, Statutory Prospectus and the Prospectus, the Company and each of its subsidiaries (i) owns, possesses, or has valid and enforceable licenses or other legally enforceable rights to use all patents, patent rights, inventions, trademarks, trademark applications, trade names, service marks, copyrights, copyright applications, licenses, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems, processes or procedures) and other similar rights and proprietary knowledge (in each case, whether registered or not and including applications for registration) (collectively, “Intangibles”) that is, to the knowledge of the Company, necessary for the conduct of its business. Neither the Company nor any of its subsidiaries has received any notice of, or is not aware of, any infringement of or conflict with valid asserted rights of others with respect to any Intangibles and neither the Company nor any of its subsidiaries has knowledge of any infringement of or conflict with valid asserted rights of others or of any infringement of, or conflict with the Company and its subsidiaries’ rights with respect to any Intangibles, (ii) the conduct of the Company’s business does not, to its knowledge, infringe Intangibles of a third party and neither of the Company nor any of its subsidiaries has received any notice of infringement of or conflict with, and neither of the Company nor any of its subsidiaries has knowledge of any infringement of or conflict with, valid asserted rights of a third party with respect to any Intangibles, except for or in respect of any such infringements or conflicts that would not, individually or in the aggregate, have a Material Adverse Effect.

(j) The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Prospectus, being collectively referred to herein as the “SEC Reports”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Company has never been an issuer subject to Rule 144(i) under the Securities Act. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles in the United States, applied on a consistent basis during the periods involved (“GAAP”), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments. The agreements and documents described in the Registration Statement, the Preliminary Prospectus, the General Disclosure Package, the Prospectus, and the SEC Reports conform in all material aspects to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the rules and regulations thereunder to be described in the Registration Statement, the Preliminary Prospectus, the General Disclosure Package, the Prospectus or the SEC Reports or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and that is listed in the exhibits to the Registration Statement and is material to the Company’s business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company’s knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors’ rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefore may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the Company’s knowledge, any other party is in default thereunder and, to the Company’s knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the Company’s knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses, including, without limitation, those relating to environmental laws and regulations, except in each case, as would not reasonably be expected to have a Material Adverse Effect.

(k) Subsequent to the respective dates as of which information is given in the Registration Statement, the Statutory Prospectus and the Prospectus, (i) there has not been any event which could have a Material Adverse Effect; (ii) neither the Company nor any of its subsidiaries has sustained any loss or interference with its assets, businesses or properties (whether owned or leased) from fire, explosion, earthquake, flood or other calamity, whether or not covered by insurance, or from any labor dispute or any court or legislative or other governmental action, order or decree which would have a Material Adverse Effect; and (iii) since the date of the latest balance sheet included in the Registration Statement and the Prospectus, neither the Company nor its subsidiaries has (A) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money, except such liabilities or obligations incurred in the ordinary course of business, (B) entered into any transaction not in the ordinary course of business or (C) declared or paid any dividend or made any distribution on any shares of its stock or redeemed, purchased or otherwise acquired or agreed to redeem, purchase or otherwise acquire any shares of its capital stock.

(l) There is no document, contract or other agreement required to be described in the Registration Statement, the Statutory Prospectus or the Prospectus or to be filed as an exhibit to the Registration Statement which is not described or filed as required by the Securities Act or Rules. Each description of a contract, document or other agreement in the Registration Statement, the Statutory Prospectus or the Prospectus accurately reflects in all material respects the terms of the underlying contract, document or other agreement. Each contract, document or other agreement listed in the exhibits to the Registration Statement is in full force and effect and is valid and enforceable by and against the Company or its subsidiary, as the case may be, in accordance with its terms. Neither the Company nor any of its subsidiaries, if a subsidiary is a party, nor to the Company's knowledge, any other party, is in default in the observance or performance of any term or obligation to be performed by it under any such agreement, and to the Company's knowledge, no event has occurred which with notice or lapse of time or both would constitute such a default, in any such case which default or event, individually or in the aggregate, would have a Material Adverse Effect. No default exists, and no event has occurred which with notice or lapse of time or both would constitute a default, in the due performance and observance of any term, covenant or condition, by the Company or its subsidiary, if a subsidiary is a party thereto, of any other agreement or instrument to which the Company or any of its subsidiaries is a party or by which Company or its properties or business or a subsidiary or its properties or business may be bound or affected which default or event, individually or in the aggregate, would have a Material Adverse Effect.

(m) The statistical and market related data included in the Registration Statement, the Statutory Prospectus or the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate.

(n) Neither the Company nor any subsidiary (i) is in violation of its certificate or articles of incorporation, bylaws, certificate of formation, limited liability company agreement, partnership agreement or other organizational documents, (ii) is in default under, and no event has occurred which, with notice or lapse of time, or both, would constitute a default under, or result in the creation or imposition of any lien, charge, mortgage, pledge, security interest, claim, limitation on voting rights, equity, trust or other encumbrance, preferential arrangement, defect or restriction of any kind whatsoever, upon, any property or assets of the Company or any subsidiary pursuant to, any bond, debenture, note, indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which it is a party or by which it is bound or to which any of its properties or assets is subject, or (iii) is in violation of any statute, law, rule, regulation, ordinance, directive, judgment, decree or order of any judicial, regulatory or other legal or governmental agency or body, foreign or domestic.

(o) The Company has full right, power and authority to execute and deliver this Agreement and the Warrants, and to perform its obligations hereunder and thereunder; and all action required to be taken for the due and proper authorization, execution and delivery by it of this Agreement and the Warrants, and the consummation by it of the transactions contemplated hereby and thereby has been duly and validly taken.

(p) This Agreement and the Warrants have been duly authorized, executed and delivered by the Company and each, assuming the due authorization, execution and delivery by the other parties hereto, constitutes a valid and legally binding agreement of the Company, enforceable in accordance with its terms, except as (i) the enforcement hereof may be limited by bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors or by general equitable principles (whether considered in a proceeding at law or in equity) relating to enforceability and (ii) rights to indemnification and contribution hereunder may be limited by applicable law and public policy considerations.

(q) Neither the execution, delivery and performance of this Agreement by the Company nor the consummation of any of the transactions contemplated hereby (including, without limitation, the issuance and sale by the Company of the Securities) will give rise to a right to terminate or accelerate the due date of any payment due under, or conflict with or result in the breach of any term or provision of, or constitute a default (or an event which with notice or lapse of time or both would constitute a default) under, or require any consent or waiver under, or result in the execution or imposition of any lien, charge or encumbrance upon any properties or assets of the Company or its subsidiaries pursuant to the terms of, any indenture, mortgage, deed of trust or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which either the Company or its subsidiaries or any of their properties or businesses is bound, or any franchise, license, permit, judgment, decree, order, statute, rule or regulation applicable to the Company or any of its subsidiaries or violate any provision of the charter or bylaws or other organizational documents of the Company or any of its subsidiaries, except for such consents or waivers which have already been obtained and are in full force and effect.

(r) The Company has authorized and outstanding capital stock as set forth under the caption "Capitalization" in the Statutory Prospectus and the Prospectus. All of the issued and outstanding shares of capital stock of the Company have been duly and validly issued and are fully paid and nonassessable and have been issued in compliance with all federal, state and local laws and regulations. There are no statutory preemptive or other similar rights to subscribe for or to purchase or acquire any shares of capital stock of the Company or any of its subsidiaries, or any such rights pursuant to its charter, certificate of incorporation or bylaws or any other applicable organizational documents or any agreement or instrument to or by which the Company or any of its subsidiaries is a party or bound. The Securities have been duly authorized for issuance and sale pursuant to this Agreement. When issued and sold pursuant to this Agreement, the Shares will be duly and validly issued, fully paid and nonassessable and none of them will be issued in violation of any preemptive or other similar right. When paid for and issued in accordance with the Warrants, the Warrant Shares will be validly issued, fully paid and non-assessable and none of them will be issued in violation of any preemptive or other similar right. Except as disclosed in the Registration Statement, the Statutory Prospectus and the Prospectus, there is no outstanding option, warrant or other right calling for the issuance of, and there is no commitment, plan or arrangement to issue, any share of capital stock of the Company or any of its subsidiaries or any security convertible into, or exercisable or exchangeable for, such shares. The exercise price of each option to acquire Common Shares (each, a "Company Stock Option") is no less than the fair market value of a share of Common Shares as determined on the date of grant of such Company Stock Option. All grants of Company Stock Options were validly issued and properly approved by the Board of Directors of the Company (and, if required, by a committee of the Board of Directors of the Company and/or the shareholders of the Company) in material compliance with all applicable laws and the terms of the plans under which such Company Stock Options were issued and were recorded on the financial statements of the Company, in accordance with generally accepted accounting principles in the United States, and no such grants involved any "back dating", "forward dating," "spring loading" or similar practices with respect to the effective date of grant. The Securities conform in all material respects to all statements in relation thereto contained in the Registration Statement and the Statutory Prospectus and the Prospectus.

(s) As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times from its duly authorized capital stock, free of preemptive rights, a sufficient number of Common Shares for the purpose of enabling the Company to issue Warrant Shares issuable upon exercise of outstanding Warrants.

(t) No holder of any security of the Company has any right, which has not been waived, to have any security owned by such holder included in the Registration Statement or to demand registration of any security owned by such holder for a period of ninety (90) days after the date of this Agreement. Each director and executive officer of the Company listed on Schedule II hereto has delivered to the Representative his enforceable written lock-up agreement in the form attached to this Agreement as Exhibit B hereto ("Lock-Up Agreement").

(u) There are no legal or governmental proceedings pending to which the Company or any of its subsidiaries is a party or of which any property of the Company or any of its subsidiaries is the subject which, if determined adversely to the Company or any of its subsidiaries could, except as set forth in or contemplated in the Registration Statement, General Disclosure Package, Statutory Prospectus and the Prospectus, individually or in the aggregate have a Material Adverse Effect; and, to the knowledge of the Company, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.

(v) Neither the Company nor any of its subsidiaries is involved in any labor dispute with its employees nor, to the knowledge of the Company, is any such dispute threatened, which dispute would have a Material Adverse Effect, except as set forth in or contemplated in the Registration Statement, General Disclosure Package, Statutory Prospectus and the Prospectus. The Company is not aware of any existing or imminent labor disturbance by the employees of any of its principal suppliers or contractors which would reasonably be expected to have a Material Adverse Effect, except as set forth in or contemplated in the Registration Statement, General Disclosure Package, Statutory Prospectus and the Prospectus. The Company is not aware of any threatened or pending litigation between the Company or its subsidiaries and any of its executive officers which, if adversely determined, could have a Material Adverse Effect.

(w) No transaction has occurred between or among the Company and any of its officers or directors, shareholders or any affiliate or affiliates of any such officer or director or shareholder that is required to be described in and is not described in the Registration Statement, the Statutory Prospectus and the Prospectus.

(x) The Company has not taken, nor will it take, directly or indirectly, any action designed to, or which might reasonably be expected to cause or result in, or which has constituted or which might reasonably be expected to constitute, the stabilization or manipulation of the price of the Common Shares or any security of the Company to facilitate the sale or resale of any of the Securities.

(y) The Company has filed all tax returns that are required to be filed or has requested extensions thereof (except (i) in any case where such failure to file would not reasonably be expected to have a Material Adverse Effect or (ii) as set forth in or contemplated in the General Disclosure Package, Statutory Prospectus and the Prospectus (exclusive of any amendment or supplement thereto)) and has paid all taxes required to be paid by it and any other assessment, fine or penalty levied against it, to the extent that any of the foregoing is due and payable, except (i) where any such failure to pay, assessment, fine or penalty is currently being contested in good faith or would not reasonably be expected to have a Material Adverse Effect or (ii) as set forth in or, contemplated in, the General Disclosure Package, Statutory Prospectus and the Prospectus (exclusive of any amendment or supplement thereto).

(z) The Common Shares are registered pursuant to Section 12(b) or 12(g) of the Exchange Act and are listed on The Nasdaq Capital Market (“Nasdaq”) and the Toronto Stock Exchange (“TSX”), and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Shares under the Exchange Act or delisting the Common Shares from Nasdaq or the TSX, nor, except as disclosed in the Registration Statement, the Statutory Prospectus and the Prospectus, has the Company received any notification that the Commission, Nasdaq, or the TSX is contemplating terminating such registration or listing. Except as disclosed in the Registration Statement, the Statutory Prospectus and the Prospectus, the Company is in compliance with all applicable listing requirements of Nasdaq and the TSX and is in compliance with the requirements of Nasdaq and the TSX for the continued listing of the Common Shares.

(aa) The Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Securities under the Exchange Act or the quotation of the Common Shares on the Nasdaq Capital Market or TSX, nor has the Company received any notification that the Commission or the Nasdaq Capital Market or the TSX is contemplating terminating such registration or quotation.

(bb) The books, records and accounts of the Company and its subsidiaries accurately and fairly reflect the transactions in, and dispositions of, the assets of, and the results of operations of, the Company and its subsidiaries. The Company and each of its subsidiaries, considered together as one entity, maintains a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management’s general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles in the United States and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management’s general or specific authorization and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company maintains, and periodically reviews, written policies and has implemented written procedures reasonably designed to cause it and its directors, officers and employees, when acting for the Company, to comply with the laws, rules and regulations applicable to the company and its business activities.

(cc) The Company and its subsidiaries, considered together as one entity, have established and maintain disclosure controls and procedures (as such term is defined in Rule 13a-15 under the Exchange Act) and such disclosure controls and procedures are effective in all material respects to perform the functions for which they were established.

(dd) Based on the evaluation of its disclosure controls and procedures, the Company is not aware of (i) any material weakness or significant deficiency in the design or operation of internal controls which could adversely affect the Company's ability to record, process, summarize and report financial data or any material weaknesses in internal controls; or (ii) any fraud, whether or not material, that involves management or other employees who have a role in the Company's internal controls.

(ee) As preapproved in accordance with the requirements set forth in Section 10A of the Exchange Act, the Auditor has not been engaged by the Company to perform any "prohibited activities" (as defined in Section 10A of the Exchange Act).

(ff) There are no material off-balance sheet arrangements (as defined in Item 303 of Regulation S-K) that have or are reasonably likely to have a material current or future effect on the Company's financial condition, revenues or expenses, changes in financial condition, results of operations, liquidity, capital expenditures or capital resources.

(gg) The Company's Board of Directors has validly appointed an audit committee whose composition satisfies the requirements of Rule 5605 of the Nasdaq Stock Market and the Board of Directors and/or the audit committee has adopted a charter that satisfies the requirements of Rule 5605 of the Nasdaq Stock Market. The audit committee has reviewed the adequacy of its charter within the past twelve (12) months.

(hh) The Company is in compliance with all other applicable provisions of the Sarbanes-Oxley Act of 2002, as amended (the "Sarbanes-Oxley Act"), any related rules and regulations promulgated by the Commission and corporate governance requirements under applicable Nasdaq regulations upon the effectiveness of such provisions and has no reason to believe that it will not be able to comply with such provisions at the time of effectiveness. There is and has been no failure on the part of the Company or any of its directors or officers, in their capacities as such, to comply with any provision of the Sarbanes-Oxley Act, including, without limitation, Section 402 related to loans and Sections 302 and 906 related to certifications.

(ii) The Company and its subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as the Company reasonably believes are prudent and customary in the businesses in which they are engaged; all policies of insurance insuring the Company or any of its subsidiaries or the Company's or its subsidiaries' respective businesses, assets, employees, officers and directors are in full force and effect; the Company and each of its subsidiaries are in compliance with the terms of such policies and instruments in all material respects; and neither the Company nor any subsidiary of the Company has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not reasonably be expected to have a Material Adverse Effect, except as set forth in the General Disclosure Package, Statutory Prospectus and the Prospectus (exclusive of any amendment or supplement thereto). Neither the Company nor any of its subsidiaries has been denied any insurance coverage which it has sought or for which it has applied.

(jj) Each approval, consent, order, authorization, designation, declaration or filing of, by or with any regulatory, administrative or other governmental body necessary in connection with the execution and delivery by the Company of this Agreement and the Warrants and the consummation of the transactions herein and therein contemplated required to be obtained or performed by the Company has been obtained or performed, except for (i) such additional steps as may be required by the Financial Industry Regulatory Authority ("FINRA") or the TSX; (ii) as may be necessary to qualify the Securities for public offering by the Underwriters under the state securities or Blue Sky laws; and (iii) the approval by the Nasdaq Capital Market for the listing of the Common Shares, including the Warrant Shares, sold pursuant to this Agreement.

(kk) None of the Company's officers or directors or, to the best of the knowledge of the Company, any five percent or greater stockholder of the Company are affiliated with or are associated persons of any member of FINRA, except as set forth in the Registration Statement or otherwise disclosed in writing to the Representative.

(ll) (i) Each of the Company and each of its subsidiaries is in compliance in all material respects with all rules, laws and regulation relating to the use, treatment, storage and disposal of toxic substances and protection of health or the environment (each such law, an "Environmental Law") which are applicable to its business; (ii) neither the Company nor its subsidiaries has received any notice from any governmental authority or third party of an asserted claim under Environmental Laws; (iii) each of the Company and each of its subsidiaries has received all permits, licenses or other approvals required of it under applicable Environmental Laws to conduct its business and is in compliance with all terms and conditions of any such permit, license or approval; (iv) to the Company's knowledge, no facts currently exist that will require the Company or any of its subsidiaries to make future material capital expenditures to comply with Environmental Laws; and (v) no property which is or has been owned, leased or occupied by the Company or its subsidiaries has been designated as a Superfund site pursuant to the Comprehensive Environmental Response, Compensation of Liability Act of 1980, as amended (42 U.S.C. Section 9601, et. seq.) ("CERCLA 1980") or otherwise designated as a contaminated site under other Environmental Laws. Neither the Company nor any of its subsidiaries has been named as a "potentially responsible party" under CERCLA 1980.

(mm) In the ordinary course of its business, the Company periodically reviews the effect of Environmental Laws on the business, operations and properties of the Company and its subsidiaries, in the course of which the Company identifies and evaluates associated costs and liabilities (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws, or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties). On the basis of such review, the Company has reasonably concluded that such associated costs and liabilities would not, singly or in the aggregate, have a Material Adverse Effect.

(nn) The Company is not and, immediately after giving effect to the sale of the Securities and the application of proceeds thereof as described in the Statutory Prospectus and the Prospectus under the caption “Use of Proceeds”, will not be required to be registered as an “investment company” within the meaning of the Investment Company Act of 1940, as amended (the “Investment Company Act”).

(oo) Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or any of its subsidiaries is aware of or has taken any action, directly or indirectly, that could result in a violation or a sanction for violation by such persons of the Foreign Corrupt Practices Act of 1977 or the U.K. Bribery Act 2010, each as may be amended, or similar law of any other relevant jurisdiction, or the rules or regulations thereunder to which the Company and its subsidiaries are subject (the “Anti-Corruption Laws”); and the Company and its subsidiaries have instituted and maintain policies and procedures designed to ensure compliance therewith. No part of the proceeds of the offering will be used, directly or indirectly, in violation of the Anti-Corruption Laws.

(pp) The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “Money Laundering Laws”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending, or to the best knowledge of the Company, threatened.

(qq) Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or any of its subsidiaries, is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“OFAC”); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(rr) The Company has fulfilled its obligations, if any, under the minimum funding standards of Section 302 of the U.S. Employee Retirement Income Security Act of 1974 (“ERISA”) and the regulations and published interpretations thereunder with respect to each “plan” as defined in Section 3(3) of ERISA and such regulations and published interpretations in which its employees are eligible to participate and each such plan is in compliance in all material respects with the presently applicable provisions of ERISA and such regulations and published interpretations. No “Reportable Event” (as defined in 12 ERISA) has occurred that would reasonably be expected to have a Material Adverse Effect with respect to any “Pension Plan” (as defined in ERISA) for which the Company could have any liability.

(ss) None of the Company, its directors or its officers has distributed nor will distribute prior to the later of (i) the latest Closing Date and (ii) completion of the distribution of the Securities, any offering material in connection with the offering and sale of the Securities other than any Preliminary Prospectus, the Prospectus, the Registration Statement and other materials, if any, permitted by the Securities Act and consistent with the terms of this Agreement.

(tt) Since the date of the preliminary prospectus included in the Registration Statement filed with the Commission on January 22, 2024 (or, if earlier, the first date on which the Company engaged directly or through any Person authorized to act on its behalf in any Testing-the-Waters Communication (as defined herein)) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Securities Act (an “Emerging Growth Company”). “Testing-the-Waters Communication” means any oral or written communication by the Company or by any person authorized to act on its behalf, with potential investors undertaken in reliance on Section 5(d) of the Securities Act.

(uu) The Company (a) has not alone engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the Representative with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act, and (b) has not authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company reconfirms that the Representative has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications (as defined herein) other than those listed on Schedule IV hereto. “Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act.

(vv) [Omitted]

(ww) The Company and each of its subsidiaries has all requisite corporate power and authority, and all necessary authorizations, approvals, consents, orders, licenses, certificates and permits of and from all governmental or regulatory bodies or any other person or entity (collectively, the “Permits”), to own, lease and license its assets and properties and conduct its business, all of which are valid and in full force and effect, except where the lack of such Permits, individually or in the aggregate, would not have a Material Adverse Effect. The Company and each of its subsidiaries has fulfilled and performed in all material respects all of its obligations with respect to such Permits and no event has occurred that allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other material impairment of the rights of the Company thereunder. Except as may be required under the Securities Act and state and foreign Blue Sky laws, no other Permits are required to enter into, deliver and perform this Agreement and to issue and sell the Securities.

(xx) Any certificate signed by an officer of the Company and delivered to the Underwriters or to counsel for the Underwriters pursuant to the terms of this Agreement shall be deemed a representation and warranty by the Company, as appropriate, to the Underwriters as to matters covered thereby.

(yy) Without limiting the Company's representation and warranty under (a) above, all forward-looking statements, forecasts, estimates, targets and predictions and expressions of opinion, belief, intention and expectation made by the Company expressed in or included in the Registration Statement and in the General Disclosure Package have been made on reasonable grounds after due and careful consideration of such relevant circumstances and assumptions reasonably deemed relevant by the Company and there are no facts which have not been disclosed which by their omission make any such estimates materially misleading or which are material for disclosure. To the Company's knowledge, each of the assumptions used in the preparation of the forward-looking statements, forecasts, estimates, targets and predictions are reasonable and, to the Company's knowledge, there are no other material assumptions that should reasonably be taken into account in the preparation of such information and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein.

(zz) (i) No outstanding indebtedness of the Company or any of its subsidiaries has become repayable before its stated maturity, nor has any security in respect of such indebtedness become enforceable by reason of default by the Company or any of its subsidiaries, and no event has occurred or is, to the Company's knowledge, impending which, with the lapse of time or the fulfilment of any condition or the giving of notice or the compliance with any other formality, may reasonably be expected to result in any such indebtedness becoming so repayable or any such security becoming enforceable and neither the Company nor any of its subsidiaries has received notice from any person to whom any indebtedness of the Company or any of its subsidiaries which is repayable on demand is owed, demanding or, to the Company's knowledge, threatening to demand repayment of, or to take any steps to enforce any security for, the same; (ii) the amounts borrowed by the Company or any of its subsidiaries do not exceed any limitation (A) on borrowing contained in its constitutional documents, any debenture or other deed or document binding upon them, and neither the Company nor any of its subsidiaries has outstanding any loan capital, or is or has engaged in a financing of a type which would not be required to be shown or reflected in its audited accounts, except in any such case as would not, individually or in the aggregate, have a Material Adverse Effect; and (B) all borrowing facilities of each of the Company and each of its subsidiaries have been duly executed by the Company and each of its subsidiaries and are in full force and effect and are in compliance with all covenants and undertakings contained therein, except as may terminate in accordance with their terms.

(aaa) The Company and its subsidiaries have no pending insolvency, bankruptcy, composition or similar proceedings pending against them and have no reason to believe that any such proceeding may be brought and are not in liquidation or receivership.

(bbb) (i) All the information and communications technologies required for use in the business of the Company and its subsidiaries, including, without limitation, hardware, proprietary and third party software, networks, peripherals and associated documentation and any IT systems currently being implemented by the Company (“**IT Systems**”) used in connection with the businesses of the Company and its subsidiaries: (A) are owned by, or properly licensed or leased to, the Company or its subsidiaries, as applicable, and are not dependent on any facilities or systems which are not under the ownership or control of the Company and its subsidiaries and the Company and its subsidiaries do not share any user rights with any other person; and (B) are all the IT Systems required for the present needs of the business of the Company and its subsidiaries and the Company has taken reasonable steps to ensure system capacity and ability to process current peak volumes in a timely manner; (ii) in relation to the IT Systems, there has not been any act or default by the Company or any of its subsidiaries or their sub-lessees, sub-licensees, sub-contractors nor any other person, and there is no breach of any lease, license, support, maintenance service agreement, understanding or other arrangement (together, “**IT Contracts**”) granted or provided by a third party in favor of the Company or any of its subsidiaries which may in any way, in the reasonable opinion of the Company, result in any IT Contract being terminated. There is no reason to believe that any IT Contract granted or provided by a third party will not be renewed when it expires on the same or substantially the same terms (including as regards pricing and any other commercial details); (iii) there are no circumstances in which the ownership, benefit or right to use the IT Systems may be lost or rendered liable to termination, by virtue of the making of the public offer and sale of Securities as contemplated by this Agreement (and the Registration Statement and the General Disclosure Package), the entry into and performance of this Agreement and each agreement referred to in it, or the offering and sale of the Securities, except for any such losses or terminations that would not, individually or in the aggregate, have a Material Adverse Effect or otherwise be material in the context of the offering of Securities.

(ccc) The Company and its subsidiaries comply in all material respects with all applicable data protection laws, guidelines and industry standards and of any privacy policies of its own. Neither the Company nor any of its subsidiaries has received any notice from a competent authority (including any information or enforcement notice, or any transfer prohibition notice) alleging that the Company or any of its subsidiaries has not complied with applicable data protection laws, guidelines and industry standards. None of the Company or any of its subsidiaries has received any material unresolved written claim from an individual for compensation for breaches of applicable data protection laws or for loss or unauthorized disclosure of personal data.

(ddd) Neither the Company nor any of its subsidiaries has engaged in price exchange, price fixing or other comparable anti-competitive practices. Neither the Company nor any of its subsidiaries is a party to any agreement, arrangement or concerted practice or is carrying on any practice which in whole or in part contravenes or is invalidated by any anti-trust, anti-monopoly, competition, fair trading, consumer protection or similar legislation in any jurisdiction of the Company or any of its subsidiaries is established or operating or in respect of which any filing, registration or notification is required or is advisable pursuant to such legislation (whether or not the same has in fact been made), except for any such contraventions or invalidations, or any such failures to make a filing, registration or notification, that would not, individually or in the aggregate, have a Material Adverse Effect or otherwise be material in the context of the public offer and sale of Securities.

(eee) Neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of any applicable shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

3. Conditions of the Underwriters' Obligations. The obligations of the Underwriters under this Agreement are several and not joint. The respective obligations of the Underwriters to purchase the Securities are subject to each of the following terms and conditions:

(a) Notification that the Registration Statement has become effective shall have been received by the Representative and the Prospectus shall have been timely filed with the Commission in accordance with Section 4(a) of this Agreement and any material required to be filed by the Company pursuant to Rule 433(d) of the Rules shall have been timely filed with the Commission in accordance with such rule.

(b) No order preventing or suspending the use of any Preliminary Prospectus, the Prospectus or any "free writing prospectus" (as defined in Rule 405 of the Rules), shall have been or shall be in effect and no order suspending the effectiveness of the Registration Statement shall be in effect and no proceedings for such purpose shall be pending before or threatened by the Commission, and any requests for additional information on the part of the Commission (to be included in the Registration Statement or the Prospectus or otherwise) shall have been complied with to the satisfaction of the Commission and the Representative. If the Company has elected to rely upon Rule 430A, Rule 430A information previously omitted from the effective Registration Statement pursuant to Rule 430A shall have been transmitted to the Commission for filing pursuant to Rule 424(b) within the prescribed time period and the Company shall have provided evidence satisfactory to the Underwriters of such timely filing, or a post-effective amendment providing such information shall have been promptly filed and declared effective in accordance with the requirements of Rule 430A.

(c) The representations and warranties of the Company contained in this Agreement and in the certificates delivered pursuant to Section 3(d) shall be true and correct when made and on and as of each Closing Date as if made on such date. The Company shall have performed all covenants and agreements and satisfied all the conditions contained in this Agreement required to be performed or satisfied by it at or before each Closing Date.

(d) The Representative shall have received on each Closing Date a certificate, addressed to the Representative and dated as of the respective Closing Date, of the chief executive or chief operating officer and the chief financial officer or chief accounting officer of the Company to the effect that: (i) the representations, warranties and agreements of the Company in this Agreement were true and correct when made and are true and correct as of such Closing Date; (ii) the Company has performed all covenants and agreements and satisfied all conditions contained herein; (iii) they have carefully examined the Registration Statement, the Prospectus, the General Disclosure Package, and any individual Issuer Free Writing Prospectus and, in their opinion (A) as of the Effective Date the Registration Statement and Prospectus did not include, and as of the Applicable Time, neither (i) the General Disclosure Package, nor (ii) any individual Issuer Free Writing Prospectus, when considered together with the General Disclosure Package, included any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and (B) since the Effective Date, no event has occurred which should have been set forth in a supplement or otherwise required an amendment to the Registration Statement, the Statutory Prospectus or the Prospectus; (iv) no stop order suspending the effectiveness of the Registration Statement has been issued and, to their knowledge, no proceedings for that purpose have been instituted or are pending under the Securities Act and (v) there has not occurred any Material Adverse Effect.

(e) The Representative shall have received: (i) simultaneously with the execution of this Agreement, a signed letter from the Auditor addressed to the Representative and dated the date of this Agreement, in form and substance reasonably satisfactory to the Representative, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement and the General Disclosure Package, and (ii) on each Closing Date, a signed letter from the Auditor addressed to the Representative and dated the date of the respective Closing Date, in form and substance reasonably satisfactory to the Representative containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement and the Prospectus.

(f) The Representative shall have received on each Closing Date from Dorsey & Whitney LLP, U.S. counsel for the Company, an opinion and a negative assurance letter, addressed to the Representative and dated as of such Closing Date, in form and substance reasonably satisfactory to the Representative.

(g) The Representative shall have received on each Closing Date from McCarthy Tétrault LLP, Canadian counsel for the Company, an opinion, addressed to the Representative and dated as of such Closing Date, in form and substance reasonably satisfactory to the Representative.

(h) The Representative shall have received on each Closing Date from Cooley LLP, intellectual property counsel to the Company, an opinion, addressed to the Representative and dated as of such Closing Date, in form and substance reasonably satisfactory to the Representative.

(i) The Representative shall have received on each Closing Date from Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel for the Representative, a negative assurance statement, addressed to the Representative and dated as of such Closing Date, with respect to such matters as the Representative may reasonably require, and the Company shall have furnished or provided access to such counsel of such documents as they request for enabling them to pass upon such matters.

(j) All proceedings taken in connection with the sale of the Securities as herein contemplated shall be reasonably satisfactory in form and substance to the Representative and its counsel.

(k) The Representative shall have received copies of the Lock-up Agreements executed by each entity or person listed on Schedule II hereto.

(l) The Company shall apply to list or quote and promptly secure the listing of all of the Common Shares, including the Warrant Shares, sold pursuant to this Agreement on the Nasdaq Capital Market. The Company has taken no action to, or likely to have the effect of, delisting the Common Shares, nor has the Company received any notification that the Nasdaq Capital Market is contemplating terminating such listing.

(m) The Representative shall be reasonably satisfied that since the respective dates as of which information is given in the Registration Statement, the Statutory Prospectus, the General Disclosure Package and the Prospectus, (i) there shall not have been any material change in the capital stock of the Company or any material change in the indebtedness (other than in the ordinary course of business) of the Company, (ii) except as set forth or contemplated by the Registration Statement, the Statutory Prospectus, the General Disclosure Package or the Prospectus, no material oral or written agreement or other transaction shall have been entered into by the Company that is not in the ordinary course of business or that would result in a material reduction in the future earnings of the Company, (iii) no loss or damage (whether or not insured) to the property of the Company shall have been sustained that had or would have a Material Adverse Effect, (iv) no legal or governmental action, suit or proceeding affecting the Company or any of its properties that is material to the Company or that affects or could affect the transactions contemplated by this Agreement shall have been instituted or threatened and (v) there shall not have been any material change in the assets, properties, condition (financial or otherwise), or in the results of operations, business affairs or business prospects of the Company or its subsidiaries considered as a whole that makes it impractical or inadvisable in the Representative's judgment to proceed with the purchase or offering of the Securities as contemplated hereby.

(n) FINRA shall have confirmed that it has not raised any objection with respect to the fairness and reasonableness of the underwriting terms and agreements in connection with the offering of the Securities.

(o) The Company shall have furnished or caused to be furnished to the Representative such further certificates or documents as the Representative shall have reasonably requested.

4. Covenants and other Agreements of the Company and the Underwriters.

(a) The Company covenants and agrees as follows:

(i) The Company will use its best efforts to cause the Registration Statement, if not effective at the time of execution of this Agreement, and any amendments thereto, to become effective as promptly as possible. The Company shall prepare the Prospectus in a form approved by the Representative and file such Prospectus pursuant to Rule 424(b) under the Securities Act not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by the Rules. The Company will file with the Commission all Issuer Free Writing Prospectuses in the time and manner required under Rules 433(d) or 163(b)(2), as the case may be.

(ii) The Company shall promptly advise the Representative in writing (A) when any post-effective amendment to the Registration Statement shall have become effective or any supplement to the Prospectus shall have been filed, (B) of any request by the Commission for any amendment of the Registration Statement or the Prospectus or for any additional information, (C) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any order preventing or suspending the use of any preliminary prospectus or any "free writing prospectus", as defined in Rule 405 of the Rules, or the institution or threatening of any proceeding for that purpose and (D) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Securities for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose. The Company shall not file any amendment of the Registration Statement or supplement to the Prospectus or any document incorporated by reference in the Registration Statement or any Issuer Free Writing Prospectus unless the Company has furnished the Representative a copy for its review prior to filing and shall not file any such proposed amendment or supplement to which the Representative reasonably objects. The Company shall use its best efforts to prevent the issuance of any such stop order and, if issued, to obtain as soon as possible the withdrawal thereof.

(iii) If, at any time when a prospectus relating to the Securities (or, in lieu thereof, the notice referred to in Rule 173(a) of the Rules) is required to be delivered under the Securities Act and any event occurs as a result of which the Prospectus as then amended or supplemented would include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein in the light of the circumstances under which they were made not misleading, or if it shall be necessary to amend or supplement the Prospectus to comply with the Securities Act or the Rules or the Exchange Act and the rules and regulations of the Commission thereunder, the Company promptly shall prepare and file with the Commission, subject to the second sentence of paragraph (ii) of this Section 4(a), an amendment or supplement which shall correct such statement or omission or an amendment which shall effect such compliance.

(iv) If at any time following issuance of an Issuer Free Writing Prospectus there occurs an event or development as a result of which such Issuer Free Writing Prospectus would conflict with the information contained in the Registration Statement or would include an untrue statement of a material fact or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(v) The Company shall make generally available to its security holders and to the Representative as soon as practicable, but not later than forty-five (45) days after the end of the 12-month period beginning at the end of the fiscal quarter of the Company during which the Effective Date occurs (or ninety (90) days if such 12-month period coincides with the Company's fiscal year), an earning statement (which need not be audited) of the Company, covering such 12-month period, which shall satisfy the provisions of Section 11(a) of the Securities Act or Rule 158 of the Rules.

(vi) The Company shall furnish to the Representative and counsel for the Underwriters, without charge, signed copies of the Registration Statement (including all exhibits thereto and amendments thereof) and to each other Underwriter a copy of the Registration Statement (without exhibits thereto) and all amendments thereof and, so long as delivery of a prospectus by an Underwriter or dealer may be required by the Securities Act or the Rules, as many copies of any Preliminary Prospectus, any Issuer Free Writing Prospectus and the Prospectus and any amendments thereof and supplements thereto as the Representative may reasonably request. If applicable, the copies of the Registration Statement, Preliminary Prospectus, any Issuer Free Writing Prospectus and Prospectus and each amendment and supplement thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(vii) The Company shall cooperate with the Representative and their counsel in endeavoring to qualify the Securities for offer and sale in connection with the offering under the laws of such jurisdictions as the Representative may designate and shall maintain such qualifications in effect so long as required for the distribution of the Securities; provided, however, that the Company shall not be required in connection therewith, as a condition thereof, to qualify as a foreign corporation or to execute a general consent to service of process in any jurisdiction or subject itself to taxation as doing business in any jurisdiction.

(viii) The Company, during the period when the Prospectus (or in lieu thereof, the notice referred to in Rule 173(a) of the Rules) is required to be delivered under the Securities Act and the Rules or the Exchange Act and the rules and regulations of the Commission thereunder, will file all reports and other documents required to be filed with the Commission pursuant to Section 13, 14 or 15 of the Exchange Act within the time periods required by the Exchange Act and the regulations promulgated thereunder.

(ix) Without the prior written consent of the Representative, for a period of 90 days after the date of this Agreement ("Lock-Up Period"), the Company shall not issue, sell or register with the Commission (other than on Form S-8 or on any successor form), or otherwise dispose of, directly or indirectly, any equity securities of the Company (or any securities convertible into, exercisable for or exchangeable for equity securities of the Company), except for (i) the issuance of the Securities pursuant to the Registration Statement, (ii) the issuance of shares pursuant to the Company's existing equity incentive plan, employee stock option plan or bonus plan as described in the Registration Statement and the Prospectus, (iii) the issuance of Common Shares pursuant to the conversion of securities or the exercise of warrants, which securities or warrants are outstanding on the date hereof and described in the Registration Statement and the Prospectus; (iv) the adoption of a new equity incentive plan, and filing a registration statement on Form S-8 under the Securities Act to register the offer and sale of securities to be issued pursuant to such new equity incentive plan, and issue securities pursuant to such new equity incentive plan (including, without limitation, the issuance of Common Shares upon the exercise of options or other securities issued pursuant to such new equity incentive plan), provided that (1) such new equity incentive plan satisfies the transaction requirements of General Instruction A.1 of Form S-8 under the Securities Act and (2) this clause shall not be available unless each recipient of Common Shares, or securities exchangeable or exercisable for or convertible into Common Shares, pursuant to such new equity incentive plan shall be contractually prohibited from selling, offering, disposing of or otherwise transferring any such shares or securities during the remainder of the Lock-Up Period; (v) the sale of shares pursuant to the Equity Distribution Agreement, dated December 9, 2022, between the Company and Jones Trading Institutional Services LLC, provided that such sales may not occur prior to 45 days following the date of this Agreement unless the price per share during such period equals or exceeds 125% of the Firm Price; (vi) the sale of shares pursuant to the Common Share Purchase Agreement, dated May 25, 2023, between the Company and Keystone Capital Partners, LLC, provided that such sales may not occur prior to 45 days following the date of this Agreement unless the price per share during such period equals or exceeds 125% of the Firm Price; and (vii) the sale of shares to Hanmi Pharmaceutical, Inc. pursuant to the agreements between the Company and Hanmi Pharmaceutical, Inc. in effect of the date hereof, provided that the subscription price paid by Hanmi Pharmaceutical, Inc. equals or exceeds the Firm Price.

(x) On or before completion of this offering, the Company shall make all filings required under applicable securities laws and by Nasdaq (including any required registration under the Exchange Act).

(xi) Prior to the Closing Date, the Company will issue no press release or other communications directly or indirectly and hold no press conference with respect to the Company, the condition, financial or otherwise, or the earnings, business affairs or business prospects of any of them, or the offering of the Securities without the prior written consent of the Representative unless in the judgment of the Company and its counsel, and after notification to the Representative, such press release or communication is required by law.

(xii) The Company will apply the net proceeds from the offering of the Securities in the manner set forth under "Use of Proceeds" in the Prospectus.

(xiii) The Company will promptly notify the Representative if the Company ceases to be an Emerging Growth Company at any time prior to the later of (a) completion of the distribution of the Securities within the meaning of the Securities Act and (b) completion of the 90-day restricted period referred to in Section 4(a)(ix) hereof.

(xiv) If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(b) The Company agrees to pay, or reimburse if paid by the Representative, whether or not the transactions contemplated hereby are consummated or this Agreement is terminated, all costs and expenses incident to the public offering of the Securities and the performance of the obligations of the Company under this Agreement including those relating to: (i) the preparation, printing, reproduction filing and distribution of the Registration Statement including all exhibits thereto, each Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus, all amendments and supplements thereto and any document incorporated by reference therein, and the printing, filing and distribution of this Agreement; (ii) the preparation and delivery of the Securities to the Underwriters; (iii) the furnishing (including costs of shipping and mailing) to the Representative and to the Underwriters of copies of each Preliminary Prospectus, the Prospectus and all amendments or supplements to the Prospectus, any Issuer Free Writing Prospectus, and of the several documents required by this Section 4 to be so furnished, as may be reasonably requested for use in connection with the offering and sale of the Securities by the Underwriters or by dealers to whom Securities may be sold; (iv) inclusion of the Shares and Warrant Shares for quotation on Nasdaq; (v) all transfer taxes, if any, with respect to the sale and delivery of the Securities by the Company to the Underwriters; and (vi) all reasonable out-of-pocket costs and expenses incident to the offering and the performance of the obligations of the Representative under this Agreement (including, without limitation, the fees and expenses of counsel to the Underwriters) not to exceed \$125,000 in the aggregate (without the Company's prior approval and for certainty, such \$125,000 shall be inclusive of the fees and expenses of counsel to the Underwriters for services provided to any prior proposed underwriter for an offering of securities by the Company), excluding (x) the registration or qualification of the Shares and Warrant Shares for offer and sale under the securities or Blue Sky laws of the various jurisdictions referred to in Section 4(a)(vi), including the reasonable fees and disbursements of counsel for the Underwriters in connection with such registration and qualification and the preparation, printing, distribution and shipment of preliminary and supplementary Blue Sky memoranda and (y) the filing fees of FINRA in connection with its review of the terms of the public offering and reasonable fees and disbursements of counsel for the Underwriters in connection with such review. The Underwriters agree to pay, whether or not the transactions contemplated hereby are consummated or this Agreement is terminated, all costs and expenses incident to the performance of the obligations of the Underwriters under this Agreement not payable by the Company pursuant to the preceding sentence, including, without limitation, the fees and disbursements of counsel for the Underwriters.

(c) The Company acknowledges and agrees that each of the Underwriters has acted and is acting solely in the capacity of a principal in an arm's length transaction between the Company, on the one hand, and the Underwriters, on the other hand, with respect to the offering of Securities contemplated hereby (including in connection with determining the terms of the offering) and not as a financial advisor, agent or fiduciary to the Company or any other person, and that the Underwriters may have interests that differ from those of the Company. Additionally, the Company acknowledges and agrees that the Underwriters have not and will not advise the Company or any other person as to any legal, tax, investment, accounting or regulatory matters in any jurisdiction. The Company has consulted with its own advisors concerning such matters and shall be responsible for making its own independent investigation and appraisal of the transactions contemplated hereby, and the Underwriters shall have no responsibility or liability to the Company or any other person with respect thereto, whether arising prior to or after the date hereof. Any review by the Underwriters of the Company, the transactions contemplated hereby or other matters relating to such transactions have been and will be performed solely for the benefit of the Underwriters and shall not be on behalf of the Company. The Company agrees that it will not claim that the Underwriters, or any of them, has rendered advisory services of any nature or respect, or owes a fiduciary duty to the company or any other person in connection with any such transaction or the process leading thereto.

(d) The Company represents and agrees that, unless it obtains the prior consent of the Representative, and each Underwriter represents and agrees that, unless it obtains the prior consent of the Company and the Representative, it has not made and will not make any offer relating to the Securities that would constitute an "issuer free writing prospectus," as defined in Rule 433, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405, required to be filed with the Commission. The Company has complied and will comply with the requirements of Rule 433 under the Securities Act applicable to any Issuer Free Writing Prospectus, including timely filing with the Commission where required, legending and record keeping. The Company represents that it has satisfied and agrees that it will satisfy the conditions set forth in Rule 433 of the Rules to avoid a requirement to file with the Commission any Road Show.

5. Indemnification.

(a) The Company agrees to indemnify and hold harmless each Underwriter, its officers and employees and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all losses, claims, damages and liabilities, joint or several (including any reasonable investigation, legal and other expenses incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted), to which they, or any of them, may become subject under the Securities Act, the Exchange Act or other federal or state law or regulation, at common law or otherwise, insofar as such losses, claims, damages or liabilities arise, directly or indirectly, in connection with, out of or are based upon i) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus, the Registration Statement, the Statutory Prospectus, the Prospectus, any Issuer Free Writing Prospectus or any "issuer-information" filed or required to be filed pursuant to Rule 433(d) of the Rules, any amendment thereof or supplement thereto, any Written Testing-the-Waters Communication, or in any Blue Sky application or other information or other documents executed by the Company filed in any state or other jurisdiction to qualify any or all of the Securities under the securities laws thereof (any such application, document or information being hereinafter referred to as a "Blue Sky Application"), ii) any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or iii) any actual or alleged breach by the Company of any of its obligations, or of any of its representations, warranties and undertakings, set out in this Agreement; provided, however, that such indemnity shall not inure to the benefit of any Underwriter (or any person controlling such Underwriter) on account of any losses, claims, damages or liabilities arising from the sale of the Securities to any person by such Underwriter if such untrue statement or omission or alleged untrue statement or omission was made in such preliminary prospectus, the Registration Statement, the Prospectus, the Statutory Prospectus, any Issuer Free Writing Prospectus or such amendment or supplement thereto, any Written Testing-the-Waters Communication, or in any Blue Sky Application in reliance upon and in conformity with the Underwriter Information. This indemnity agreement will be in addition to any liability which the Company may otherwise have.

(b) Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, each director of the Company, and each officer of the Company who signs the Registration Statement, against any losses, claims, damages or liabilities to which such party may become subject, under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus, the Registration Statement or the Prospectus, or any amendment or supplement thereto, or arise, directly or indirectly, in connection with, out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in any Preliminary Prospectus, the Registration Statement, the Statutory Prospectus or the Prospectus or any such amendment or supplement in reliance upon and in conformity with the Underwriter Information; provided, however, that the obligation of each Underwriter to indemnify the Company (including any controlling person, director or officer thereof) shall be limited to the amount of the underwriting discount and commissions applicable to the Securities to be purchased by such Underwriter hereunder.

(c) Any party that proposes to assert the right to be indemnified under this Section 5 will, promptly after receipt of notice of commencement of any action, suit or proceeding against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 5, notify each such indemnifying party in writing of the commencement of such action, suit or proceeding, enclosing a copy of all papers served. No indemnification provided for in Section 5(a) or 5(b) shall be available to any party who shall fail to give notice as provided in this Section 5(c) if the party to whom notice was not given was unaware of the action, suit or proceeding to which such notice would have related and was prejudiced by the failure to give such notice but the omission so to notify such indemnifying party of any such action, suit or proceeding shall not relieve it from any liability that it may have to any indemnified party for contribution or otherwise than under this Section 5. In case any such action, suit or proceeding shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof and the approval by the indemnified party of such counsel, the indemnifying party shall not be liable to such indemnified party for any legal or other expenses, except as provided below and except for the reasonable costs of investigation subsequently incurred by such indemnified party in connection with the defense thereof. The indemnified party shall have the right to employ its counsel in any such action, but the fees and expenses of such counsel shall be at the expense of such indemnified party unless (i) the employment of counsel by such indemnified party has been authorized in writing by the indemnifying parties, (ii) the indemnified party shall have been advised by counsel that there may be one or more legal defenses available to it which are different from or in addition to those available to the indemnifying party (in which case the indemnifying parties shall not have the right to direct the defense of such action on behalf of the indemnified party) or (iii) the indemnifying parties shall not have employed counsel to assume the defense of such action within a reasonable time after notice of the commencement thereof, in each of which cases the fees and expenses of counsel shall be at the expense of the indemnifying parties. An indemnifying party shall not be liable for any settlement of any action, suit, and proceeding or claim effected without its written consent, which consent shall not be unreasonably withheld or delayed. No indemnifying party shall settle any action, suit or proceeding for which indemnification or contribution is or would have been available hereunder to an indemnified person that was or could have been made party thereto without obtaining a release in favor of each such indemnified person from all claims brought in or arising from such action, suit or proceeding.

6. Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in Section 5(a) or 5(b) is due in accordance with its terms but for any reason is unavailable to or insufficient to hold harmless an indemnified party in respect to any losses, liabilities, claims, damages or expenses referred to therein, then each indemnifying party shall contribute to the aggregate losses, liabilities, claims, damages and expenses (including any investigation, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claims asserted, but after deducting any contribution received by any person entitled hereunder to contribution from any person who may be liable for contribution) incurred by such indemnified party, as incurred, in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other hand from the offering of the Securities pursuant to this Agreement or, if such allocation is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to above but also the relative fault of the Company on the one hand and the Underwriters on the other hand in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses, as well as any other relevant equitable considerations. The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 6 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission. Notwithstanding the provisions of this Section 6, no Underwriter (except as may be provided in any agreement among Underwriters) shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Securities purchased by such Underwriter. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 6, each person, if any, who controls an Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Section 15 of the Securities Act or Section 20 of the Exchange Act, shall have the same rights to contribution as the Company. Any party entitled to contribution will, promptly after receipt of notice of commencement of any action, suit or proceeding against such party in respect of which a claim for contribution may be made against another party or parties under this Section 6, notify such party or parties from whom contribution may be sought, but the omission so to notify such party or parties from whom contribution may be sought shall not relieve the party or parties from whom contribution may be sought from any other obligation it or they may have hereunder or otherwise than under this Section 6. No party shall be liable for contribution with respect to any action, suit, proceeding or claim settled without its written consent. The Underwriters' obligations to contribute pursuant to this Section 6 are several in proportion to their respective underwriting commitments and not joint.

7. Termination.

(a) This Agreement may be terminated with respect to the Securities to be purchased on the Firm Securities Closing Date by the Representative by notifying the Company at any time at or before the Firm Securities Closing Date in the absolute discretion of the Representative if: (i) there has occurred any material adverse change in the securities markets or any event, act or occurrence that has materially disrupted, or in the opinion of the Representative, will in the future materially disrupt, the securities markets or there shall be such a material adverse change in general financial, political or economic conditions or the effect of international conditions on the financial markets in the United States is such as to make it, in the judgment of the Representative, inadvisable or impracticable to market the Securities or enforce contracts for the sale of the Securities; (ii) there has occurred any outbreak or material escalation of hostilities or acts of terrorism or other calamity or crisis the effect of which on the financial markets of the United States is such as to make it, in the judgment of the Representative, inadvisable or impracticable to market the Securities or enforce contracts for the sale of the Securities; (iii) trading in the Securities or any securities of the Company has been suspended or materially limited by the Commission or trading generally on the New York Stock Exchange, Inc. or the Nasdaq Stock Market has been suspended or materially limited, or minimum or maximum ranges for prices for securities shall have been fixed, or maximum ranges for prices for securities have been required, by any of said exchanges or by such system or by order of the Commission, FINRA, or any other governmental or regulatory authority; (iv) a banking moratorium has been declared by any state or federal authority; (v) in the judgment of the Representative, there has been, since the time of execution of this Agreement or since the respective dates as of which information is given in the Prospectus, any material adverse change in the assets, properties, condition, financial or otherwise, or in the results of operations, business affairs or business prospects of the Company and its subsidiaries considered as a whole, whether or not arising in the ordinary course of business; (vi) the representations and warranties given by the Company in this Agreement have ceased to be true and accurate in all material respects; or (vii) there has been a material breach by the Company of any of the covenants contained in this Agreement.

(b) If this Agreement is terminated pursuant to any of its provisions, the Company shall not be under any liability to any Underwriter, and no Underwriter shall be under any liability to the Company, except that (y) if this Agreement is terminated by the Representative or the Underwriters because of any failure, refusal or inability on the part of the Company to comply with the terms or to fulfill any of the conditions of this Agreement, the Company will reimburse the Underwriters for all out-of-pocket expenses (including the reasonable fees and disbursements of their counsel) incurred by them in connection with the proposed purchase and sale of the Securities or in contemplation of performing their obligations hereunder and (z) no Underwriter who shall have failed or refused to purchase the Securities agreed to be purchased by it under this Agreement, without some reason sufficient hereunder to justify cancellation or termination of its obligations under this Agreement, shall be relieved of liability to the Company or to the other Underwriters for damages occasioned by its failure or refusal.

8. Substitution of Underwriters. If any Underwriter shall default in its obligation to purchase on any Closing Date the Securities agreed to be purchased hereunder on such Closing Date, the Representative shall have the right, within thirty-six (36) hours thereafter, to make arrangements for one or more of the non-defaulting Underwriters, or any other underwriters, to purchase such Securities on the terms contained herein. If, however, the Representative shall not have completed such arrangements within such 36-hour period, then the Company shall be entitled to a further period of thirty-six (36) hours within which to procure another party or other parties satisfactory to the Underwriters to purchase such Securities on such terms. If, after giving effect to any arrangements for the purchase of the Securities of a defaulting Underwriter or Underwriters by the Representative and the Company as provided above, the aggregate number of Securities which remains unpurchased on the Closing Date does not exceed one-eleventh (1/11) of the aggregate number of all the Securities that all the Underwriters are obligated to purchase on such date, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of Securities which such Underwriter agreed to purchase hereunder at such date and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Securities which such Underwriter agreed to purchase hereunder) of the Securities of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default. In any such case, either the Representative or the Company shall have the right to postpone the Closing Date for a period of not more than seven (7) days in order to effect any necessary changes and arrangements (including any necessary amendments or supplements to the Registration Statement or Prospectus or any other documents), and the Company agrees to file promptly any amendments to the Registration Statement or the Prospectus which in the opinion of the Company and the Underwriters and their counsel may thereby be made necessary.

If, after giving effect to any arrangements for the purchase of the Securities of a defaulting Underwriter or Underwriters by the Representative and the Company as provided above, the aggregate number of such Securities which remains unpurchased exceeds 10% of the aggregate number of all the Securities to be purchased at such date, then this Agreement shall terminate, without liability on the part of any non-defaulting Underwriter to the Company, and without liability on the part of the Company, except as provided in Sections 4(b), 5, 6 and 7. The provisions of this Section 8 shall not in any way affect the liability of any defaulting Underwriter to the Company or the nondefaulting Underwriters arising out of such default. The term "Underwriter" as used in this Agreement shall include any person substituted under this Section 8 with like effect as if such person had originally been a party to this Agreement with respect to such Securities.

9. Miscellaneous. The respective agreements, representations, warranties, indemnities and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by or on behalf of them pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of any Underwriter or the Company or any of their respective officers, directors or controlling persons referred to in Sections 5 and 6 hereof, and shall survive delivery of and payment for the Securities. In addition, the provisions of Sections 4(b), 5, 6 and 7 shall survive the termination or cancellation of this Agreement.

This Agreement has been and is made for the benefit of the Underwriters, the Company, the indemnified persons and their respective successors and assigns, and, to the extent expressed herein, for the benefit of persons controlling any of the Underwriters, or the Company, and directors and officers of the Company, and their respective successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. The term "successors and assigns" shall not include any purchaser of Securities from any Underwriter merely because of such purchase.

All notices and communications hereunder shall be in writing and mailed or delivered or by telephone or facsimile if subsequently confirmed in writing, (a) if to the Representative, c/o Newbridge Securities Corporation, 1200 North Federal Highway, Suite 400, Boca Raton, FL 33432, Attention: Robert Abrams, General Counsel, and to Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., 919 Third Avenue, New York, New York 10022, Attention: Ivan K. Blumenthal, Esq., and (b) if to the Company, to its agent for service as such agent's address appears on the cover page of the Registration Statement with copies to Dorsey & Whitney LLP, 1095 West Pender Street, Suite 1070, Vancouver, BC V6E 2M6, Attention: Daniel M. Miller.

This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state.

[Remainder of Page Intentionally Left Blank. Signature Page Follows.]

This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

Please confirm that the foregoing correctly sets forth the agreement among us.

Very truly yours,

APTOSE BIOSCIENCES INC.

By: /s/ Fletcher Payne

Name: Fletcher Payne

Title: Senior Vice President and Chief Financial Officer

Confirmed:

NEWBRIDGE SECURITIES CORPORATION

By: /s/ Chad D. Champion

Name: Chad D. Champion

Title: Senior Managing Director

Acting severally on behalf of itself and as representative of the several Underwriters named in Schedule I annexed hereto.

[Signature Page to Underwriting Agreement]

SCHEDULE I

<u>Name</u>	<u>Number of Shares to Be Purchased</u>	<u>Number of Common Warrants to Be Purchased</u>
Newbridge Securities Corporation	4,912,280	4,912,280
Total	4,912,280	4,912,280

SCHEDULE II
Lock-up Signatories

Dr. William G. Rice
Dr. Rafael Bejar
Philippe Ledru
Fletcher Payne
Carol G. Ashe
Dr. Denis Burger
Dr. Erich Platzer
Dr. Mark D. Vincent
Warren Whitehead
Dr. Bernd R. Seizinger

SCHEDULE III
Issuer Free Writing Prospectuses

None.

SCHEDULE IV

Testing-the-Waters Communications

None.

APTOSE BIOSCIENCES INC.

WARRANT TO PURCHASE COMMON SHARES

Warrant No.: _____
 Number of Common Shares: _____
 Date of Issuance: _____, 202_ (“**Issuance Date**”)

Apotose Biosciences Inc., a company organized under the Canada Business Corporations Act (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, [HOLDER], the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, at any time or times on or after [_____] (the “**Initial Exercisability Date**”), but not after 11:59 p.m., New York time, on the Expiration Date, (as defined below), _____ (_____) fully paid non-assessable Common Shares (as defined below), subject to adjustment as provided herein (the “**Warrant Shares**”). Except as otherwise defined herein, capitalized terms in this Warrant to Purchase Common Shares (including any Warrants to Purchase Common Shares issued in exchange, transfer or replacement hereof, this “**Warrant**”), shall have the meanings set forth in Section 16. This Warrant is one of the Warrants to Purchase Common Shares issued pursuant to (i) that certain Underwriting Agreement, dated as of January 25, 2024 (the “**Subscription Date**”) by and between the Company and Newbridge Securities Corporation, (ii) the Company’s Registration Statement on Form S-1 (File number 333-275870) (the “**Registration Statement**”) and (iii) the Company’s prospectus dated as of _____, 2024 (the “**Final Prospectus**”).

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 1(f)), this Warrant may be exercised by the Holder at any time or times on or after the Initial Exercisability Date, in whole or in part, by delivery (whether via facsimile, electronic mail or otherwise) of a written notice, in the form attached hereto as Exhibit A (the “**Exercise Notice**”), of the Holder’s election to exercise this Warrant. Within one (1) Trading Day following the delivery of the Exercise Notice, the Holder shall make payment to the Company of an amount equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the “**Aggregate Exercise Price**”) in cash by wire transfer of immediately available funds or, if the provisions of Section 1(d) are applicable, by notifying the Company that this Warrant is being exercised pursuant to a Cashless Exercise (as defined in Section 1(d)). The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder, nor shall any ink-original signature or medallion guarantee (or other type of guarantee or notarization) with respect to any Exercise Notice be required. Execution and delivery of the Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares and the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within five (5) Trading Days of the date on which the final Exercise Notice has been delivered to the Company. On or before the first (1st) Trading Day following the date on which the Holder has delivered the applicable Exercise Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of confirmation of receipt of the Exercise Notice, in the form attached to the Exercise Notice, to the Holder and the Company’s transfer agent (the “**Transfer Agent**”). So long as the Holder delivers the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) and such information as the Company or Transfer Agent may reasonably request in order to effect the credit or issuance and dispatch, as applicable, set forth in clauses (X) or (Y), on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the earlier of (i) the second (2nd) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period, in each case following the date on which the Exercise Notice has been delivered to the Company, or, if the Holder does not deliver the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the first (1st) Trading Day following the date on which the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) is delivered (such earlier date, or if later, the earliest day on which the Company is required to deliver Warrant Shares pursuant to this Section 1(a), the “**Share Delivery Date**”), the Company shall (X) provided that the Transfer Agent is participating in The Depository Trust Company (“**DTC**”) Fast Automated Securities Transfer Program (“**FAST**”), credit such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, or (Y) if the Transfer Agent is not participating in FAST, issue and dispatch by overnight courier to the address as specified in the Exercise Notice, a certificate or other evidence of ownership of securities, registered in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise. The Company shall be responsible for all fees and expenses of the Transfer Agent and all fees and expenses with respect to the issuance of Warrant Shares via DTC, if any, including without limitation for same day processing. Upon delivery of the Exercise Notice and payment of the Aggregate Purchase Price (or notice of a Cashless Exercise, if applicable), the Holder shall be deemed for all corporate purposes to have become the holder of record and beneficial owner of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are credited to the Holder’s DTC account or the date of delivery of the certificates evidencing such Warrant Shares, as the case may be. If this Warrant is physically delivered to the Company in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Company shall as soon as practicable and in no event later than three (3) Trading Days after any exercise and at its own expense, issue and deliver to the Holder (or its designee) a new Warrant (in accordance with Section 7(d)) representing the right to purchase the number of Warrant Shares issuable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. No fractional Warrant Shares are to be issued upon the exercise of this Warrant, but rather the number of Warrant Shares to be issued shall be rounded to the nearest whole number. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent) which may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant. The Company’s obligations to issue and deliver Warrant Shares in accordance with the terms and subject to the conditions hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination; provided, however, that the Company shall not be required to deliver Warrant Shares with respect to an exercise prior to the Holder’s delivery of the Aggregate Exercise Price (or notice of a Cashless Exercise) with respect to such exercise.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$[] per share, subject to adjustment as provided herein.

(c) Company’s Failure to Timely Deliver Securities. If either (I) the Company shall fail, other than due to any action or inaction on the part of the Holder, to issue to the Holder on or prior to the applicable Share Delivery Date, if (x) the Transfer Agent is not participating in the FAST, a certificate of other evidence of ownership for the number of Warrant Shares to which the Holder is entitled and register such Warrant Shares on the Company’s share register or (y) the Transfer Agent is participating in the FAST, to credit the Holder’s balance account with DTC, for such number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise of this Warrant or (II) a registration statement (which may be the Registration Statement) covering the issuance or resale of the Warrant Shares that are the subject of the Exercise Notice (the “**Exercise Notice Warrant Shares**”) is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares and (x) the Company fails to promptly, but in no event later than one (1) Business Day after such registration statement becomes unavailable, to so notify the Holder and (y) the Company is unable to deliver the Exercise Notice Warrant Shares electronically without any restrictive legend by crediting such aggregate number of Exercise Notice Warrant Shares to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system (the event described in the immediately foregoing clause (II) is hereinafter referred to as a “**Notice Failure**” and together with the event described in clause (I) above, an “**Exercise Failure**”), then, in addition to all other remedies available to the Holder, if on or prior to the applicable Share Delivery Date either (I) if the Transfer Agent is not participating in FAST, the Company shall fail to issue and deliver a certificate or other evidence of ownership of securities to the Holder and register such Warrant Shares on the Company’s share register or, if the Transfer Agent is participating in the FAST, credit the Holder’s balance account with DTC for the number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise hereunder or pursuant to the Company’s obligation pursuant to clause (ii) below or (II) if a Notice Failure occurs, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder’s brokerage firm otherwise purchases, Common Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “**Buy-In**”), then the Company shall, within five (5) Trading Days after the Holder’s request, (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the Common Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Warrant Shares that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Shares having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrant Shares with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder’s right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver Warrant Shares upon exercise of the Warrant as required pursuant to the terms hereof. The Company’s current transfer agent participates in FAST. In the event that the Company changes transfer agents while this Warrant is outstanding, the Company shall select a transfer agent that participates in FAST. While this Warrant is outstanding, the Company shall cause its transfer agent to participate in FAST with respect to this Warrant. In addition to the foregoing rights, (i) if the Company fails to deliver the applicable number of Warrant Shares upon an exercise pursuant to Section 1 by the applicable Share Delivery Date, then the Holder shall have the right to rescind such exercise in whole or in part and retain and/or have the Company return, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an exercise shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and (ii) if a registration statement (which may be the Registration Statement) covering the issuance or resale of the Warrant Shares that are subject to an Exercise Notice is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares and the Holder has submitted an Exercise Notice prior to receiving notice of the non-availability of such registration statement and the Company has not already delivered the Warrant Shares underlying such Exercise Notice electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, the Holder shall have the option, by delivery of notice to the Company, to (x) rescind such Exercise Notice in whole or in part and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an Exercise Notice shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and/or (y) switch some or all of such Exercise Notice from a cash exercise to a Cashless Exercise. In addition to the foregoing, if due solely to the action or inaction of the Company, the Company fails to deliver to the Holder the Warrant Shares subject to an Exercise Notice by the third Trading Day following the Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the Weighted Average Price of the Common Shares on the date of the applicable Exercise Notice), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise.

(d) Cashless Exercise. Notwithstanding anything contained herein to the contrary, if a registration statement (which may be the Registration Statement) covering the issuance or resale of the Exercise Notice Warrant Shares is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares, the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the “Net Number” of Common Shares determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

- A= the total number of shares with respect to which this Warrant is then being exercised.
- B= as applicable: (i) the Closing Sale Price of the Common Shares on the Trading Day immediately preceding the date of the applicable Exercise Notice if such Exercise Notice is (1) both executed and delivered pursuant to Section 1(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 1(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the Weighted Average Price on the Trading Day immediately preceding the date of the applicable Exercise Notice or (z) the Bid Price of the Common Shares as of the time of the Holder’s execution of the applicable Exercise Notice if such Exercise Notice is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 1(a) hereof or (iii) the Closing Sale Price of the Common Shares on the date of the applicable Exercise Notice if the date of such Exercise Notice is a Trading Day and such Exercise Notice is both executed and delivered pursuant to Section 1(a) hereof after the close of “regular trading hours” on such Trading Day.
- C= the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

If Warrant Shares are issued in such a cashless exercise, the Company acknowledges and agrees that in accordance with Section 3(a)(9) of the Securities Act of 1933, as amended, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 1(d). Without limiting the rights of a Holder to receive Warrant Shares on a “cashless exercise,” and to receive the cash payments contemplated pursuant to Sections 1(c) and 4(b), in no event will the Company be required to net cash settle a Warrant exercise.

(e) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 11.

(f) Beneficial Ownership. Notwithstanding anything to the contrary contained herein, the Company shall not effect the exercise of any portion of this Warrant, and the Holder shall not have the right to exercise any portion of this Warrant, pursuant to the terms and conditions of this Warrant and any such exercise shall be null and void and treated as if never made, to the extent that after giving effect to such exercise, the Holder together with the other Attribution Parties collectively would beneficially own in excess of [4.99][9.99]% (the “**Maximum Percentage**”) of the number of Common Shares outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of Common Shares beneficially owned by the Holder and the other Attribution Parties shall include the number of Common Shares held by the Holder and all other Attribution Parties plus the number of Warrant Shares issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude the number of Warrant Shares which would be issuable upon (A) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any convertible notes or convertible preferred shares or warrants, including the other Warrants as well as pre-funded warrants to purchase common shares issued on the Subscription Date, as applicable) beneficially owned by the Holder or any other Attribution Party subject to a limitation on conversion or exercise analogous to the limitation contained in this Section 1(f). For purposes of this Section 1(f), beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the “**1934 Act**”). For purposes of this Warrant, in determining the number of outstanding Warrant Shares the Holder may acquire upon the exercise of this Warrant without exceeding the Maximum Percentage, the Holder may rely on the number of outstanding Common Shares as reflected in (x) the Company’s most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q and Current Reports on Form 8-K or other public filing with the Securities and Exchange Commission (the “**SEC**”), as the case may be, (y) a more recent public announcement by the Company or (z) any other written notice by the Company or the Transfer Agent setting forth the number of Common Shares outstanding (the “**Reported Outstanding Share Number**”). If the Company receives an Exercise Notice from the Holder at a time when the actual number of outstanding Common Shares is less than the Reported Outstanding Share Number, the Company shall (i) notify the Holder in writing of the number of Common Shares then outstanding and, to the extent that such Exercise Notice would otherwise cause the Holder’s beneficial ownership, as determined pursuant to this Section 1(f), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of Warrant Shares to be purchased pursuant to such Exercise Notice (the number of shares by which such purchase is reduced, the “**Reduction Shares**”) and (ii) as soon as reasonably practicable, the Company shall return to the Holder any exercise price paid by the Holder for the Reduction Shares. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing or by electronic mail to the Holder the number of Common Shares then outstanding. In any case, the number of outstanding Common Shares shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder and any other Attribution Party since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of Warrant Shares to the Holder upon exercise of this Warrant results in the Holder and the other Attribution Parties being deemed to beneficially own, in the aggregate, more than the Maximum Percentage of the number of outstanding Common Shares (as determined under Section 13(d) of the 1934 Act), the number of shares so issued by which the Holder’s and the other Attribution Parties’ aggregate beneficial ownership exceeds the Maximum Percentage (the “**Excess Shares**”) shall be deemed null and void and shall be cancelled ab initio, and the Holder shall not have the power to vote or to transfer the Excess Shares. As soon as reasonably practicable after the issuance of the Excess Shares has been deemed null and void, the Company shall return to the Holder the exercise price paid by the Holder for the Excess Shares. Upon delivery of a written notice to the Company, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage and, in the case of an increase, not in excess of 9.99%, as specified in such notice; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Holder and the other Attribution Parties and not to any other holder of Warrants that is not an Attribution Party of the Holder. For purposes of clarity, the Common Shares issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the 1934 Act. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 1(f) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 1(f) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived and shall apply to a successor holder of this Warrant.

(g) Required Reserve Amount. So long as this Warrant remains outstanding, the Company shall at all times keep reserved for issuance under this Warrant a number of Common Shares at least equal to 100% of the maximum number of Common Shares as shall be necessary to satisfy the Company's obligation to issue Common Shares under the Warrants then outstanding (without regard to any limitations on exercise) (the "**Required Reserve Amount**"); provided that at no time shall the number of Common Shares reserved pursuant to this Section 1(g) be reduced other than in connection with any exercise of Warrants or such other event covered by Section 2(c) below.

(h) Insufficient Authorized Shares. If at any time while this Warrant remains outstanding the Company does not have a sufficient number of authorized and unreserved Common Shares to satisfy its obligation to reserve for issuance the Required Reserve Amount (an "**Authorized Share Failure**"), then the Company shall promptly take all action reasonably necessary to increase the Company's authorized Common Shares to an amount sufficient to allow the Company to reserve the Required Reserve Amount for this Warrant then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than one hundred and twenty (120) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized Common Shares. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders' approval of such increase in authorized Common Shares and to cause its board of directors to recommend to the stockholders that they approve such proposal. Notwithstanding the foregoing, if at any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the its issued and outstanding Common Shares to approve the increase in the number of authorized Common Shares, the Company may satisfy this obligation by obtaining such consent and submitting for filing with the SEC an Information Statement on Schedule 14C.

(i) Withholding Taxes. Applicable withholding taxes (including backup withholding) may be withheld from payments and deemed payments on or with respect to this Warrant. In addition, if any withholding taxes (including backup withholding) are paid on behalf of Holder, then those withholding taxes may be set off against payments of cash or the delivery of Warrant Shares, if any, in respect of this Warrant (or any payments on Common Shares) or sales proceeds received by, or other funds or assets of, Holder.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

(a) Intentionally omitted.

(b) Voluntary Adjustment By Company. Subject to compliance with applicable securities laws and rules of the exchanges on which the Common Shares are listed, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

(c) Adjustment Upon Subdivision or Combination of Common Shares. If the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) its outstanding Common Shares into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any time on or after the Subscription Date combines (by combination, reverse stock split or otherwise) its outstanding Common Shares into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 2(c) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(d) Other Events. If any event occurs of the type contemplated by the provisions of Sections 2(b) and 2(c), but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights or other rights with equity features to all holders of Common Shares), then the Company's Board of Directors will make an appropriate adjustment in the Exercise Price and the number of Warrant Shares, as mutually determined by the Company's Board of Directors and the Required Holders, so as to protect the rights of the Holder; provided that no such adjustment pursuant to this Section 2(d) will increase the Exercise Price or decrease the number of Warrant Shares as otherwise determined pursuant to Sections 2(b) and 2(c).

3. **RIGHTS UPON DISTRIBUTION OF ASSETS.** In addition to any adjustments pursuant to Section 2 above, if, on or after the Subscription Date and on or prior to the Expiration Date, the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Common Shares, by way of return of capital or otherwise (including, without limitation, any distribution of cash, securities, property, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), then, in each such case, upon exercise of this Warrant that occurs after the record date fixed for determination of stockholders entitled to receive such Distribution, the Holder shall be entitled, in addition to the Warrant Shares otherwise issuable upon such exercise, the Distribution that such Holder would have been entitled to receive in respect of such number of Warrant Shares had the Holder been the record holder of such Warrant Shares immediately prior to such record date without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage (provided, however, that to the extent that such Distribution would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to such Distribution to such extent (and shall not be entitled to beneficial ownership of such Common Shares as a result of such Distribution (and beneficial ownership) to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such Distribution (and any Distributions declared or made on such initial Distribution or on any subsequent Distribution held similarly in abeyance) to the same extent as if there had been no such limitation).

4. **PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.**

(a) **Purchase Rights.** In addition to any adjustments pursuant to Section 2 above, if at any time on or after the Subscription Date and on or prior to the Expiration Date the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of Common Shares (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Common Shares acquirable upon complete exercise of this Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Common Shares are to be determined for the grant, issuance or sale of such Purchase Rights (provided, however, that to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Purchase Right to such extent (and shall not be entitled to beneficial ownership of such Common Shares as a result of such Purchase Right (and beneficial ownership) to such extent) and such Purchase Right to such extent shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such right (and any Purchase Right granted, issued or sold on such initial Purchase Right or on any subsequent Purchase Right to be held similarly in abeyance) to the same extent as if there had been no such limitation).

(b) **Fundamental Transaction.** The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 4(b), including agreements to deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant, including, without limitation, which is exercisable for a corresponding number of shares of capital stock equivalent to the Common Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Common Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such adjustments to the number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction). Upon the consummation of each Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for the Company (so that from and after the date of the applicable Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of each Fundamental Transaction, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction, in lieu of the Common Shares (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of this Warrant prior to the applicable Fundamental Transaction, such shares of common stock (or its equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant), as adjusted in accordance with the provisions of this Warrant. Notwithstanding the foregoing, and without limiting Section 1(f) hereof, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 4(b) to permit the Fundamental Transaction without the assumption of this Warrant. In addition to and not in substitution for any other rights hereunder, prior to the consummation of each Fundamental Transaction pursuant to which holders of Common Shares are entitled to receive securities or other assets with respect to or in exchange for Common Shares (a "**Corporate Event**"), the Company shall make appropriate provision to insure that the Holder will thereafter have the right to receive upon an exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction but prior to the Expiration Date, in lieu of the Common Shares (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) (collectively, the "**Corporate Event Consideration**") which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant). The provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Holder. The provisions of this Section 4(b) shall apply similarly and equally to successive Fundamental Transactions and Corporate Events. Notwithstanding the foregoing, in the event of a Change of Control, at the request of the Holder delivered before the 30th day after such Change of Control, the Company (or the Successor Entity) shall purchase this Warrant from the Holder by paying to the Holder, within five (5) Business Days after such request (or, if later, on the effective date of the Change of Control), an amount equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the effective date of such Change of Control, payable in cash; provided, however, that, if the Change of Control is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity, as of the date of consummation of such Change of Control, the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Shares of the Company in connection with the Change of Control, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Shares are given the choice to receive from among alternative forms of consideration in connection with the Change of Control; provided, further, that if holders of Common Shares are not offered or paid any consideration in such Change of Control, such holders of Common Shares will be deemed to have received common stock of the Successor Entity (which entity may be the Company following such Change of Control) in such Change of Control.

5. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation or Bylaws, or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issuance or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times in good faith carry out all of the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Shares receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Shares upon the exercise of this Warrant, and (iii) shall, so long as any of the Warrants are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Shares, solely for the purpose of effecting the exercise of the Warrants, the number of shares of Common Shares as shall from time to time be necessary to effect the exercise of the Warrants then outstanding (without regard to any limitations on exercise).

6. WARRANT HOLDER NOT DEEMED A SHAREHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of Common Shares of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a shareholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of securities, reclassification of capital, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a shareholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 6, the Company shall provide the Holder with copies of the same notices and other information given to the shareholders of the Company generally, contemporaneously with the giving thereof to the shareholders; provided, that, the Company shall not be obligated to provide such copies under this Section 6 if such notice and other information given to shareholders of the Company is publicly available on the Securities and Exchange Commission's Electronic Data Gathering, Analysis, and Retrieval system.

7. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form (but without the obligation to post a bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 7(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender.

(d) Issuance of New Warrants. Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant (i) shall be of like tenor with this Warrant, (ii) shall represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(a) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of Common Shares underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date, and (iv) shall have the same rights and conditions as this Warrant.

8. NOTICES. Whenever notice is required to be given under this Warrant, including, without limitation, an Exercise Notice, unless otherwise provided herein, such notice shall be given in writing, (i) if delivered (a) from within the domestic United States, by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, electronic mail or by facsimile or (b) from outside the United States, by International Federal Express, electronic mail or facsimile, and (ii) will be deemed given (A) if delivered by first-class registered or certified mail domestic, three (3) Business Days after so mailed, (B) if delivered by nationally recognized overnight carrier, one (1) Business Day after so mailed, (C) if delivered by International Federal Express, two (2) Business Days after so mailed and (D) at the time of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 prior to 5:00 p.m. (New York time) on a Trading Day, (E) the next Trading Day after the date of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 on a day that is not a Trading Day or later than 5:00 p.m. (New York time) on any Trading Day and (F) if delivered by facsimile, upon electronic confirmation of delivery of such facsimile, and will be delivered and addressed as follows:

- (i) if to the Company, to:

Aptose Biosciences Inc.
251 Consumers Road, Suite 1105
Toronto, Ontario
Canada M2J 4R3
Attention: _____
Email: _____

With a copy (which will not constitute notice) to:

Dorsey & Whitney LLP
1095 West Pender Street, Suite 1070
Vancouver, BC V6E 2M6
Facsimile: () _____
Attention: Daniel M. Miller
Email: miller.dan@dorsey.com

- (ii) if to the Holder, at such address or other contact information delivered by the Holder to Company or as is on the books and records of the Company.

The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant, including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) no later than three (3) Business Days following any adjustment of the Exercise Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) of the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the Common Shares, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase shares, warrants, securities or other property to holders of Common Shares or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, in each case at the same time as it provides such notice to the holders of Common Shares.

9. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant may be amended or waived and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder.

10. GOVERNING LAW; JURISDICTION; JURY TRIAL. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. The Company hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. The Company hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to the Company at the address set forth in Section 8(i) above or such other address as the Company subsequently delivers to the Holder and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed or operate to preclude the Holder from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to the Holder, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holder. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. **THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY WAIVE ANY RIGHT THEY MAY HAVE, AND AGREE NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

11. DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via facsimile or electronic mail within two (2) Business Days of receipt of the Exercise Notice or other event giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within three (3) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via facsimile or electronic mail (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten (10) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

12. REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and any other Transaction Documents, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

13. TRANSFER. This Warrant and the Warrant Shares may be offered for sale, sold, transferred, pledged or assigned without the consent of the Company.

14. SEVERABILITY; CONSTRUCTION; HEADINGS. If any provision of this Warrant is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Warrant so long as this Warrant as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s). This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

15. **DISCLOSURE.** Upon receipt or delivery by the Company of any notice in accordance with the terms of this Warrant, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, nonpublic information relating to the Company or its subsidiaries, the Company shall publicly disclose such material, nonpublic information on a Current Report on Form 8-K or otherwise. In the event that the Company believes that a notice by the Company contains material, nonpublic information relating to the Company or its subsidiaries, the Company so shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, the Holder shall be allowed to presume that all matters relating to such notice do not constitute material, nonpublic information relating to the Company or its subsidiaries.

16. **CERTAIN DEFINITIONS.** For purposes of this Warrant, the following terms shall have the following meanings:

(a) **“Affiliate”** means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that “control” of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(b) **“Attribution Parties”** means, collectively, the following Persons and entities: (i) any investment vehicle, including, any funds, feeder funds or managed accounts, currently, or from time to time after the Subscription Date, directly or indirectly managed or advised by the Holder’s investment manager or any of its Affiliates or principals, (ii) any direct or indirect Affiliates of the Holder or any of the foregoing, (iii) any Person acting or who could be deemed to be acting as a Group together with the Holder or any of the foregoing and (iv) any other Persons whose beneficial ownership of the Company’s Common Shares would or could be aggregated with the Holder’s and the other Attribution Parties for purposes of Section 13(d) of the 1934 Act. For clarity, the purpose of the foregoing is to subject collectively the Holder and all other Attribution Parties to the Maximum Percentage.

(c) **“Bid Price”** means, for any security as of the particular time of determination, the bid price for such security on the Principal Market as reported by Bloomberg as of such time of determination, or, if the Principal Market is not the principal securities exchange or trading market for such security, the bid price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg as of such time of determination, or if the foregoing does not apply, the bid price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg as of such time of determination, or, if no bid price is reported for such security by Bloomberg as of such time of determination, the average of the bid prices of any market makers for such security as reported on the Pink Open Market as of such time of determination. If the Bid Price cannot be calculated for a security as of the particular time of determination on any of the foregoing bases, the Bid Price of such security as of such time of determination shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 11. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.

(d) **“Black Scholes Value”** means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the “OV” function on Bloomberg determined as of the day immediately following the first public announcement of the applicable Change of Control, or, if the Change of Control is not publicly announced, the date the Change of Control is consummated, for pricing purposes and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of such date of request, (ii) an expected volatility equal to 100% (iii) the underlying price per share used in such calculation shall be the greater of (a) the highest Weighted Average Price during the five (5) Trading Days prior to the closing of the Change of Control and (b) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Change of Control, (iv) a zero cost of borrow and (v) a 360 day annualization factor.

(e) **“Bloomberg”** means Bloomberg Financial Markets.

(f) **“Business Day”** means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.

(g) **“Change of Control”** means any Fundamental Transaction other than (i) any reorganization, recapitalization or reclassification of the Common Shares in which holders of the Company’s voting power immediately prior to such reorganization, recapitalization or reclassification continue after such reorganization, recapitalization or reclassification to hold publicly traded securities and, directly or indirectly, are, in all material respect, the holders of the voting power of the surviving entity (or entities with the authority or voting power to elect the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities) after such reorganization, recapitalization or reclassification, (ii) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company or (iii) a merger in connection with a bona fide acquisition by the Company of any Person in which (x) the gross consideration paid, directly or indirectly, by the Company in such acquisition is not greater than 20% of the Company’s market capitalization as calculated on the date of the consummation of such merger and (y) such merger does not contemplate a change to the identity of a majority of the board of directors of the Company. Notwithstanding anything herein to the contrary, any transaction or series of transaction that, directly or indirectly, results in the Company or the Successor Entity not having Common Shares or common stock, as applicable, registered under the 1934 Act and listed on an Eligible Market shall be deemed a Change of Control.

(h) **“Closing Bid Price”** and **“Closing Sale Price”** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or the last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the OTC Link or on the Pink Open Market. If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price, as the case may be, of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

(i) **“Common Shares”** means (i) common shares in the capital of the Company, no par value, and (ii) any capital stock into which such Common Shares shall have been changed or any capital stock resulting from a reclassification of such Common Shares.

(j) **“Convertible Securities”** means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for Common Shares.

(k) **“Eligible Market”** means The Nasdaq Capital Market, the NYSE American LLC, The Nasdaq Global Select Market, The Nasdaq Global Market or The New York Stock Exchange, Inc.

(l) **“Expiration Date”** means the date sixty (60) months after the Initial Exercisability Date or, if such date falls on a day other than a Business Day or on which trading does not take place on the Principal Market (a **“Holiday”**), the next day that is not a Holiday.

(m) **“Fundamental Transaction”** means a transaction in which (A) the Company, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, (i) consolidates or merges with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (ii) sells, assigns, transfers, conveys or otherwise disposes of all or substantially all of the properties or assets of the Company or any of its “significant subsidiaries” (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (iii) makes, or allows one or more Subject Entities to make, or allow the Company to be subject to or have its Common Shares be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of at least either (x) 50% of the outstanding Common Shares, (y) 50% of the outstanding Common Shares calculated as if any Common Shares held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (z) such number of Common Shares such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding Common Shares, or (iv) consummates a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with one or more Subject Entities whereby all such Subject Entities, individually or in the aggregate, acquire, either (x) at least 50% of the outstanding Common Shares, (y) at least 50% of the outstanding Common Shares calculated as if any Common Shares held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (z) such number of Common Shares such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding Common Shares, or (v) reorganizes, recapitalizes or reclassifies its Common Shares, (B) the Company, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, allows any Subject Entity individually or the Subject Entities in the aggregate to be or become the “beneficial owner” (as defined in Rule 13d-3 under the 1934 Act), directly or indirectly, whether through acquisition, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding Common Shares, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (x) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Shares, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Shares calculated as if any Common Shares held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding Common Shares or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other shareholders of the Company to surrender their Common Shares without approval of the shareholders of the Company or (C) directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance of or the entering into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction.

(n) **“Group”** means a “group” as that term is used in Section 13(d) of the 1934 Act and as defined in Rule 13d-5 thereunder.

(o) **“Options”** means any rights, warrants or options to subscribe for or purchase Common Shares or Convertible Securities, but excludes, for the avoidance of doubt, any rights, warrants or options to subscribe for or purchase Common Shares or Convertible Securities issued pursuant to an incentive award plan of the Company.

(p) **“Person”** means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(q) **“Principal Market”** means The Nasdaq Global Market.

(r) **“Required Holders”** means the holders of the Warrants representing at least a majority of the Common Shares underlying the Warrants then outstanding.

(s) **“Standard Settlement Period”** means the standard settlement period, expressed in a number of Trading Days, for the Company’s primary trading market or quotation system with respect to the Common Shares that is in effect on the date of receipt of an applicable Exercise Notice.

(t) **“Subject Entity”** means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.

(u) **“Successor Entity”** means one or more Person or Persons formed by, resulting from or surviving any Fundamental Transaction or Change of Control or one or more Person or Persons with which such Fundamental Transaction or Change of Control shall have been entered into.

(v) **“Trading Day”** means any day on which the Common Shares are traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Shares, then on the principal securities exchange or securities market on which the Common Shares are then traded.

(w) **“Transaction Documents”** means any agreement entered into by and between the Company and the Holder, as applicable.

(x) **“Weighted Average Price”** means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York time (or such other time as the Principal Market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as the Principal Market publicly announces is the official close of trading), as reported by Bloomberg through its “Volume at Price” function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York time (or such other time as such market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as such market publicly announces is the official close of trading), as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest Closing Bid Price and the lowest closing ask price of any of the market makers for such security as reported in the OTC Link or on the Pink Open Market. If the Weighted Average Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11 with the term “Weighted Average Price” being substituted for the term “Exercise Price.” All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Common Shares to be duly executed as of the Issuance Date set out above.

APTOSE BIOSCIENCES INC.

By: _____

Name:

Title:

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS
WARRANT TO PURCHASE COMMON SHARES

APTOSE BIOSCIENCES INC.

The undersigned holder hereby exercises the right to purchase _____ common shares ("**Warrant Shares**") of Aptose Biosciences Inc., a company organized under the Canada Business Corporations Act (the "**Company**"), evidenced by the attached Warrant to Purchase Common Shares (the "**Warrant**"). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The Holder intends that payment of the Exercise Price shall be made as:

_____ a "Cash Exercise" with respect to _____ Warrant Shares; and/or

_____ a "Cashless Exercise" with respect to _____ Warrant Shares.

2. Payment of Exercise Price. In the event that the holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the holder shall pay the Aggregate Exercise Price in the sum of \$_____ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder _____ Warrant Shares in accordance with the terms of the Warrant.

Date: _____, _____

Name of Registered Holder

By: _____
Name:
Title:

Form of Lock-Up Agreement

____, 2024

Newbridge Securities Corporation
1200 North Federal Highway
Boca Raton, FL 33432

Re: Proposed Offering by Aptose Biosciences Inc.

Ladies and Gentlemen:

This letter agreement ("this Agreement") is being delivered to you in connection with the proposed offering (the "Offering") by Aptose Biosciences Inc., a corporation organized and existing under the laws of Canada (the "Company"), of its securities (the "Securities"), including common shares, no par value (the "Common Shares"), pursuant to the proposed Underwriting Agreement (the "Underwriting Agreement") to be entered into between the Company and Newbridge Securities Corporation (including its successors and assigns, the "Underwriter").

In order to induce the Underwriter to enter into the Underwriting Agreement, and in light of the benefits that the Offering will confer upon the undersigned in his, her or its capacity as a securityholder and/or an officer, director or employee of the Company, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with the Underwriter, that, during the period beginning on the date hereof through and including the date that is the 90th day after the date of the Underwriting Agreement (the "Lock-Up Period"), the undersigned will not, without the prior written consent of the Underwriter, directly or indirectly, (i) offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of (or announce the intention to otherwise dispose of), any Common Shares (including, without limitation, Common Shares which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations promulgated under the Securities Act of 1933, as amended (such shares, the "Beneficially Owned Shares" and such act the "Securities Act")) or securities convertible into or exercisable or exchangeable for Common Shares, (ii) enter into any swap, hedge or similar agreement or arrangement that transfers to another, in whole or in part, the economic consequences of ownership of the Beneficially Owned Shares or securities convertible into or exercisable or exchangeable for Common Shares, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, or (iii) engage in any short selling of the Common Shares or securities convertible into or exercisable or exchangeable for Common Shares.

The restrictions set forth in the immediately preceding paragraph shall not apply to:

- (1) transactions relating to Common Shares acquired in open market transactions after the completion of the Offering of Securities acquired in the Offering, *provided* that no public announcement or filing under Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") shall be required or voluntarily made in connection therewith,

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- (2) if the undersigned is a natural person, any transfers made by the undersigned (a) as a bona fide gift to any member of the immediate family (as defined below) of the undersigned or to a trust the beneficiaries of which are exclusively the undersigned or members of the undersigned's immediate family, (b) by will or intestate succession upon the death of the undersigned or (c) as a bona fide gift to a charity or educational institution,
 - (3) if the undersigned is a corporation, partnership, limited liability company or other business entity, any transfers to any shareholder, partner or member of, or owner of a similar equity interest in, the undersigned, as the case may be, if, in any such case, such transfer is not for value,
 - (4) if the undersigned is a corporation, partnership, limited liability company or other business entity, any transfer made by the undersigned (a) in connection with the sale or other bona fide transfer in a single transaction of all or substantially all of the undersigned's capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the undersigned's assets, in any such case not undertaken for the purpose of avoiding the restrictions imposed by this agreement or (b) to another corporation, partnership, limited liability company or other business entity so long as the transferee is an affiliate (as defined below) of the undersigned and such transfer is not for value,
 - (5) the exercise of an option to purchase Common Shares granted under an equity incentive plan or equity purchase plan of the Company described (including through incorporation by reference) in the prospectus relating to the Offering, the exercise or conversion of a warrant or other convertible security to purchase Common Shares described (including through incorporation by reference) in the prospectus relating to the Offering, provided that the underlying Common Shares continue to be subject to the restrictions set forth herein, or the receipt of restricted stock awards from the Company and disposition of shares of Common Shares to the Company pursuant to the terms of any such plan or awards to satisfy tax withholding obligations or the payment of taxes or any exercise price due with respect to the vesting of restricted stock awards or the cashless exercise of stock options or upon termination of employment with the Company,
 - (6) sales to the Company in connection with the vesting or settlement of restricted stock units or the "net" or "cashless" exercise of options, warrants or other rights to purchase shares of Common Shares for purposes of exercising such options, warrants or rights, including any transfer for the payment of tax withholdings or remittance payments due as a result of the vesting, settlement, or exercise of such restricted stock units, options, warrants or other rights, so long as any such "net" or "cashless" exercise is effected solely by the surrender of outstanding options or warrants (or the Common Shares issuable upon the exercise thereof) to the Company and the Company's cancellation of all or a portion thereof to pay the exercise price and/or withholding tax and remittance obligations,

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- (7) sales to the Company pursuant to (A) any contractual arrangement in effect on the date of the Underwriting Agreement that provides for the repurchase of the undersigned's securities by the Company at the lower of cost or fair market value or (B) a right of first refusal that the Company has with respect to transfers of such securities, in each case upon termination of employment or service of the undersigned with the Company,
 - (8) by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement or any other court order or order of a regulatory agency,
 - (9) in connection with a transfer not involving a change in beneficial ownership, and
 - (10) the entry into a trading plan pursuant to Rule 10b5-1 (a "Rule 10b5-1 Plan") under the Exchange Act, so long as such plan is not publicly announced and no sales are made pursuant to such plan during the Lock-Up Period,

provided, however, (A) that in the case of any transfer described in clause (2), (3), (4), (8), or (9) above, it shall be a condition to the transfer that the transferee executes and delivers to the Underwriter, not later than one business day prior to such transfer, a written agreement, in substantially the form of this agreement (it being understood that any references to "immediate family" in the agreement executed by such transferee shall expressly refer only to the immediate family of the undersigned and not to the immediate family of the transferee) and otherwise satisfactory in form and substance to the Underwriter, and (B) that in the case of any transfer described in clause (2), (3), (4), (5), (6), (7), (8), or (9) above, it shall be a condition to the transfer that if the undersigned is required to file a report under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of Common Shares or Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Shares or Beneficially Owned Shares during the Lock-Up Period, the undersigned shall include a statement in such report to the effect that, in the case of any transfer pursuant to clause (2) above, such transfer is being made as a gift or by will or intestate succession or, in the case of any transfer pursuant to clause (3) above, such transfer is being made to a shareholder, partner or member of, or owner of a similar equity interest in, the undersigned and is not a transfer for value or, in the case of any transfer pursuant to clause (4) above, such transfer is being made either (a) in connection with the sale or other bona fide transfer in a single transaction of all or substantially all of the undersigned's capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the undersigned's assets or (b) to another corporation, partnership, limited liability company or other business entity that is an affiliate of the undersigned and such transfer is not for value or, in the case of any transfer pursuant to clause (5) above, such transfer is being made to the Company to satisfy tax withholding obligations or the payment of taxes or any exercise price due with respect to the vesting of restricted stock awards or the cashless exercise of stock options or upon termination of employment with the Company, in each case, as applicable, or, in the case of any transfer pursuant to clause (6) above, such transfer is being made for the payment of tax withholdings or remittance payments or, in the case of any transfer pursuant to clause (7) above, such transfer is being made under terms of the Company's repurchase rights or in connection with the termination of the undersigned or, in the case of any transfer pursuant to clause (8) above, such transfer is being made by operation of law to a qualified domestic order or in connection with a divorce settlement or any other court order or order of a regulatory agency or, in the case of any transfer pursuant to clause (9) above, such transfer is being made in connection with a transfer not involving a change in beneficial ownership. For purposes of this paragraph, "immediate family" shall mean a spouse, child, grandchild or other lineal descendant (including by adoption), father, mother, brother or sister of the undersigned; and "affiliate" shall have the meaning set forth in Rule 405 under the Securities Act.

For avoidance of doubt, nothing in this Agreement prohibits (A) the undersigned from exercising any options or warrants to purchase Common Shares (which exercises may be effected on a cashless basis to the extent the instruments representing such options or warrants permit exercises on a cashless basis), it being understood that any Common Shares issued upon such exercises will be subject to the restrictions of this Agreement or (B) the surrender or forfeiture of securities in partial or full settlement of any income, employment or social tax withholding and remittance obligations of the undersigned or the employer of the undersigned in connection with the vesting or exercise of any equity award outstanding on the date of the Underwriting Agreement granted pursuant to the Company's equity plans described in the Prospectus, and provided, however, that no public announcement or filing is voluntarily made regarding such exercise during the Lock-Up Period and provided that if the undersigned is required to file a report under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of such options or warrants during the Lock-Up Period, the undersigned shall include a statement in such report to the effect that the disposition relates to the exercise of an option or warrant, as applicable, and that the shares of Common Shares received upon exercise are subject to the restrictions of this Agreement.

In order to enable this covenant to be enforced, the undersigned hereby consents to the placing of legends or stop transfer instructions with the Company's transfer agent with respect to any Common Shares or securities convertible into or exercisable or exchangeable for Common Shares. The undersigned further agrees that (i) it will not, during the Lock-Up Period, make any demand or request for or exercise any right with respect to the registration under the Securities Act of any Common Shares or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Shares or other Beneficially Owned Shares, and (ii) the Company may, with respect to any Common Shares or other Beneficially Owned Shares or any securities convertible into or exercisable or exchangeable for Common Shares or other Beneficially Owned Shares owned or held (of record or beneficially) by the undersigned, cause the transfer agent or other registrar to enter stop transfer instructions and implement stop transfer procedures with respect to such securities during the Lock-Up Period.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this agreement and that this agreement has been duly authorized (if the undersigned is not a natural person), executed and delivered by the undersigned and is a valid and binding agreement of the undersigned. This agreement and all authority herein conferred are irrevocable and shall survive the death or incapacity of the undersigned (if a natural person) and shall be binding upon the heirs, personal representatives, successors and assigns of the undersigned.

This agreement shall automatically terminate and the undersigned shall be released from all obligations under this agreement upon the earliest to occur, if any, of: (a) either the Company, on the one hand, or the Underwriter, on the other hand, advising the other in writing, prior to the execution of the Underwriting Agreement, that they have determined not to proceed with the Offering, or (b) termination of the Underwriting Agreement (other than the provisions thereof which survive termination) prior to the closing of the Offering.

The undersigned acknowledges and agrees that whether or not any underwriting of Securities actually occurs depends on a number of factors, including market conditions.

[signature page follows]

Very truly yours,

(Name of Stockholder - Please Print)

(Signature)

(Name of Signatory if Stockholder is an entity - Please Print)

(Title of Signatory if Stockholder is an entity - Please Print)

Address: _____

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

APTOSE BIOSCIENCES INC.

WARRANT TO PURCHASE COMMON SHARES

Warrant Shares: _____

Issue Date: _____, 2024

Initial Exercise Date: _____, 2024

THIS COMMON SHARE PURCHASE WARRANT (the “Warrant”) certifies that, for value received, _____ or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to 5:00 p.m. (New York City time) on [], 2029 (the “Termination Date”) but not thereafter, to subscribe for and purchase from Aptose Biosciences Inc., a company organized under the Canada Business Corporations Act (the “Corporation”), up to _____ common shares in the capital of the Corporation (“Common Shares”) and, as subject to adjustment hereunder, the “Warrant Shares”). The purchase price of one Common Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Subscription Agreement between the Holder and the Corporation (the “Subscription Agreement”), dated _____, 2024:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Shares are then listed or quoted on a Trading Market, the bid price of the Common Shares for the time in question (or the nearest preceding date) on the principal Trading Market on which the Common Shares are then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Shares are then reported in the Pink Open Market (or a

similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Shares so reported, or (d) in all other cases, the fair market value of a Common Share as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Corporation, the fees and expenses of which shall be paid by the Corporation.

“Board of Directors” means the board of directors of the Corporation.

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

“Commission” means the United States Securities and Exchange Commission.

“Common Share Equivalents” means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Shares, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Shares.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Subsidiary” means any subsidiary of the Corporation and shall, where applicable, also include any direct or indirect subsidiary of the Corporation formed or acquired after the date hereof.

“Trading Day” means a day on which the Common Shares are traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Shares are listed or quoted for trading on the date in question: the Nasdaq Capital Market, the NYSE American, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, the Toronto Stock Exchange (or any successors to any of the foregoing).

“Transfer Agent” means the Corporation’s transfer agent

“**VWAP**” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Shares are then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Shares for such date (or the nearest preceding date) on the principal Trading Market on which the Common Shares are then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Shares are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Shares so reported, or (d) in all other cases, the fair market value of a Common Share as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Corporation, the fees and expenses of which shall be paid by the Corporation.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Corporation of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Corporation until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Corporation for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Corporation. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Corporation shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Corporation shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per Common Share under this Warrant shall be \$1.71, subject to adjustment hereunder (the “Exercise Price”).

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the resale of the Warrant Shares by the Holder, then this Warrant may be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Shares as of the time of the Holder’s execution of the applicable Notice of Exercise or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;
- (B) = the Exercise Price of this Warrant, as adjusted hereunder; and
- (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of the Warrant. The Corporation agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Corporation shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Corporation through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Corporation is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate,

registered in the Corporation's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Corporation of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Corporation and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Corporation of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Corporation fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Corporation shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Shares on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Corporation agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Corporation's primary Trading Market with respect to the Common Shares as in effect on the date of delivery of the Notice of Exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Corporation shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Corporation fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Corporation fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, Common Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Corporation shall (A) pay in cash to the Holder the amount, if any, by which (x) the

Holder's total purchase price (including brokerage commissions, if any) for the Common Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Corporation was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Common Shares that would have been issued had the Corporation timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Shares having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Common Shares with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Corporation shall be required to pay the Holder \$1,000. The Holder shall provide the Corporation written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Corporation, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver Common Shares upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Corporation shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Corporation, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Corporation may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Corporation (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Corporation shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Corporation will not close its shareholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

c) Holder's Exercise Limitations. The Corporation shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of Common Shares beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Common Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Common Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Corporation (including, without limitation, any other Common Share Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Corporation is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Corporation shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding Common Shares, a Holder may rely on the number of outstanding Common Shares as reflected in (A) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Corporation or (C) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of Common Shares outstanding. Upon the written or oral request of a Holder, the Corporation shall within one (1) Trading Day confirm orally and in writing to the Holder the number of common shares then outstanding. In any case, the number of outstanding Common Shares shall be determined after giving effect to the conversion or exercise of securities of the Corporation, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding Common Shares was reported. The "Beneficial Ownership Limitation" shall be 19.99% of the number of Common Shares outstanding immediately after giving effect to the issuance of Common Shares issuable upon exercise of this Warrant. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Corporation, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Shares or any other equity or equity equivalent securities payable in Common Shares (which, for avoidance of doubt, shall not include any Common Shares issued by the Corporation upon exercise of this Warrant), (ii) subdivides outstanding Common Shares into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding Common Shares into a smaller number of shares, or (iv) issues by reclassification of Common Shares any shares of capital stock of the Corporation, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of Common Shares (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of Common Shares outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of shareholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) [Reserved].

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Corporation grants, issues or sells any Common Share Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Common Shares (the “Purchase Rights”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Common Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Common Shares are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such Common Shares as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Corporation shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Common Shares, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or

options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of Common Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of Common Shares are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder’s right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any Common Shares as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Shares are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Shares or 50% or more of the voting power of the common equity of the Corporation, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Shares or any compulsory share exchange pursuant to which the Common Shares are effectively converted into or exchanged for other securities, cash or property, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding Common Shares or 50% or more of the voting power of the common equity of the Corporation (each a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of Common Shares of the successor or acquiring corporation or of the Corporation, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of Common Shares for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one Common Share in such Fundamental Transaction, and the Corporation shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative

value of any different components of the Alternate Consideration. If holders of Common Shares are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Corporation or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable contemplated Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; *provided, however*, that, if the Fundamental Transaction is not within the Corporation's control, including not approved by the Corporation's Board of Directors, the Holder shall only be entitled to receive from the Corporation or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Shares of the Corporation in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Shares are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; *provided, further*, that if holders of Common Shares of the Corporation are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Shares will be deemed to have received common stock of the Successor Entity (which Entity may be the Corporation following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Corporation under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such

Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the Common Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Common Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Corporation" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Corporation" shall refer instead to each of the Corporation and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Corporation prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Corporation prior thereto under this Warrant with the same effect as if the Corporation and such Successor Entity or Successor Entities, jointly and severally, had been named as the Corporation herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Corporation has sufficient authorized Common Shares for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of Common Shares deemed to be issued and outstanding as of a given date shall be the sum of the number of Common Shares (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Corporation shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Shares, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Shares, (C) the Corporation shall authorize the granting to all holders of the Common Shares rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any shareholders of the Corporation shall be required in connection with any reclassification of the Common Shares, any consolidation or merger to which the Corporation (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange

whereby the Common Shares are converted into other securities, cash or property, or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Corporation, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Shares of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Shares of record shall be entitled to exchange their Common Shares for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Corporation or any of the Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

h) Voluntary Adjustment By Corporation. Subject to the rules and regulations of the Trading Market, the Corporation may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Corporation.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Corporation or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Corporation shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Corporation unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Corporation within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Corporation assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Corporation, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Corporation shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Corporation shall register this Warrant, upon records to be maintained by the Corporation for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Corporation may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Corporation may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with the provisions of Section 7(g) of the Subscription Agreement.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Shareholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a shareholder of the Corporation prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Corporation be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Corporation covenants that upon receipt by the Corporation of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case

of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Corporation will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) [Reserved].

e) Covenants.

f) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Subscription Agreement.

g) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Subscription Agreement, if the Corporation willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Corporation shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

i) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Corporation shall be delivered in accordance with the notice provisions of the Subscription Agreement.

j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Shares or as a shareholder of the Corporation, whether such liability is asserted by the Corporation or by creditors of the Corporation.

k) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Corporation agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Corporation and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

m) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Corporation, on the one hand, and the Holder of this Warrant, on the other hand.

n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

o) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Corporation has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

APTOSE BIOSCIENCES INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: APTOSE BIOSCIENCES INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Corporation pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name:

(Please Print)

Address:

(Please Print)

Phone Number:

Email Address:

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

APTOSE BIOSCIENCES INC.

WARRANT TO PURCHASE COMMON SHARES

Warrant Shares: _____

Issue Date: _____, 2024

Initial Exercise Date: _____, 2024

THIS COMMON SHARE PURCHASE WARRANT (the “Warrant”) certifies that, for value received, Newbridge Securities Corporation or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to 5:00 p.m. (New York City time) on [], 2029 (the “Termination Date”) but not thereafter, to subscribe for and purchase from Aptose Biosciences Inc., a company organized under the Canada Business Corporations Act (the “Corporation”), up to _____ common shares in the capital of the Corporation (“Common Shares”) and, as subject to adjustment hereunder, the “Warrant Shares”). The purchase price of one Common Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Engagement Letter between the Holder and the Corporation, dated December 28, 2023, as amended on January 10, 2024 (the “Engagement Letter”):

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Shares are then listed or quoted on a Trading Market, the bid price of the Common Shares for the time in question (or the nearest preceding date) on the principal Trading Market on which the Common Shares are then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Shares are then reported in the Pink Open Market (or a

similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Shares so reported, or (d) in all other cases, the fair market value of a Common Share as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Corporation, the fees and expenses of which shall be paid by the Corporation.

“Board of Directors” means the board of directors of the Corporation.

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the City of New York are authorized or required by law or other governmental action to close; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

“Commission” means the United States Securities and Exchange Commission.

“Common Share Equivalents” means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Shares, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Shares.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Subsidiary” means any subsidiary of the Corporation and shall, where applicable, also include any direct or indirect subsidiary of the Corporation formed or acquired after the date hereof.

“Trading Day” means a day on which the Common Shares are traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Shares are listed or quoted for trading on the date in question: the Nasdaq Capital Market, the NYSE American, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, the Toronto Stock Exchange (or any successors to any of the foregoing).

“Transfer Agent” means the Corporation’s transfer agent

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Shares are then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Shares for such date (or the nearest preceding date) on the principal Trading Market on which the Common Shares are then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Shares are then reported in the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Shares so reported, or (d) in all other cases, the fair market value of a Common Share as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Corporation, the fees and expenses of which shall be paid by the Corporation.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Corporation of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Corporation until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Corporation for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Corporation. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Corporation shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Corporation shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per Common Share under this Warrant shall be \$2.1375, subject to adjustment hereunder (the “Exercise Price”).

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the resale of the Warrant Shares by the Holder, then this Warrant may be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Shares as of the time of the Holder’s execution of the applicable Notice of Exercise or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;
- (B) = the Exercise Price of this Warrant, as adjusted hereunder; and
- (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of the Warrant. The Corporation agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Corporation shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Corporation through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Corporation is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), and otherwise by physical delivery of a certificate,

registered in the Corporation's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Corporation of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Corporation and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Corporation of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Corporation fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Corporation shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Shares on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Corporation agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Corporation's primary Trading Market with respect to the Common Shares as in effect on the date of delivery of the Notice of Exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Corporation shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Corporation fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Corporation fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, Common Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Corporation shall (A) pay in cash to the Holder the amount, if any, by which (x) the

Holder's total purchase price (including brokerage commissions, if any) for the Common Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Corporation was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Common Shares that would have been issued had the Corporation timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Shares having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Common Shares with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Corporation shall be required to pay the Holder \$1,000. The Holder shall provide the Corporation written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Corporation, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver Common Shares upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Corporation shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Corporation, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Corporation may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Corporation (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. The Corporation shall pay all attorney fees required for the issuance of attorney legal opinions for removal of restrictive legends on Warrant Shares.

vii. Closing of Books. The Corporation will not close its shareholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

c) Holder's Exercise Limitations. The Corporation shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of Common Shares beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Common Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Common Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Corporation (including, without limitation, any other Common Share Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Corporation is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Corporation shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding Common Shares, a Holder may rely on the number of outstanding Common Shares as reflected in (A) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Corporation or (C) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of Common Shares outstanding. Upon the written or oral request of a Holder, the Corporation shall within one (1) Trading Day confirm orally and in writing to the Holder the number of common shares then outstanding. In any case, the number of outstanding Common Shares shall be determined after giving effect to the conversion or exercise of securities of the Corporation, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding Common Shares was reported. The "Beneficial Ownership Limitation" shall be 19.99% of the number of Common Shares outstanding immediately after giving effect to the issuance of Common Shares issuable upon exercise of this Warrant. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Corporation, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Shares or any other equity or equity equivalent securities payable in Common Shares (which, for avoidance of doubt, shall not include any Common Shares issued by the Corporation upon exercise of this Warrant), (ii) subdivides outstanding Common Shares into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding Common Shares into a smaller number of shares, or (iv) issues by reclassification of Common Shares any shares of capital stock of the Corporation, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of Common Shares (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of Common Shares outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of shareholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) [Reserved].

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time that this Warrant is outstanding, the Corporation grants, issues or sells any Common Share Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Common Shares (the “Purchase Rights”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Common Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Common Shares are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such Common Shares as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Corporation shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Common Shares, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or

options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of Common Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of Common Shares are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder’s right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any Common Shares as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Shares are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Shares or 50% or more of the voting power of the common equity of the Corporation, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Shares or any compulsory share exchange pursuant to which the Common Shares are effectively converted into or exchanged for other securities, cash or property, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires 50% or more of the outstanding Common Shares or 50% or more of the voting power of the common equity of the Corporation (each a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of Common Shares of the successor or acquiring corporation or of the Corporation, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of Common Shares for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one Common Share in such Fundamental Transaction, and the Corporation shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative

value of any different components of the Alternate Consideration. If holders of Common Shares are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Corporation or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable contemplated Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; *provided, however*, that, if the Fundamental Transaction is not within the Corporation's control, including not approved by the Corporation's Board of Directors, the Holder shall only be entitled to receive from the Corporation or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Shares of the Corporation in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Shares are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; *provided, further*, that if holders of Common Shares of the Corporation are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Shares will be deemed to have received common stock of the Successor Entity (which Entity may be the Corporation following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the highest VWAP during the period beginning on the Trading Day immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Corporation under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such

Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the Common Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Common Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Corporation" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Corporation" shall refer instead to each of the Corporation and the Successor Entity or Successor Entities, jointly and severally, may exercise every right and power of the Corporation prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Corporation prior thereto under this Warrant with the same effect as if the Corporation and such Successor Entity or Successor Entities, jointly and severally, had been named as the Corporation herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(e) regardless of (i) whether the Corporation has sufficient authorized Common Shares for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of Common Shares deemed to be issued and outstanding as of a given date shall be the sum of the number of Common Shares (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Corporation shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Shares, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Shares, (C) the Corporation shall authorize the granting to all holders of the Common Shares rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any shareholders of the Corporation shall be required in connection with any reclassification of the Common Shares, any consolidation or merger to which the Corporation (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange

whereby the Common Shares are converted into other securities, cash or property, or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Corporation, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Shares of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Shares of record shall be entitled to exchange their Common Shares for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Corporation or any of the Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

h) Voluntary Adjustment By Corporation. Subject to the rules and regulations of the Trading Market, the Corporation may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Corporation.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and the conditions set forth in Section 4(d) hereof, this Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Corporation or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Corporation shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Corporation unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Corporation within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Corporation assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Corporation, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Corporation shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Corporation shall register this Warrant, upon records to be maintained by the Corporation for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Corporation may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Corporation may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, comply with any transfer restrictions as the Corporation may reasonably enact.

e) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Miscellaneous.

a) No Rights as Shareholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a shareholder of the Corporation prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Corporation be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Corporation covenants that upon receipt by the Corporation of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case

of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Corporation will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) [Reserved].

e) Covenants.

f) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Engagement Letter.

g) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

h) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant or the Engagement Letter, if the Corporation willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Corporation shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

i) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Corporation shall be delivered in accordance with the notice provisions of the Engagement Letter.

j) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Shares or as a shareholder of the Corporation, whether such liability is asserted by the Corporation or by creditors of the Corporation.

k) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Corporation agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

l) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Corporation and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

m) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Corporation, on the one hand, and the Holder of this Warrant, on the other hand.

n) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

o) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Corporation has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

APTOSE BIOSCIENCES INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: APTOSE BIOSCIENCES INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Corporation pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name:

(Please Print)

Address:

(Please Print)

Phone Number:

Email Address:

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

APTOSE BIOSCIENCES INC.

WARRANT TO PURCHASE COMMON SHARES

Warrant No.: _____
 Number of Common Shares: _____
 Date of Issuance: _____, 202_ (“**Issuance Date**”)

Aptose Biosciences Inc., a company organized under the Canada Business Corporations Act (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, [HOLDER], the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, at any time or times on or after [] (the “**Initial Exercisability Date**”), but not after 11:59 p.m., New York time, on the Expiration Date, (as defined below), _____ (_____) fully paid non-assessable Common Shares (as defined below), subject to adjustment as provided herein (the “**Warrant Shares**”). Except as otherwise defined herein, capitalized terms in this Warrant to Purchase Common Shares (including any Warrants to Purchase Common Shares issued in exchange, transfer or replacement hereof, this “**Warrant**”), shall have the meanings set forth in Section 16. This Warrant is one of the Warrants to Purchase Common Shares issued pursuant to (i) that certain Underwriting Agreement, dated as of January 25, 2024 (the “**Subscription Date**”) by and between the Company and Newbridge Securities Corporation, (ii) the Company’s Registration Statement on Form S-1 (File number 333-275870) (the “**Registration Statement**”) and (iii) the Company’s prospectus dated as of _____, 2024 (the “**Final Prospectus**”).

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 1(f)), this Warrant may be exercised by the Holder at any time or times on or after the Initial Exercisability Date, in whole or in part, by delivery (whether via facsimile, electronic mail or otherwise) of a written notice, in the form attached hereto as Exhibit A (the “**Exercise Notice**”), of the Holder’s election to exercise this Warrant. Within one (1) Trading Day following the delivery of the Exercise Notice, the Holder shall make payment to the Company of an amount equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the “**Aggregate Exercise Price**”) in cash by wire transfer of immediately available funds or, if the provisions of Section 1(d) are applicable, by notifying the Company that this Warrant is being exercised pursuant to a Cashless Exercise (as defined in Section 1(d)). The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder, nor shall any ink-original signature or medallion guarantee (or other type of guarantee or notarization) with respect to any Exercise Notice be required. Execution and delivery of the Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares and the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within five (5) Trading Days of the date on which the final Exercise Notice has been delivered to the Company. On or before the first (1st) Trading Day following the date on which the Holder has delivered the applicable Exercise Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of confirmation of receipt of the Exercise Notice, in the form attached to the Exercise Notice, to the Holder and the Company’s transfer agent (the “**Transfer Agent**”). So long as the Holder delivers the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) and such information as the Company or Transfer Agent may reasonably request in order to effect the credit or issuance and dispatch, as applicable, set forth in clauses (X) or (Y), on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the earlier of (i) the second (2nd) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period, in each case following the date on which the Exercise Notice has been delivered to the Company, or, if the Holder does not deliver the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the first (1st) Trading Day following the date on which the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) is delivered (such earlier date, or if later, the earliest day on which the Company is required to deliver Warrant Shares pursuant to this Section 1(a), the “**Share Delivery Date**”), the Company shall (X) provided that the Transfer Agent is participating in The Depository Trust Company (“**DTC**”) Fast Automated Securities Transfer Program (“**FAST**”), credit such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, or (Y) if the Transfer Agent is not participating in FAST, issue and dispatch by overnight courier to the address as specified in the Exercise Notice, a certificate or other evidence of ownership of securities, registered in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise. The Company shall be responsible for all fees and expenses of the Transfer Agent and all fees and expenses with respect to the issuance of Warrant Shares via DTC, if any, including without limitation for same day processing. Upon delivery of the Exercise Notice and payment of the Aggregate Purchase Price (or notice of a Cashless Exercise, if applicable), the Holder shall be deemed for all corporate purposes to have become the holder of record and beneficial owner of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are credited to the Holder’s DTC account or the date of delivery of the certificates evidencing such Warrant Shares, as the case may be. If this Warrant is physically delivered to the Company in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Company shall as soon as practicable and in no event later than three (3) Trading Days after any exercise and at its own expense, issue and deliver to the Holder (or its designee) a new Warrant (in accordance with Section 7(d)) representing the right to purchase the number of Warrant Shares issuable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. No fractional Warrant Shares are to be issued upon the exercise of this Warrant, but rather the number of Warrant Shares to be issued shall be rounded to the nearest whole number. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent) which may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant. The Company’s obligations to issue and deliver Warrant Shares in accordance with the terms and subject to the conditions hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination; provided, however, that the Company shall not be required to deliver Warrant Shares with respect to an exercise prior to the Holder’s delivery of the Aggregate Exercise Price (or notice of a Cashless Exercise) with respect to such exercise.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$[] per share, subject to adjustment as provided herein.

(c) Company’s Failure to Timely Deliver Securities. If either (I) the Company shall fail, other than due to any action or inaction on the part of the Holder, to issue to the Holder on or prior to the applicable Share Delivery Date, if (x) the Transfer Agent is not participating in the FAST, a certificate of other evidence of ownership for the number of Warrant Shares to which the Holder is entitled and register such Warrant Shares on the Company’s share register or (y) the Transfer Agent is participating in the FAST, to credit the Holder’s balance account with DTC, for such number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise of this Warrant or (II) a registration statement (which may be the Registration Statement) covering the issuance or resale of the Warrant Shares that are the subject of the Exercise Notice (the “**Exercise Notice Warrant Shares**”) is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares and (x) the Company fails to promptly, but in no event later than one (1) Business Day after such registration statement becomes unavailable, to so notify the Holder and (y) the Company is unable to deliver the Exercise Notice Warrant Shares electronically without any restrictive legend by crediting such aggregate number of Exercise Notice Warrant Shares to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system (the event described in the immediately foregoing clause (II) is hereinafter referred to as a “**Notice Failure**” and together with the event described in clause (I) above, an “**Exercise Failure**”), then, in addition to all other remedies available to the Holder, if on or prior to the applicable Share Delivery Date either (I) if the Transfer Agent is not participating in FAST, the Company shall fail to issue and deliver a certificate or other evidence of ownership of securities to the Holder and register such Warrant Shares on the Company’s share register or, if the Transfer Agent is participating in the FAST, credit the Holder’s balance account with DTC for the number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise hereunder or pursuant to the Company’s obligation pursuant to clause (ii) below or (II) if a Notice Failure occurs, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder’s brokerage firm otherwise purchases, Common Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “**Buy-In**”), then the Company shall, within five (5) Trading Days after the Holder’s request, (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the Common Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Warrant Shares that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Shares having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrant Shares with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder’s right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver Warrant Shares upon exercise of the Warrant as required pursuant to the terms hereof. The Company’s current transfer agent participates in FAST. In the event that the Company changes transfer agents while this Warrant is outstanding, the Company shall select a transfer agent that participates in FAST. While this Warrant is outstanding, the Company shall cause its transfer agent to participate in FAST with respect to this Warrant. In addition to the foregoing rights, (i) if the Company fails to deliver the applicable number of Warrant Shares upon an exercise pursuant to Section 1 by the applicable Share Delivery Date, then the Holder shall have the right to rescind such exercise in whole or in part and retain and/or have the Company return, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an exercise shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and (ii) if a registration statement (which may be the Registration Statement) covering the issuance or resale of the Warrant Shares that are subject to an Exercise Notice is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares and the Holder has submitted an Exercise Notice prior to receiving notice of the non-availability of such registration statement and the Company has not already delivered the Warrant Shares underlying such Exercise Notice electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, the Holder shall have the option, by delivery of notice to the Company, to (x) rescind such Exercise Notice in whole or in part and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an Exercise Notice shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and/or (y) switch some or all of such Exercise Notice from a cash exercise to a Cashless Exercise. In addition to the foregoing, if due solely to the action or inaction of the Company, the Company fails to deliver to the Holder the Warrant Shares subject to an Exercise Notice by the third Trading Day following the Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the Weighted Average Price of the Common Shares on the date of the applicable Exercise Notice), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise.

(d) Cashless Exercise. Notwithstanding anything contained herein to the contrary, if a registration statement (which may be the Registration Statement) covering the issuance or resale of the Exercise Notice Warrant Shares is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares, the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the “Net Number” of Common Shares determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

- A= the total number of shares with respect to which this Warrant is then being exercised.
- B= as applicable: (i) the Closing Sale Price of the Common Shares on the Trading Day immediately preceding the date of the applicable Exercise Notice if such Exercise Notice is (1) both executed and delivered pursuant to Section 1(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 1(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the Weighted Average Price on the Trading Day immediately preceding the date of the applicable Exercise Notice or (z) the Bid Price of the Common Shares as of the time of the Holder’s execution of the applicable Exercise Notice if such Exercise Notice is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 1(a) hereof or (iii) the Closing Sale Price of the Common Shares on the date of the applicable Exercise Notice if the date of such Exercise Notice is a Trading Day and such Exercise Notice is both executed and delivered pursuant to Section 1(a) hereof after the close of “regular trading hours” on such Trading Day.
- C= the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

If Warrant Shares are issued in such a cashless exercise, the Company acknowledges and agrees that in accordance with Section 3(a)(9) of the Securities Act of 1933, as amended, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 1(d). Without limiting the rights of a Holder to receive Warrant Shares on a “cashless exercise,” and to receive the cash payments contemplated pursuant to Sections 1(c) and 4(b), in no event will the Company be required to net cash settle a Warrant exercise.

(e) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 11.

(f) Beneficial Ownership. Notwithstanding anything to the contrary contained herein, the Company shall not effect the exercise of any portion of this Warrant, and the Holder shall not have the right to exercise any portion of this Warrant, pursuant to the terms and conditions of this Warrant and any such exercise shall be null and void and treated as if never made, to the extent that after giving effect to such exercise, the Holder together with the other Attribution Parties collectively would beneficially own in excess of [4.99][9.99]% (the “**Maximum Percentage**”) of the number of Common Shares outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of Common Shares beneficially owned by the Holder and the other Attribution Parties shall include the number of Common Shares held by the Holder and all other Attribution Parties plus the number of Warrant Shares issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude the number of Warrant Shares which would be issuable upon (A) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any convertible notes or convertible preferred shares or warrants, including the other Warrants as well as pre-funded warrants to purchase common shares issued on the Subscription Date, as applicable) beneficially owned by the Holder or any other Attribution Party subject to a limitation on conversion or exercise analogous to the limitation contained in this Section 1(f). For purposes of this Section 1(f), beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the “**1934 Act**”). For purposes of this Warrant, in determining the number of outstanding Warrant Shares the Holder may acquire upon the exercise of this Warrant without exceeding the Maximum Percentage, the Holder may rely on the number of outstanding Common Shares as reflected in (x) the Company’s most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q and Current Reports on Form 8-K or other public filing with the Securities and Exchange Commission (the “**SEC**”), as the case may be, (y) a more recent public announcement by the Company or (z) any other written notice by the Company or the Transfer Agent setting forth the number of Common Shares outstanding (the “**Reported Outstanding Share Number**”). If the Company receives an Exercise Notice from the Holder at a time when the actual number of outstanding Common Shares is less than the Reported Outstanding Share Number, the Company shall (i) notify the Holder in writing of the number of Common Shares then outstanding and, to the extent that such Exercise Notice would otherwise cause the Holder’s beneficial ownership, as determined pursuant to this Section 1(f), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of Warrant Shares to be purchased pursuant to such Exercise Notice (the number of shares by which such purchase is reduced, the “**Reduction Shares**”) and (ii) as soon as reasonably practicable, the Company shall return to the Holder any exercise price paid by the Holder for the Reduction Shares. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing or by electronic mail to the Holder the number of Common Shares then outstanding. In any case, the number of outstanding Common Shares shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder and any other Attribution Party since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of Warrant Shares to the Holder upon exercise of this Warrant results in the Holder and the other Attribution Parties being deemed to beneficially own, in the aggregate, more than the Maximum Percentage of the number of outstanding Common Shares (as determined under Section 13(d) of the 1934 Act), the number of shares so issued by which the Holder’s and the other Attribution Parties’ aggregate beneficial ownership exceeds the Maximum Percentage (the “**Excess Shares**”) shall be deemed null and void and shall be cancelled ab initio, and the Holder shall not have the power to vote or to transfer the Excess Shares. As soon as reasonably practicable after the issuance of the Excess Shares has been deemed null and void, the Company shall return to the Holder the exercise price paid by the Holder for the Excess Shares. Upon delivery of a written notice to the Company, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage and, in the case of an increase, not in excess of 9.99%, as specified in such notice; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Holder and the other Attribution Parties and not to any other holder of Warrants that is not an Attribution Party of the Holder. For purposes of clarity, the Common Shares issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the 1934 Act. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 1(f) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 1(f) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived and shall apply to a successor holder of this Warrant.

(g) Required Reserve Amount. So long as this Warrant remains outstanding, the Company shall at all times keep reserved for issuance under this Warrant a number of Common Shares at least equal to 100% of the maximum number of Common Shares as shall be necessary to satisfy the Company's obligation to issue Common Shares under the Warrants then outstanding (without regard to any limitations on exercise) (the "**Required Reserve Amount**"); provided that at no time shall the number of Common Shares reserved pursuant to this Section 1(g) be reduced other than in connection with any exercise of Warrants or such other event covered by Section 2(c) below.

(h) Insufficient Authorized Shares. If at any time while this Warrant remains outstanding the Company does not have a sufficient number of authorized and unreserved Common Shares to satisfy its obligation to reserve for issuance the Required Reserve Amount (an "**Authorized Share Failure**"), then the Company shall promptly take all action reasonably necessary to increase the Company's authorized Common Shares to an amount sufficient to allow the Company to reserve the Required Reserve Amount for this Warrant then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than one hundred and twenty (120) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized Common Shares. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders' approval of such increase in authorized Common Shares and to cause its board of directors to recommend to the stockholders that they approve such proposal. Notwithstanding the foregoing, if at any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the its issued and outstanding Common Shares to approve the increase in the number of authorized Common Shares, the Company may satisfy this obligation by obtaining such consent and submitting for filing with the SEC an Information Statement on Schedule 14C.

(i) Withholding Taxes. Applicable withholding taxes (including backup withholding) may be withheld from payments and deemed payments on or with respect to this Warrant. In addition, if any withholding taxes (including backup withholding) are paid on behalf of Holder, then those withholding taxes may be set off against payments of cash or the delivery of Warrant Shares, if any, in respect of this Warrant (or any payments on Common Shares) or sales proceeds received by, or other funds or assets of, Holder.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

(a) Intentionally omitted.

(b) Voluntary Adjustment By Company. Subject to compliance with applicable securities laws and rules of the exchanges on which the Common Shares are listed, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

(c) Adjustment Upon Subdivision or Combination of Common Shares. If the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) its outstanding Common Shares into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any time on or after the Subscription Date combines (by combination, reverse stock split or otherwise) its outstanding Common Shares into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 2(c) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(d) Other Events. If any event occurs of the type contemplated by the provisions of Sections 2(b) and 2(c), but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights or other rights with equity features to all holders of Common Shares), then the Company's Board of Directors will make an appropriate adjustment in the Exercise Price and the number of Warrant Shares, as mutually determined by the Company's Board of Directors and the Required Holders, so as to protect the rights of the Holder; provided that no such adjustment pursuant to this Section 2(d) will increase the Exercise Price or decrease the number of Warrant Shares as otherwise determined pursuant to Sections 2(b) and 2(c).

3. **RIGHTS UPON DISTRIBUTION OF ASSETS.** In addition to any adjustments pursuant to Section 2 above, if, on or after the Subscription Date and on or prior to the Expiration Date, the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Common Shares, by way of return of capital or otherwise (including, without limitation, any distribution of cash, securities, property, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), then, in each such case, upon exercise of this Warrant that occurs after the record date fixed for determination of stockholders entitled to receive such Distribution, the Holder shall be entitled, in addition to the Warrant Shares otherwise issuable upon such exercise, the Distribution that such Holder would have been entitled to receive in respect of such number of Warrant Shares had the Holder been the record holder of such Warrant Shares immediately prior to such record date without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage (provided, however, that to the extent that such Distribution would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to such Distribution to such extent (and shall not be entitled to beneficial ownership of such Common Shares as a result of such Distribution (and beneficial ownership) to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such Distribution (and any Distributions declared or made on such initial Distribution or on any subsequent Distribution held similarly in abeyance) to the same extent as if there had been no such limitation).

4. **PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.**

(a) **Purchase Rights.** In addition to any adjustments pursuant to Section 2 above, if at any time on or after the Subscription Date and on or prior to the Expiration Date the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of Common Shares (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Common Shares acquirable upon complete exercise of this Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Common Shares are to be determined for the grant, issuance or sale of such Purchase Rights (provided, however, that to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Purchase Right to such extent (and shall not be entitled to beneficial ownership of such Common Shares as a result of such Purchase Right (and beneficial ownership) to such extent) and such Purchase Right to such extent shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such right (and any Purchase Right granted, issued or sold on such initial Purchase Right or on any subsequent Purchase Right to be held similarly in abeyance) to the same extent as if there had been no such limitation).

(b) **Fundamental Transaction.** The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 4(b), including agreements to deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant, including, without limitation, which is exercisable for a corresponding number of shares of capital stock equivalent to the Common Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Common Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such adjustments to the number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction). Upon the consummation of each Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for the Company (so that from and after the date of the applicable Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of each Fundamental Transaction, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction, in lieu of the Common Shares (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of this Warrant prior to the applicable Fundamental Transaction, such shares of common stock (or its equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant), as adjusted in accordance with the provisions of this Warrant. Notwithstanding the foregoing, and without limiting Section 1(f) hereof, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 4(b) to permit the Fundamental Transaction without the assumption of this Warrant. In addition to and not in substitution for any other rights hereunder, prior to the consummation of each Fundamental Transaction pursuant to which holders of Common Shares are entitled to receive securities or other assets with respect to or in exchange for Common Shares (a "**Corporate Event**"), the Company shall make appropriate provision to insure that the Holder will thereafter have the right to receive upon an exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction but prior to the Expiration Date, in lieu of the Common Shares (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) (collectively, the "**Corporate Event Consideration**") which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant). The provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Holder. The provisions of this Section 4(b) shall apply similarly and equally to successive Fundamental Transactions and Corporate Events. Notwithstanding the foregoing, in the event of a Change of Control, at the request of the Holder delivered before the 30th day after such Change of Control, the Company (or the Successor Entity) shall purchase this Warrant from the Holder by paying to the Holder, within five (5) Business Days after such request (or, if later, on the effective date of the Change of Control), an amount equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the effective date of such Change of Control, payable in cash; provided, however, that, if the Change of Control is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity, as of the date of consummation of such Change of Control, the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Shares of the Company in connection with the Change of Control, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Shares are given the choice to receive from among alternative forms of consideration in connection with the Change of Control; provided, further, that if holders of Common Shares are not offered or paid any consideration in such Change of Control, such holders of Common Shares will be deemed to have received common stock of the Successor Entity (which entity may be the Company following such Change of Control) in such Change of Control.

5. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation or Bylaws, or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issuance or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times in good faith carry out all of the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Shares receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Shares upon the exercise of this Warrant, and (iii) shall, so long as any of the Warrants are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Shares, solely for the purpose of effecting the exercise of the Warrants, the number of shares of Common Shares as shall from time to time be necessary to effect the exercise of the Warrants then outstanding (without regard to any limitations on exercise).

6. WARRANT HOLDER NOT DEEMED A SHAREHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of Common Shares of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a shareholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of securities, reclassification of capital, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a shareholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 6, the Company shall provide the Holder with copies of the same notices and other information given to the shareholders of the Company generally, contemporaneously with the giving thereof to the shareholders; provided, that, the Company shall not be obligated to provide such copies under this Section 6 if such notice and other information given to shareholders of the Company is publicly available on the Securities and Exchange Commission's Electronic Data Gathering, Analysis, and Retrieval system.

7. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form (but without the obligation to post a bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 7(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender.

(d) Issuance of New Warrants. Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant (i) shall be of like tenor with this Warrant, (ii) shall represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(a) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of Common Shares underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date, and (iv) shall have the same rights and conditions as this Warrant.

8. NOTICES. Whenever notice is required to be given under this Warrant, including, without limitation, an Exercise Notice, unless otherwise provided herein, such notice shall be given in writing, (i) if delivered (a) from within the domestic United States, by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, electronic mail or by facsimile or (b) from outside the United States, by International Federal Express, electronic mail or facsimile, and (ii) will be deemed given (A) if delivered by first-class registered or certified mail domestic, three (3) Business Days after so mailed, (B) if delivered by nationally recognized overnight carrier, one (1) Business Day after so mailed, (C) if delivered by International Federal Express, two (2) Business Days after so mailed and (D) at the time of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 prior to 5:00 p.m. (New York time) on a Trading Day, (E) the next Trading Day after the date of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 on a day that is not a Trading Day or later than 5:00 p.m. (New York time) on any Trading Day and (F) if delivered by facsimile, upon electronic confirmation of delivery of such facsimile, and will be delivered and addressed as follows:

(i) if to the Company, to:

Aptose Biosciences Inc.
251 Consumers Road, Suite 1105
Toronto, Ontario
Canada M2J 4R3
Attention: _____
Email: _____

With a copy (which will not constitute notice) to:

Dorsey & Whitney LLP
1095 West Pender Street, Suite 1070
Vancouver, BC V6E 2M6
Facsimile: () _____
Attention: Daniel M. Miller
Email: miller.dan@dorsey.com

(ii) if to the Holder, at such address or other contact information delivered by the Holder to Company or as is on the books and records of the Company.

The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant, including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) no later than three (3) Business Days following any adjustment of the Exercise Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) of the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the Common Shares, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase shares, warrants, securities or other property to holders of Common Shares or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, in each case at the same time as it provides such notice to the holders of Common Shares.

9. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant may be amended or waived and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder.

10. GOVERNING LAW; JURISDICTION; JURY TRIAL. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. The Company hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. The Company hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to the Company at the address set forth in Section 8(i) above or such other address as the Company subsequently delivers to the Holder and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed or operate to preclude the Holder from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to the Holder, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holder. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. **THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY WAIVE ANY RIGHT THEY MAY HAVE, AND AGREE NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

11. DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via facsimile or electronic mail within two (2) Business Days of receipt of the Exercise Notice or other event giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within three (3) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via facsimile or electronic mail (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten (10) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

12. REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and any other Transaction Documents, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

13. TRANSFER. This Warrant and the Warrant Shares may be offered for sale, sold, transferred, pledged or assigned without the consent of the Company.

14. SEVERABILITY; CONSTRUCTION; HEADINGS. If any provision of this Warrant is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Warrant so long as this Warrant as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s). This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

15. **DISCLOSURE.** Upon receipt or delivery by the Company of any notice in accordance with the terms of this Warrant, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, nonpublic information relating to the Company or its subsidiaries, the Company shall publicly disclose such material, nonpublic information on a Current Report on Form 8-K or otherwise. In the event that the Company believes that a notice by the Company contains material, nonpublic information relating to the Company or its subsidiaries, the Company so shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, the Holder shall be allowed to presume that all matters relating to such notice do not constitute material, nonpublic information relating to the Company or its subsidiaries.

16. **CERTAIN DEFINITIONS.** For purposes of this Warrant, the following terms shall have the following meanings:

(a) **“Affiliate”** means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that “control” of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(b) **“Attribution Parties”** means, collectively, the following Persons and entities: (i) any investment vehicle, including, any funds, feeder funds or managed accounts, currently, or from time to time after the Subscription Date, directly or indirectly managed or advised by the Holder’s investment manager or any of its Affiliates or principals, (ii) any direct or indirect Affiliates of the Holder or any of the foregoing, (iii) any Person acting or who could be deemed to be acting as a Group together with the Holder or any of the foregoing and (iv) any other Persons whose beneficial ownership of the Company’s Common Shares would or could be aggregated with the Holder’s and the other Attribution Parties for purposes of Section 13(d) of the 1934 Act. For clarity, the purpose of the foregoing is to subject collectively the Holder and all other Attribution Parties to the Maximum Percentage.

(c) **“Bid Price”** means, for any security as of the particular time of determination, the bid price for such security on the Principal Market as reported by Bloomberg as of such time of determination, or, if the Principal Market is not the principal securities exchange or trading market for such security, the bid price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg as of such time of determination, or if the foregoing does not apply, the bid price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg as of such time of determination, or, if no bid price is reported for such security by Bloomberg as of such time of determination, the average of the bid prices of any market makers for such security as reported on the Pink Open Market as of such time of determination. If the Bid Price cannot be calculated for a security as of the particular time of determination on any of the foregoing bases, the Bid Price of such security as of such time of determination shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 11. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.

(d) **“Black Scholes Value”** means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the “OV” function on Bloomberg determined as of the day immediately following the first public announcement of the applicable Change of Control, or, if the Change of Control is not publicly announced, the date the Change of Control is consummated, for pricing purposes and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of such date of request, (ii) an expected volatility equal to 100% (iii) the underlying price per share used in such calculation shall be the greater of (a) the highest Weighted Average Price during the five (5) Trading Days prior to the closing of the Change of Control and (b) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Change of Control, (iv) a zero cost of borrow and (v) a 360 day annualization factor.

(e) **“Bloomberg”** means Bloomberg Financial Markets.

(f) **“Business Day”** means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.

(g) **“Change of Control”** means any Fundamental Transaction other than (i) any reorganization, recapitalization or reclassification of the Common Shares in which holders of the Company’s voting power immediately prior to such reorganization, recapitalization or reclassification continue after such reorganization, recapitalization or reclassification to hold publicly traded securities and, directly or indirectly, are, in all material respect, the holders of the voting power of the surviving entity (or entities with the authority or voting power to elect the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities) after such reorganization, recapitalization or reclassification, (ii) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company or (iii) a merger in connection with a bona fide acquisition by the Company of any Person in which (x) the gross consideration paid, directly or indirectly, by the Company in such acquisition is not greater than 20% of the Company’s market capitalization as calculated on the date of the consummation of such merger and (y) such merger does not contemplate a change to the identity of a majority of the board of directors of the Company. Notwithstanding anything herein to the contrary, any transaction or series of transaction that, directly or indirectly, results in the Company or the Successor Entity not having Common Shares or common stock, as applicable, registered under the 1934 Act and listed on an Eligible Market shall be deemed a Change of Control.

(h) **“Closing Bid Price”** and **“Closing Sale Price”** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or the last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the OTC Link or on the Pink Open Market. If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price, as the case may be, of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

(i) **“Common Shares”** means (i) common shares in the capital of the Company, no par value, and (ii) any capital stock into which such Common Shares shall have been changed or any capital stock resulting from a reclassification of such Common Shares.

(j) **“Convertible Securities”** means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for Common Shares.

(k) **“Eligible Market”** means The Nasdaq Capital Market, the NYSE American LLC, The Nasdaq Global Select Market, The Nasdaq Global Market or The New York Stock Exchange, Inc.

(l) **“Expiration Date”** means the date sixty (60) months after the Initial Exercisability Date or, if such date falls on a day other than a Business Day or on which trading does not take place on the Principal Market (a **“Holiday”**), the next day that is not a Holiday.

(m) **“Fundamental Transaction”** means a transaction in which (A) the Company, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, (i) consolidates or merges with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (ii) sells, assigns, transfers, conveys or otherwise disposes of all or substantially all of the properties or assets of the Company or any of its “significant subsidiaries” (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (iii) makes, or allows one or more Subject Entities to make, or allow the Company to be subject to or have its Common Shares be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of at least either (x) 50% of the outstanding Common Shares, (y) 50% of the outstanding Common Shares calculated as if any Common Shares held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (z) such number of Common Shares such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding Common Shares, or (iv) consummates a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with one or more Subject Entities whereby all such Subject Entities, individually or in the aggregate, acquire, either (x) at least 50% of the outstanding Common Shares, (y) at least 50% of the outstanding Common Shares calculated as if any Common Shares held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (z) such number of Common Shares such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding Common Shares, or (v) reorganizes, recapitalizes or reclassifies its Common Shares, (B) the Company, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, allows any Subject Entity individually or the Subject Entities in the aggregate to be or become the “beneficial owner” (as defined in Rule 13d-3 under the 1934 Act), directly or indirectly, whether through acquisition, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding Common Shares, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (x) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Shares, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Shares calculated as if any Common Shares held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding Common Shares or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other shareholders of the Company to surrender their Common Shares without approval of the shareholders of the Company or (C) directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance of or the entering into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction.

(n) “**Group**” means a “group” as that term is used in Section 13(d) of the 1934 Act and as defined in Rule 13d-5 thereunder.

(o) “**Options**” means any rights, warrants or options to subscribe for or purchase Common Shares or Convertible Securities, but excludes, for the avoidance of doubt, any rights, warrants or options to subscribe for or purchase Common Shares or Convertible Securities issued pursuant to an incentive award plan of the Company.

(p) “**Person**” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(q) **“Principal Market”** means The Nasdaq Global Market.

(r) **“Required Holders”** means the holders of the Warrants representing at least a majority of the Common Shares underlying the Warrants then outstanding.

(s) **“Standard Settlement Period”** means the standard settlement period, expressed in a number of Trading Days, for the Company’s primary trading market or quotation system with respect to the Common Shares that is in effect on the date of receipt of an applicable Exercise Notice.

(t) **“Subject Entity”** means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.

(u) **“Successor Entity”** means one or more Person or Persons formed by, resulting from or surviving any Fundamental Transaction or Change of Control or one or more Person or Persons with which such Fundamental Transaction or Change of Control shall have been entered into.

(v) **“Trading Day”** means any day on which the Common Shares are traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Shares, then on the principal securities exchange or securities market on which the Common Shares are then traded.

(w) **“Transaction Documents”** means any agreement entered into by and between the Company and the Holder, as applicable.

(x) **“Weighted Average Price”** means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York time (or such other time as the Principal Market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as the Principal Market publicly announces is the official close of trading), as reported by Bloomberg through its “Volume at Price” function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York time (or such other time as such market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as such market publicly announces is the official close of trading), as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest Closing Bid Price and the lowest closing ask price of any of the market makers for such security as reported in the OTC Link or on the Pink Open Market. If the Weighted Average Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11 with the term “Weighted Average Price” being substituted for the term “Exercise Price.” All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Common Shares to be duly executed as of the Issuance Date set out above.

APTOSE BIOSCIENCES INC.

By: _____

Name:

Title:

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS
WARRANT TO PURCHASE COMMON SHARES

APTOSE BIOSCIENCES INC.

The undersigned holder hereby exercises the right to purchase _____ common shares ("**Warrant Shares**") of Aptose Biosciences Inc., a company organized under the Canada Business Corporations Act (the "**Company**"), evidenced by the attached Warrant to Purchase Common Shares (the "**Warrant**"). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The Holder intends that payment of the Exercise Price shall be made as:

_____ a "Cash Exercise" with respect to _____ Warrant Shares; and/or

_____ a "Cashless Exercise" with respect to _____ Warrant Shares.

2. Payment of Exercise Price. In the event that the holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the holder shall pay the Aggregate Exercise Price in the sum of \$_____ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder _____ Warrant Shares in accordance with the terms of the Warrant.

Date: _____, _____

Name of Registered Holder

By: _____
Name:
Title:

UNDERWRITER WARRANT TO PURCHASE COMMON SHARES

THE REGISTERED HOLDER OF THIS WARRANT TO PURCHASE COMMON SHARES BY ITS ACCEPTANCE HEREOF, AGREES THAT IT WILL NOT SELL, TRANSFER OR ASSIGN THIS WARRANT TO PURCHASE COMMON SHARES EXCEPT AS HEREIN PROVIDED AND THE REGISTERED HOLDER OF THIS WARRANT TO PURCHASE COMMON SHARES AGREES THAT IT WILL NOT SELL, TRANSFER, ASSIGN, PLEDGE OR HYPOTHECATE THIS PURCHASE WARRANT FOR A PERIOD OF ONE HUNDRED EIGHTY DAYS FOLLOWING THE ISSUANCE DATE (DEFINED BELOW) TO ANYONE OTHER THAN (I) NEWBRIDGE SECURITIES CORPORATION OR AN UNDERWRITER OR A SELECTED DEALER IN CONNECTION WITH THE OFFERING, OR (II) A BONA FIDE OFFICER OR PARTNER OF NEWBRIDGE SECURITIES CORPORATION OR OF ANY SUCH UNDERWRITER OR SELECTED DEALER.

THIS WARRANT TO PURCHASE COMMON SHARES IS NOT EXERCISABLE PRIOR TO [●], 2024¹. VOID AFTER 5:00 P.M., EASTERN TIME, [●], 2028².

APTOSE BIOSCIENCES INC.

Warrant No.: _____

Number of Common Shares: 395,438

Date of Issuance: January 30, 2024 (“**Issuance Date**”)

Aptose Biosciences Inc., a company organized under the Canada Business Corporations Act (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Newbridge Securities Corporation, the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, at any time or times on or after [] [INSERT DATE THAT IS 6 MONTHS FROM CLOSING] (the “**Initial Exercisability Date**”), but not after 11:59 p.m., New York time, on the Expiration Date, (as defined below), three hundred ninety five thousand four hundred thirty eight (395,438) fully paid non-assessable Common Shares (as defined below), subject to adjustment as provided herein (the “**Warrant Shares**”). Except as otherwise defined herein, capitalized terms in this Warrant to Purchase Common Shares (including any Warrants to Purchase Common Shares issued in exchange, transfer or replacement hereof, this “**Warrant**”), shall have the meanings set forth in Section 16. This Warrant is issued pursuant to (i) that certain Underwriting Agreement, dated as of January 25, 2024 (the “**Subscription Date**”) by and between the Company and Newbridge Securities Corporation, (ii) the Company’s Registration Statement on Form S-1 (File number 333-275870) (the “**Registration Statement**”) and (iii) the Company’s prospectus dated as of January 25, 2024 (the “**Final Prospectus**”).

¹ To be six months from the closing date for the base deal.

² To be four years from the Initial Exercise Date.

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 1(f)), this Warrant may be exercised by the Holder at any time or times on or after the Initial Exercisability Date, in whole or in part, by delivery (whether via facsimile, electronic mail or otherwise) of a written notice, in the form attached hereto as Exhibit A (the “**Exercise Notice**”), of the Holder’s election to exercise this Warrant. Within one (1) Trading Day following the delivery of the Exercise Notice, the Holder shall make payment to the Company of an amount equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the “**Aggregate Exercise Price**”) in cash by wire transfer of immediately available funds or, if the provisions of Section 1(d) are applicable, by notifying the Company that this Warrant is being exercised pursuant to a Cashless Exercise (as defined in Section 1(d)). The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder, nor shall any ink-original signature or medallion guarantee (or other type of guarantee or notarization) with respect to any Exercise Notice be required. Execution and delivery of the Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares and the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within five (5) Trading Days of the date on which the final Exercise Notice has been delivered to the Company. On or before the first (1st) Trading Day following the date on which the Holder has delivered the applicable Exercise Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of confirmation of receipt of the Exercise Notice, in the form attached to the Exercise Notice, to the Holder and the Company’s transfer agent (the “**Transfer Agent**”). So long as the Holder delivers the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) and such information as the Company or Transfer Agent may reasonably request in order to effect the credit or issuance and dispatch, as applicable, set forth in clauses (X) or (Y), on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the earlier of (i) the second (2nd) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period, in each case following the date on which the Exercise Notice has been delivered to the Company, or, if the Holder does not deliver the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) on or prior to the first (1st) Trading Day following the date on which the Exercise Notice has been delivered to the Company, then on or prior to the first (1st) Trading Day following the date on which the Aggregate Exercise Price (or notice of a Cashless Exercise, if applicable) is delivered (such earlier date, or if later, the earliest day on which the Company is required to deliver Warrant Shares pursuant to this Section 1(a), the “**Share Delivery Date**”), the Company shall (X) provided that the Transfer Agent is participating in The Depository Trust Company (“**DTC**”) Fast Automated Securities Transfer Program (“**FAST**”), credit such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, or (Y) if the Transfer Agent is not participating in FAST, issue and dispatch by overnight courier to the address as specified in the Exercise Notice, a certificate or other evidence of ownership of securities, registered in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise. The Company shall be responsible for all fees and expenses of the Transfer Agent and all fees and expenses with respect to the issuance of Warrant Shares via DTC, if any, including without limitation for same day processing. Upon delivery of the Exercise Notice and payment of the Aggregate Purchase Price (or notice of a Cashless Exercise, if applicable), the Holder shall be deemed for all corporate purposes to have become the holder of record and beneficial owner of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are credited to the Holder’s DTC account or the date of delivery of the certificates evidencing such Warrant Shares, as the case may be. If this Warrant is physically delivered to the Company in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Company shall as soon as practicable and in no event later than three (3) Trading Days after any exercise and at its own expense, issue and deliver to the Holder (or its designee) a new Warrant (in accordance with Section 7(d)) representing the right to purchase the number of Warrant Shares issuable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. No fractional Warrant Shares are to be issued upon the exercise of this Warrant, but rather the number of Warrant Shares to be issued shall be rounded to the nearest whole number. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent) which may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant. The Company’s obligations to issue and deliver Warrant Shares in accordance with the terms and subject to the conditions hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination; provided, however, that the Company shall not be required to deliver Warrant Shares with respect to an exercise prior to the Holder’s delivery of the Aggregate Exercise Price (or notice of a Cashless Exercise) with respect to such exercise.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$2.1375 per share, subject to adjustment as provided herein.

(c) Company’s Failure to Timely Deliver Securities. If either (I) the Company shall fail, other than due to any action or inaction on the part of the Holder, to issue to the Holder on or prior to the applicable Share Delivery Date, if (x) the Transfer Agent is not participating in the FAST, a certificate of other evidence of ownership for the number of Warrant Shares to which the Holder is entitled and register such Warrant Shares on the Company’s share register or (y) the Transfer Agent is participating in the FAST, to credit the Holder’s balance account with DTC, for such number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise of this Warrant or (II) a registration statement (which may be the Registration Statement) covering the issuance or resale of the Warrant Shares that are the subject of the Exercise Notice (the “**Exercise Notice Warrant Shares**”) is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares and (x) the Company fails to promptly, but in no event later than one (1) Business Day after such registration statement becomes unavailable, to so notify the Holder and (y) the Company is unable to deliver the Exercise Notice Warrant Shares electronically without any restrictive legend by crediting such aggregate number of Exercise Notice Warrant Shares to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system (the event described in the immediately foregoing clause (II) is hereinafter referred to as a “**Notice Failure**” and together with the event described in clause (I) above, an “**Exercise Failure**”), then, in addition to all other remedies available to the Holder, if on or prior to the applicable Share Delivery Date either (I) if the Transfer Agent is not participating in FAST, the Company shall fail to issue and deliver a certificate or other evidence of ownership of securities to the Holder and register such Warrant Shares on the Company’s share register or, if the Transfer Agent is participating in the FAST, credit the Holder’s balance account with DTC for the number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise hereunder or pursuant to the Company’s obligation pursuant to clause (ii) below or (II) if a Notice Failure occurs, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder’s brokerage firm otherwise purchases, Common Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a “**Buy-In**”), then the Company shall, within five (5) Trading Days after the Holder’s request, (A) pay in cash to the Holder the amount, if any, by which (x) the Holder’s total purchase price (including brokerage commissions, if any) for the Common Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Warrant Shares that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Shares having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrant Shares with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder’s right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver Warrant Shares upon exercise of the Warrant as required pursuant to the terms hereof. The Company’s current transfer agent participates in FAST. In the event that the Company changes transfer agents while this Warrant is outstanding, the Company shall select a transfer agent that participates in FAST. While this Warrant is outstanding, the Company shall cause its transfer agent to participate in FAST with respect to this Warrant. In addition to the foregoing rights, (i) if the Company fails to deliver the applicable number of Warrant Shares upon an exercise pursuant to Section 1 by the applicable Share Delivery Date, then the Holder shall have the right to rescind such exercise in whole or in part and retain and/or have the Company return, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an exercise shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and (ii) if a registration statement (which may be the Registration Statement) covering the issuance or resale of the Warrant Shares that are subject to an Exercise Notice is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares and the Holder has submitted an Exercise Notice prior to receiving notice of the non-availability of such registration statement and the Company has not already delivered the Warrant Shares underlying such Exercise Notice electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, the Holder shall have the option, by delivery of notice to the Company, to (x) rescind such Exercise Notice in whole or in part and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an Exercise Notice shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and/or (y) switch some or all of such Exercise Notice from a cash exercise to a Cashless Exercise. In addition to the foregoing, if due solely to the action or inaction of the Company, the Company fails to deliver to the Holder the Warrant Shares subject to an Exercise Notice by the third Trading Day following the Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the Weighted Average Price of the Common Shares on the date of the applicable Exercise Notice), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after the second Trading Day following such Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise.

(d) Cashless Exercise. Notwithstanding anything contained herein to the contrary, if a registration statement (which may be the Registration Statement) covering the issuance or resale of the Exercise Notice Warrant Shares is not available for the issuance or resale, as applicable, of such Exercise Notice Warrant Shares, the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the “Net Number” of Common Shares determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

- A = the total number of shares with respect to which this Warrant is then being exercised.
- B = as applicable: (i) the Closing Sale Price of the Common Shares on the Trading Day immediately preceding the date of the applicable Exercise Notice if such Exercise Notice is (1) both executed and delivered pursuant to Section 1(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 1(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the Weighted Average Price on the Trading Day immediately preceding the date of the applicable Exercise Notice or (z) the Bid Price of the Common Shares as of the time of the Holder’s execution of the applicable Exercise Notice if such Exercise Notice is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 1(a) hereof or (iii) the Closing Sale Price of the Common Shares on the date of the applicable Exercise Notice if the date of such Exercise Notice is a Trading Day and such Exercise Notice is both executed and delivered pursuant to Section 1(a) hereof after the close of “regular trading hours” on such Trading Day.

C = the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

If Warrant Shares are issued in such a cashless exercise, the Company acknowledges and agrees that in accordance with Section 3(a)(9) of the Securities Act of 1933, as amended, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 1(d). Without limiting the rights of a Holder to receive Warrant Shares on a “cashless exercise,” and to receive the cash payments contemplated pursuant to Sections 1(c) and 4(b), in no event will the Company be required to net cash settle a Warrant exercise.

(e) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 11.

(f) **Beneficial Ownership.** Notwithstanding anything to the contrary contained herein, the Company shall not effect the exercise of any portion of this Warrant, and the Holder shall not have the right to exercise any portion of this Warrant, pursuant to the terms and conditions of this Warrant and any such exercise shall be null and void and treated as if never made, to the extent that after giving effect to such exercise, the Holder together with the other Attribution Parties collectively would beneficially own in excess of 4.99% (the “**Maximum Percentage**”) of the number of Common Shares outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of Common Shares beneficially owned by the Holder and the other Attribution Parties shall include the number of Common Shares held by the Holder and all other Attribution Parties plus the number of Warrant Shares issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude the number of Warrant Shares which would be issuable upon (A) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any convertible notes or convertible preferred shares or warrants, including the other Warrants as well as pre-funded warrants to purchase common shares issued on the Subscription Date, as applicable) beneficially owned by the Holder or any other Attribution Party subject to a limitation on conversion or exercise analogous to the limitation contained in this Section 1(f). For purposes of this Section 1(f), beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the “**1934 Act**”). For purposes of this Warrant, in determining the number of outstanding Warrant Shares the Holder may acquire upon the exercise of this Warrant without exceeding the Maximum Percentage, the Holder may rely on the number of outstanding Common Shares as reflected in (x) the Company’s most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q and Current Reports on Form 8-K or other public filing with the Securities and Exchange Commission (the “**SEC**”), as the case may be, (y) a more recent public announcement by the Company or (z) any other written notice by the Company or the Transfer Agent setting forth the number of Common Shares outstanding (the “**Reported Outstanding Share Number**”). If the Company receives an Exercise Notice from the Holder at a time when the actual number of outstanding Common Shares is less than the Reported Outstanding Share Number, the Company shall (i) notify the Holder in writing of the number of Common Shares then outstanding and, to the extent that such Exercise Notice would otherwise cause the Holder’s beneficial ownership, as determined pursuant to this Section 1(f), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of Warrant Shares to be purchased pursuant to such Exercise Notice (the number of shares by which such purchase is reduced, the “**Reduction Shares**”) and (ii) as soon as reasonably practicable, the Company shall return to the Holder any exercise price paid by the Holder for the Reduction Shares. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing or by electronic mail to the Holder the number of Common Shares then outstanding. In any case, the number of outstanding Common Shares shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder and any other Attribution Party since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of Warrant Shares to the Holder upon exercise of this Warrant results in the Holder and the other Attribution Parties being deemed to beneficially own, in the aggregate, more than the Maximum Percentage of the number of outstanding Common Shares (as determined under Section 13(d) of the 1934 Act), the number of shares so issued by which the Holder’s and the other Attribution Parties’ aggregate beneficial ownership exceeds the Maximum Percentage (the “**Excess Shares**”) shall be deemed null and void and shall be cancelled ab initio, and the Holder shall not have the power to vote or to transfer the Excess Shares. As soon as reasonably practicable after the issuance of the Excess Shares has been deemed null and void, the Company shall return to the Holder the exercise price paid by the Holder for the Excess Shares. Upon delivery of a written notice to the Company, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage and, in the case of an increase, not in excess of 9.99%, as specified in such notice; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Holder and the other Attribution Parties and not to any other holder of Warrants that is not an Attribution Party of the Holder. For purposes of clarity, the Common Shares issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the 1934 Act. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 1(f) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 1(f) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived and shall apply to a successor holder of this Warrant.

(g) Required Reserve Amount. So long as this Warrant remains outstanding, the Company shall at all times keep reserved for issuance under this Warrant a number of Common Shares at least equal to 100% of the maximum number of Common Shares as shall be necessary to satisfy the Company's obligation to issue Common Shares under the Warrants then outstanding (without regard to any limitations on exercise) (the "**Required Reserve Amount**"); provided that at no time shall the number of Common Shares reserved pursuant to this Section 1(g) be reduced other than in connection with any exercise of Warrants or such other event covered by Section 2(c) below.

(h) Insufficient Authorized Shares. If at any time while this Warrant remains outstanding the Company does not have a sufficient number of authorized and unreserved Common Shares to satisfy its obligation to reserve for issuance the Required Reserve Amount (an "**Authorized Share Failure**"), then the Company shall promptly take all action reasonably necessary to increase the Company's authorized Common Shares to an amount sufficient to allow the Company to reserve the Required Reserve Amount for this Warrant then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than one hundred and twenty (120) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized Common Shares. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders' approval of such increase in authorized Common Shares and to cause its board of directors to recommend to the stockholders that they approve such proposal. Notwithstanding the foregoing, if at any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the its issued and outstanding Common Shares to approve the increase in the number of authorized Common Shares, the Company may satisfy this obligation by obtaining such consent and submitting for filing with the SEC an Information Statement on Schedule 14C.

(i) Withholding Taxes. Applicable withholding taxes (including backup withholding) may be withheld from payments and deemed payments on or with respect to this Warrant. In addition, if any withholding taxes (including backup withholding) are paid on behalf of Holder, then those withholding taxes may be set off against payments of cash or the delivery of Warrant Shares, if any, in respect of this Warrant (or any payments on Common Shares) or sales proceeds received by, or other funds or assets of, Holder.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

(a) Intentionally omitted.

(b) Voluntary Adjustment By Company. Subject to compliance with applicable securities laws and rules of the exchanges on which the Common Shares are listed, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the Board of Directors of the Company.

(c) Adjustment Upon Subdivision or Combination of Common Shares. If the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) its outstanding Common Shares into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any time on or after the Subscription Date combines (by combination, reverse stock split or otherwise) its outstanding Common Shares into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 2(c) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(d) Other Events. If any event occurs of the type contemplated by the provisions of Sections 2(b) and 2(c), but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights or other rights with equity features to all holders of Common Shares), then the Company's Board of Directors will make an appropriate adjustment in the Exercise Price and the number of Warrant Shares, as mutually determined by the Company's Board of Directors and the Required Holders, so as to protect the rights of the Holder; provided that no such adjustment pursuant to this Section 2(d) will increase the Exercise Price or decrease the number of Warrant Shares as otherwise determined pursuant to Sections 2(b) and 2(c).

3. RIGHTS UPON DISTRIBUTION OF ASSETS. In addition to any adjustments pursuant to Section 2 above, if, on or after the Subscription Date and on or prior to the Expiration Date, the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Common Shares, by way of return of capital or otherwise (including, without limitation, any distribution of cash, securities, property, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "**Distribution**"), then, in each such case, upon exercise of this Warrant that occurs after the record date fixed for determination of stockholders entitled to receive such Distribution, the Holder shall be entitled, in addition to the Warrant Shares otherwise issuable upon such exercise, the Distribution that such Holder would have been entitled to receive in respect of such number of Warrant Shares had the Holder been the record holder of such Warrant Shares immediately prior to such record date without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage (provided, however, that to the extent that such Distribution would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to such Distribution to such extent (and shall not be entitled to beneficial ownership of such Common Shares as a result of such Distribution (and beneficial ownership) to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such Distribution (and any Distributions declared or made on such initial Distribution or on any subsequent Distribution held similarly in abeyance) to the same extent as if there had been no such limitation).

4. PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.

(a) Purchase Rights. In addition to any adjustments pursuant to Section 2 above, if at any time on or after the Subscription Date and on or prior to the Expiration Date the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of Common Shares (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Common Shares acquirable upon complete exercise of this Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Common Shares are to be determined for the grant, issuance or sale of such Purchase Rights (provided, however, that to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Purchase Right to such extent (and shall not be entitled to beneficial ownership of such Common Shares as a result of such Purchase Right (and beneficial ownership) to such extent) and such Purchase Right to such extent shall be held in abeyance for the benefit of the Holder until such time or times as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such right (and any Purchase Right granted, issued or sold on such initial Purchase Right or on any subsequent Purchase Right to be held similarly in abeyance) to the same extent as if there had been no such limitation).

(b) **Fundamental Transaction.** The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 4(b), including agreements to deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant, including, without limitation, which is exercisable for a corresponding number of shares of capital stock equivalent to the Common Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Common Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such adjustments to the number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction). Upon the consummation of each Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for the Company (so that from and after the date of the applicable Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of each Fundamental Transaction, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction, in lieu of the Common Shares (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of this Warrant prior to the applicable Fundamental Transaction, such shares of common stock (or its equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant), as adjusted in accordance with the provisions of this Warrant. Notwithstanding the foregoing, and without limiting Section 1(f) hereof, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 4(b) to permit the Fundamental Transaction without the assumption of this Warrant. In addition to and not in substitution for any other rights hereunder, prior to the consummation of each Fundamental Transaction pursuant to which holders of Common Shares are entitled to receive securities or other assets with respect to or in exchange for Common Shares (a "**Corporate Event**"), the Company shall make appropriate provision to insure that the Holder will thereafter have the right to receive upon an exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction but prior to the Expiration Date, in lieu of the Common Shares (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) (collectively, the "**Corporate Event Consideration**") which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant). The provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Holder. The provisions of this Section 4(b) shall apply similarly and equally to successive Fundamental Transactions and Corporate Events. Notwithstanding the foregoing, in the event of a Change of Control, at the request of the Holder delivered before the 30th day after such Change of Control, the Company (or the Successor Entity) shall purchase this Warrant from the Holder by paying to the Holder, within five (5) Business Days after such request (or, if later, on the effective date of the Change of Control), an amount equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the effective date of such Change of Control, payable in cash; provided, however, that, if the Change of Control is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity, as of the date of consummation of such Change of Control, the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Shares of the Company in connection with the Change of Control, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Shares are given the choice to receive from among alternative forms of consideration in connection with the Change of Control; provided, further, that if holders of Common Shares are not offered or paid any consideration in such Change of Control, such holders of Common Shares will be deemed to have received common stock of the Successor Entity (which entity may be the Company following such Change of Control) in such Change of Control.

5. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation or Bylaws, or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issuance or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times in good faith carry out all of the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Shares receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Shares upon the exercise of this Warrant, and (iii) shall, so long as any of the Warrants are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Shares, solely for the purpose of effecting the exercise of the Warrants, the number of shares of Common Shares as shall from time to time be necessary to effect the exercise of the Warrants then outstanding (without regard to any limitations on exercise).

6. WARRANT HOLDER NOT DEEMED A SHAREHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of Common Shares of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a shareholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of securities, reclassification of capital, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a shareholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 6, the Company shall provide the Holder with copies of the same notices and other information given to the shareholders of the Company generally, contemporaneously with the giving thereof to the shareholders; provided, that, the Company shall not be obligated to provide such copies under this Section 6 if such notice and other information given to shareholders of the Company is publicly available on the Securities and Exchange Commission's Electronic Data Gathering, Analysis, and Retrieval system.

7. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. Pursuant to FINRA Rule 5110(g)(1), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the Issuance Date or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security: (i) by operation of law or by reason of reorganization of the Company; (ii) to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 7(a) for the remainder of the time period; (iii) if the aggregate amount of securities of the Company held by the Holder or related person do not exceed 1% of the securities being offered; (iv) that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or (v) the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 7(a) for the remainder of the time period.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form (but without the obligation to post a bond) and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 7(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender.

(d) Issuance of New Warrants. Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant (i) shall be of like tenor with this Warrant, (ii) shall represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(a) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of Common Shares underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date, and (iv) shall have the same rights and conditions as this Warrant.

8. **NOTICES.** Whenever notice is required to be given under this Warrant, including, without limitation, an Exercise Notice, unless otherwise provided herein, such notice shall be given in writing, (i) if delivered (a) from within the domestic United States, by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, electronic mail or by facsimile or (b) from outside the United States, by International Federal Express, electronic mail or facsimile, and (ii) will be deemed given (A) if delivered by first-class registered or certified mail domestic, three (3) Business Days after so mailed, (B) if delivered by nationally recognized overnight carrier, one (1) Business Day after so mailed, (C) if delivered by International Federal Express, two (2) Business Days after so mailed and (D) at the time of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 prior to 5:00 p.m. (New York time) on a Trading Day, (E) the next Trading Day after the date of transmission, if delivered by electronic mail to each of the email addresses specified in this Section 8 on a day that is not a Trading Day or later than 5:00 p.m. (New York time) on any Trading Day and (F) if delivered by facsimile, upon electronic confirmation of delivery of such facsimile, and will be delivered and addressed as follows:

(i) if to the Company, to:

Aptose Biosciences Inc.
251 Consumers Road, Suite 1105
Toronto, Ontario
Canada M2J 4R3
Attention: _____
Email: _____

With a copy (which will not constitute notice) to:

Dorsey & Whitney LLP
1095 West Pender Street, Suite 1070
Vancouver, BC V6E 2M6
Facsimile: (_____)_____
Attention: Daniel M. Miller
Email: miller.dan@dorsey.com

(ii) if to the Holder, at such address or other contact information delivered by the Holder to Company or as is on the books and records of the Company.

The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant, including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) no later than three (3) Business Days following any adjustment of the Exercise Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) of the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the Common Shares, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase shares, warrants, securities or other property to holders of Common Shares or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, in each case at the same time as it provides such notice to the holders of Common Shares.

9. **AMENDMENT AND WAIVER.** Except as otherwise provided herein, the provisions of this Warrant may be amended or waived and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder.

10. **GOVERNING LAW; JURISDICTION; JURY TRIAL.** This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. The Company hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. The Company hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to the Company at the address set forth in Section 8(i) above or such other address as the Company subsequently delivers to the Holder and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed to operate to preclude the Holder from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to the Holder, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holder. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. **THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY WAIVE ANY RIGHT THEY MAY HAVE, AND AGREE NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

11. DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via facsimile or electronic mail within two (2) Business Days of receipt of the Exercise Notice or other event giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within three (3) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via facsimile or electronic mail (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten (10) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

12. REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and any other Transaction Documents, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

13. TRANSFER. Subject to the restriction in Section 7(a), the Securities Act and any other applicable securities laws, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

14. SEVERABILITY; CONSTRUCTION; HEADINGS. If any provision of this Warrant is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Warrant so long as this Warrant as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s). This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

15. DISCLOSURE. Upon receipt or delivery by the Company of any notice in accordance with the terms of this Warrant, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, nonpublic information relating to the Company or its subsidiaries, the Company shall publicly disclose such material, nonpublic information on a Current Report on Form 8-K or otherwise. In the event that the Company believes that a notice by the Company contains material, nonpublic information relating to the Company or its subsidiaries, the Company so shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, the Holder shall be allowed to presume that all matters relating to such notice do not constitute material, nonpublic information relating to the Company or its subsidiaries.

16. **CERTAIN DEFINITIONS.** For purposes of this Warrant, the following terms shall have the following meanings:

(a) **“Affiliate”** means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that “control” of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(b) **“Attribution Parties”** means, collectively, the following Persons and entities: (i) any investment vehicle, including, any funds, feeder funds or managed accounts, currently, or from time to time after the Subscription Date, directly or indirectly managed or advised by the Holder’s investment manager or any of its Affiliates or principals, (ii) any direct or indirect Affiliates of the Holder or any of the foregoing, (iii) any Person acting or who could be deemed to be acting as a Group together with the Holder or any of the foregoing and (iv) any other Persons whose beneficial ownership of the Company’s Common Shares would or could be aggregated with the Holder’s and the other Attribution Parties for purposes of Section 13(d) of the 1934 Act. For clarity, the purpose of the foregoing is to subject collectively the Holder and all other Attribution Parties to the Maximum Percentage.

(c) **“Bid Price”** means, for any security as of the particular time of determination, the bid price for such security on the Principal Market as reported by Bloomberg as of such time of determination, or, if the Principal Market is not the principal securities exchange or trading market for such security, the bid price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg as of such time of determination, or if the foregoing does not apply, the bid price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg as of such time of determination, or, if no bid price is reported for such security by Bloomberg as of such time of determination, the average of the bid prices of any market makers for such security as reported on the Pink Open Market as of such time of determination. If the Bid Price cannot be calculated for a security as of the particular time of determination on any of the foregoing bases, the Bid Price of such security as of such time of determination shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 11. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.

(d) **“Black Scholes Value”** means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the “OV” function on Bloomberg determined as of the day immediately following the first public announcement of the applicable Change of Control, or, if the Change of Control is not publicly announced, the date the Change of Control is consummated, for pricing purposes and reflecting (i) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Warrant as of such date of request, (ii) an expected volatility equal to 100% (iii) the underlying price per share used in such calculation shall be the greater of (a) the highest Weighted Average Price during the five (5) Trading Days prior to the closing of the Change of Control and (b) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Change of Control, (iv) a zero cost of borrow and (v) a 360 day annualization factor.

(e) **“Bloomberg”** means Bloomberg Financial Markets.

(f) **“Business Day”** means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.

(g) **“Change of Control”** means any Fundamental Transaction other than (i) any reorganization, recapitalization or reclassification of the Common Shares in which holders of the Company’s voting power immediately prior to such reorganization, recapitalization or reclassification continue after such reorganization, recapitalization or reclassification to hold publicly traded securities and, directly or indirectly, are, in all material respect, the holders of the voting power of the surviving entity (or entities with the authority or voting power to elect the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities) after such reorganization, recapitalization or reclassification, (ii) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company or (iii) a merger in connection with a bona fide acquisition by the Company of any Person in which (x) the gross consideration paid, directly or indirectly, by the Company in such acquisition is not greater than 20% of the Company’s market capitalization as calculated on the date of the consummation of such merger and (y) such merger does not contemplate a change to the identity of a majority of the board of directors of the Company. Notwithstanding anything herein to the contrary, any transaction or series of transaction that, directly or indirectly, results in the Company or the Successor Entity not having Common Shares or common stock, as applicable, registered under the 1934 Act and listed on an Eligible Market shall be deemed a Change of Control.

(h) **“Closing Bid Price”** and **“Closing Sale Price”** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or the last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the OTC Link or on the Pink Open Market. If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price, as the case may be, of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

(i) **“Common Shares”** means (i) common shares in the capital of the Company, no par value, and (ii) any capital stock into which such Common Shares shall have been changed or any capital stock resulting from a reclassification of such Common Shares.

(j) **“Convertible Securities”** means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for Common Shares.

(k) **“Eligible Market”** means The Nasdaq Capital Market, the NYSE American LLC, The Nasdaq Global Select Market, The Nasdaq Global Market or The New York Stock Exchange, Inc.

(l) **“Expiration Date”** means the date that is four (4) years following the Initial Exercisability Date.

(m) **“Fundamental Transaction”** means a transaction in which (A) the Company, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, (i) consolidates or merges with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (ii) sells, assigns, transfers, conveys or otherwise disposes of all or substantially all of the properties or assets of the Company or any of its “significant subsidiaries” (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (iii) makes, or allows one or more Subject Entities to make, or allow the Company to be subject to or have its Common Shares be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of at least either (x) 50% of the outstanding Common Shares, (y) 50% of the outstanding Common Shares calculated as if any Common Shares held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (z) such number of Common Shares such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding Common Shares, or (iv) consummates a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with one or more Subject Entities whereby all such Subject Entities, individually or in the aggregate, acquire, either (x) at least 50% of the outstanding Common Shares, (y) at least 50% of the outstanding Common Shares calculated as if any Common Shares held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (z) such number of Common Shares such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding Common Shares, or (v) reorganizes, recapitalizes or reclassifies its Common Shares, (B) the Company, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, allows any Subject Entity individually or the Subject Entities in the aggregate to be or become the “beneficial owner” (as defined in Rule 13d-3 under the 1934 Act), directly or indirectly, whether through acquisition, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding Common Shares, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (x) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Shares, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Shares calculated as if any Common Shares held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding Common Shares or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other shareholders of the Company to surrender their Common Shares without approval of the shareholders of the Company or (C) directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance of or the entering into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction.

(n) “**Group**” means a “group” as that term is used in Section 13(d) of the 1934 Act and as defined in Rule 13d-5 thereunder.

(o) “**Options**” means any rights, warrants or options to subscribe for or purchase Common Shares or Convertible Securities, but excludes, for the avoidance of doubt, any rights, warrants or options to subscribe for or purchase Common Shares or Convertible Securities issued pursuant to an incentive award plan of the Company.

(p) “**Person**” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(q) “**Principal Market**” means The Nasdaq Global Market.

(r) “**Required Holders**” means the holders of the Warrants representing at least a majority of the Common Shares underlying the Warrants then outstanding.

(s) “**Standard Settlement Period**” means the standard settlement period, expressed in a number of Trading Days, for the Company’s primary trading market or quotation system with respect to the Common Shares that is in effect on the date of receipt of an applicable Exercise Notice.

(t) **“Subject Entity”** means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.

(u) **“Successor Entity”** means one or more Person or Persons formed by, resulting from or surviving any Fundamental Transaction or Change of Control or one or more Person or Persons with which such Fundamental Transaction or Change of Control shall have been entered into.

(v) **“Trading Day”** means any day on which the Common Shares are traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Shares, then on the principal securities exchange or securities market on which the Common Shares are then traded.

(w) **“Transaction Documents”** means any agreement entered into by and between the Company and the Holder, as applicable.

(x) **“Weighted Average Price”** means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market during the period beginning at 9:30:01 a.m., New York time (or such other time as the Principal Market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as the Principal Market publicly announces is the official close of trading), as reported by Bloomberg through its “Volume at Price” function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York time (or such other time as such market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York time (or such other time as such market publicly announces is the official close of trading), as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest Closing Bid Price and the lowest closing ask price of any of the market makers for such security as reported in the OTC Link or on the Pink Open Market. If the Weighted Average Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 11 with the term “Weighted Average Price” being substituted for the term “Exercise Price.” All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or other similar transaction during the applicable calculation period.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Common Shares to be duly executed as of the Issuance Date set out above.

APTOSE BIOSCIENCES INC.

By: _____
Name:
Title:

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS
WARRANT TO PURCHASE COMMON SHARES

APTOSE BIOSCIENCES INC.

The undersigned holder hereby exercises the right to purchase _____ common shares ("**Warrant Shares**") of Aptose Biosciences Inc., a company organized under the Canada Business Corporations Act (the "**Company**"), evidenced by the attached Warrant to Purchase Common Shares (the "**Warrant**"). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The Holder intends that payment of the Exercise Price shall be made as:

_____ a "Cash Exercise" with respect to _____ Warrant Shares; and/or

_____ a "Cashless Exercise" with respect to _____ Warrant Shares.

2. Payment of Exercise Price. In the event that the holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the holder shall pay the Aggregate Exercise Price in the sum of \$_____ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder _____ Warrant Shares in accordance with the terms of the Warrant.

Date: _____, _____

Name of Registered Holder

By: _____

Name:

Title:

Certain portions of this Exhibit have been redacted pursuant to Item 601(b)(10) of Regulation S-K and, where applicable, have been marked with “[***]” to indicate where redactions have been made. The marked information has been redacted because it is both (i) not material and (ii) is the type of information the Corporation treats as private and confidential.

APTOSE BIOSCIENCES INC.
SUBSCRIPTION AGREEMENT
COMMON SHARES AND WARRANTS
INSTRUCTIONS

1. Complete and sign the **Execution Page** (which follows this cover page) of this Subscription Agreement.
2. Provide payment of the purchase price in United States dollars by delivering a wire transfer according to the wire instructions below, representing the full subscription price payable by the Subscriber for the Common Shares and Warrants, set out on the first page of this Subscription Agreement:

Information	Wire Payment Details
Beneficiary Account:	[***]
Beneficiary Name:	[***]
Correspondent:	[***]
Intermediary BK:	[***]
Swift Code:	[***]
Beneficiary Bank:	[***]
Swift:	[***]
Branch Address:	[***]

Any associated wire transfer fees are the responsibility of the Subscriber.

The Subscriber will subscribe for a fixed dollar amount, with the number of Purchased Shares and accompanying Purchased Warrants to be determined in accordance with the terms and conditions of this Subscription Agreement.

3. Return a completed and originally executed copy of this Subscription Agreement and the other documents required to be delivered with it (including payment of the subscription price) by no later than 11:59 p.m. PT on January 26, 2024 to the Corporation or its legal counsel.

EXECUTION PAGE - SUBSCRIPTION FOR COMMON SHARES AND WARRANTS

TO: Aptose Biosciences Inc. (the “Corporation”)

The undersigned (the “**Subscriber**”) hereby irrevocably subscribes for and agrees to purchase from Aptose Biosciences Inc. (the “**Corporation**”) that number of common shares of the Corporation (individually, a “**Common Share**” and collectively, the “**Common Shares**”) and accompanying warrants of the Corporation (individually, a “**Warrant**” and collectively, the “**Warrants**”) as will be equal to the Aggregate Subscription Price set out below divided by the Subscription Price (the “**Purchased Shares**” with respect to the Common Shares and the “**Purchased Warrants**” with respect to the Warrants). The Purchased Shares and the Purchased Warrants will be sold in combination, with 1 Purchased Share and 1.11111106 Purchased Warrant comprising each combined security set purchased in this Offering. Each whole Purchased Warrant is exercisable for one Common Share at an exercise price of \$1.71 per Common Share. The “**Subscription Price**” per combined Purchased Share and 1.11111106 Purchased Warrant will be \$1.90.

The Subscriber agrees to be bound by the terms and conditions set forth in the attached “**Terms and Conditions of Subscription for Common Shares and Warrants**” and all other documentation contemplated by this agreement (together with this Execution Page, the “**Subscription Agreement**”). The Subscriber further agrees, without limitation, that the Corporation (and its counsel) may rely upon the Subscriber’s representations, warranties and covenants contained in such documents.

Hanmi Pharmaceutical Co., Ltd.

(Name of Subscriber – please print)

**Aggregate Subscription
Price: USD\$**

4,000,000

/s/ Jae Hyun Park

(Signature of Subscriber or authorized Signatory)

Number of Common Shares

2,105,263

Chief Executive Officer

Number of Warrants

2,339,181

(Official Capacity or Title – please print)

Jae Hyun Park

(Please print name of individual whose signature appears above if
different than the name of the Subscriber (Printed above.)

14, Wiryeseong-daero, Songpa-gu, Seoul, 05545, Korea

(Subscriber’s Address)

[***]

(Telephone Number)

[***]

(E-Mail Address)

Register the Common Shares and Warrants as set forth below:

(Name)

(Account Reference, if applicable)

(Address)

Deliver the Common Shares and Warrants as set forth below:

☒ Same as Registered Address (otherwise complete below)

(Name)

(Account reference, if applicable)

(Address)

(Contact Name)

(Address)

Excluding securities subscribed for in this Subscription Agreement, the Subscriber owns, directly or indirectly, or exercises control or direction over:

(a) 884,152 Common Shares.

ACCEPTANCE: The Corporation hereby accepts the subscription as set forth above on the terms and conditions contained in this Subscription Agreement.

January 25, 2024

APTOSE BIOSCIENCES INC.

By: /s/ Fletcher Payne

Name: Fletcher Payne

Title: Chief Financial Officer

TERMS AND CONDITIONS OF SUBSCRIPTION FOR COMMON SHARES AND WARRANTS

Terms of the Offering

1. **Offering.** The Purchased Shares and the Purchased Warrants, subscribed for hereunder by the Subscriber are for aggregate gross proceeds of \$4,000,000 (the “**Offering**”). The Purchased Shares and the Purchased Warrants will be sold in combination, with 1 Purchased Share and 1.11111106 Purchased Warrant comprising each combined security set purchased in this Offering. Each whole Purchased Warrant is exercisable for one Common Share at an exercise price of \$1.70 per Common Share. The Purchased Warrants will be exercisable immediately upon issuance and will expire five years from the date of issuance. The exercise price and number of Common Shares issuable upon exercise is subject to adjustment in the event of stock splits, combinations and other events affecting the Common Shares as hereinafter set forth.
2. **Use of Proceeds.** The Corporation shall use the proceeds from the Offering solely for tuspetinib development expenditures.
3. **Subscription Subject to Acceptance.** By signing this Subscription Agreement, the Subscriber offers to subscribe for the number of Common Shares and Warrants equal to the Aggregate Subscription Price set out on the cover page of this Subscription Agreement, divided by the Subscription Price.

In no event shall fractional Common Shares and Warrants be issued. If the number of Common Shares and/or Warrants obtained through the above calculation is not an even number, the number of Common Shares and/or Warrants to be issued shall be rounded down to the nearest whole number. This Subscription Agreement is not enforceable against the Corporation or the Subscriber unless (and except to the extent to which) it has been accepted by the Corporation. The Subscriber acknowledges that the subscription for the Purchased Shares and the Purchased Warrants will be made in accordance with and subject to the terms and conditions of this Subscription Agreement.
4. **Deliveries by Subscriber.** In connection with the purchase of the Purchased Shares and the Purchased Warrants, the Subscriber agrees to return the following to the Corporation’s legal counsel, McCarthy Tétrault LLP (“**MT**”), in accordance with the instructions on the cover page to this Subscription Agreement:
 - (a) this Subscription Agreement, completed and signed;
 - (b) a wire transfer for the Aggregate Subscription Price for the Purchased Shares and Purchased Warrants, denominated in United States dollars, payable to Aptose Biosciences Inc., with the wire transfer being payable as follows:

Information

Beneficiary Account:

Beneficiary Name:

Correspondent:

Intermediary BK:

Swift Code:

Beneficiary Bank:

Swift:

Branch Address:

Wire Payment Details

[***]

[***]

[***]

[***]

[***]

[***]

[***]

[***]

(c) any further documentation required under Applicable Securities Laws or by the Nasdaq Capital Market, the Toronto Stock Exchange (“TSX”) or other regulatory authority, or otherwise contemplated by this Subscription Agreement.

5. **Deliveries by Corporation.** The Corporation reserves the right to issue all or part of the Purchased Shares as anon-certificated book position. The Purchased Warrants will be in the form as set forth in Schedule A to this Agreement. In such a case, the Subscriber will not receive definitive certificates representing the Purchased Shares and instead will receive only a confirmation from the transfer agent. However, the Subscriber will receive definitive certificates representing the Purchased Warrants. If the Corporation does not proceed with the non-certificated issuance of the Purchased Shares, the Subscriber will receive definitive certificates representing the Purchased Shares.

6. **Expenses.** The Corporation shall pay all fees and expenses owed to Newbridge Securities Corporation as set forth in the engagement letter by and between Newbridge Securities Corporation and the Corporation dated December 28, 2023 (as amended by that certain letter agreement dated January 10, 2024).

Each party shall bear its own fees and expenses related to the transactions contemplated by the Transaction Documents. The Corporation shall pay all U.S. federal, state and local stamp and other similar transfer and other taxes and duties levied in connection with issuance of the Purchased Shares pursuant hereto.

7. **Defined Terms.** Except to the extent they are otherwise defined in this Subscription Agreement, capitalized terms used in this Subscription Agreement will have the meanings given to them in Annex 1 – Definitions.

8. **Closing.** The closing of the sale and issuance of the Purchased Shares and the Purchased Warrants (the “**Closing**”) will take place at such location and time as the Corporation and the Subscriber may determine (the “**Closing Time**”), which Closing Time to be concurrent with the closing of the Public Offering or as soon thereafter as practicable and currently expected to be January 30, 2024 (the “**Closing Date**”), subject to satisfaction or waiver by the relevant party of the conditions of Closing as set forth below.

If, at the Closing, the terms and conditions contained in this Subscription Agreement have been satisfied or waived by the relevant party, the Corporation shall notify MT in writing of such and (a) MT will deliver to the Corporation the completed Subscription Agreement, and (ii) the aggregate subscription price for the Purchased Shares and the Purchased Warrants and (b) the Corporation will deliver evidence representing the Purchased Shares and the Purchased Warrants registered in accordance with the delivery instructions provided by the Subscriber.

9. **Conditions of Closing in Favor of Corporation.** The Corporation's obligation to proceed with each Closing is subject to, among other things, the following conditions being fulfilled or performed on or before the Closing Time:
- (a) The Subscriber delivering to MT, for and on behalf of the Corporation, not later than 5:00 p.m. on the day that is two business days before the Closing Date:
 - (i) One fully completed and duly executed copy of this Subscription Agreement;
 - (ii) Evidence of completed wire transfer to MT or such other method of payment acceptable to the Corporation, representing the Aggregate Subscription Price payable for the Purchased Shares and the Purchased Warrants subscribed for by the Subscriber hereunder;
 - (iii) Any further documentation required under Applicable Securities Laws or by the Nasdaq Capital Market, the TSX or other regulatory authority, or otherwise contemplated by this Subscription Agreement.
 - (b) The Corporation accepting the Subscriber's subscription, in whole or in part;
 - (c) The offer, sale and issuance of the Purchased Shares and the Purchased Warrants being exempt from the prospectus and registration requirements of Applicable Securities Laws. As used in this Subscription Agreement, "**Applicable Securities Laws**" means any and all securities laws including, statutes, rules, regulations, by-laws, policies, guidelines, orders, decisions, rulings and awards, applicable in the jurisdictions in which the Purchased Shares and the Purchased Warrants will be offered, sold and issued, which for greater certainty includes Canada, the United States and South Korea, as applicable;
 - (d) The Subscriber executing and delivering to the Corporation all reports, undertakings or other documents required under Applicable Securities Laws in connection with the offer, sale and issuance of the Purchased Shares and the Purchased Warrants to the Subscriber;
 - (e) The representations and warranties of the Subscriber having been true and correct as of the date of this Subscription Agreement and being true and correct in respect of certain of such representations and warranties as agreed by the parties at the Closing Time;
 - (f) All covenants contained in this Subscription Agreement having been performed by the Subscriber at or before the Closing Time;
 - (g) The closing certificate of the Subscriber in the form of Schedule "B" hereto;
All documentation relating to the offer, sale and issuance of the Purchased Shares and the Purchased Warrants being in form and substance satisfactory to the Corporation; and
 - (h) [Reserved].
10. **Conditions of Closing in Favor of Subscriber.** The Subscriber's obligation to proceed with the Closing is subject to, among other things, the following conditions being fulfilled or performed on or before the Closing Time:
- (a) The Corporation obtaining all orders, permits, approvals, waivers, consents, licenses or similar authorizations of Regulators necessary to complete the offer, sale and issuance of the Purchased Shares and the Purchased Warrants. As used in this Subscription Agreement, "**Regulator**" means (i) any governmental or public entity department, court, commission, board, bureau, agency or instrumentality, (ii) any quasi-governmental, self-regulatory or private body exercising any regulatory authority and (iii) any stock exchange, including without limitation the Nasdaq Capital Market and the TSX;

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- (b) The representations and warranties of the Corporation having been true and correct as of the date of this Subscription Agreement and being true and correct, in all material respects, in respect of certain of such representations and warranties as agreed by the parties at the Closing Time;
 - (c) The representations and warranties of the Corporation having been true and correct as of the date of this Subscription Agreement and being true and correct in respect of certain of such representations and warranties as agreed by the parties at the Closing Time;
 - (d) All covenants contained in this Subscription Agreement having been performed by the Corporation at or before the Closing Time;
 - (e) The Purchased Warrant, amended and restated investor rights agreement dated January 25, 2024 (the “**Investor Rights Agreement**”, together with this Subscription Agreement and any other agreements, documents, certificates and instruments entered into or furnished by the parties hereto in connection with the transactions contemplated hereby and thereby, collectively being the “**Transaction Documents**”) shall be executed and delivered by the parties thereto;
 - (f) The closing certificate of the Corporation in the form of Schedule “A” hereto;
 - (g) The receipt of an opinion of counsel to the Corporation, in a form mutually agreed by the Corporation and the Subscriber prior to the date of this Subscription Agreement, in relation to the offer, sale and issue of the Purchased Shares and the Purchased Warrants, including that the transactions contemplated by this Subscription Agreement will not require shareholder approval of the Corporation or the approval of the Committee on Foreign Investment in the United States (CFIUS);
 - (h) Completion of customary financial and legal due diligence to the satisfaction of the Subscriber, in its sole discretion;
 - (i) The transactions contemplated by this Subscription Agreement will not require shareholder approval of the Corporation; and
 - (j) All documentation relating to the offer, sale and issuance of the Purchased Shares and the Purchased Warrants being in form and substance satisfactory to the Subscriber.
11. **Representations, Warranties, Acknowledgments and Covenants of the Subscriber.** The Subscriber represents, warrants, acknowledges and covenants to the Corporation (and acknowledges that it is relying thereon) both at the date hereof and at each Closing Time that:
- (a) it recognizes that the purchase of the Purchased Shares and Purchased Warrants involves a high degree of risk including, but not limited to, the following: (i) an investment in the Corporation is highly speculative and only investors who can afford the loss of their entire investment should consider investing in the Corporation and the Purchased Shares and Purchased Warrants; (ii) the Subscriber may not be able to liquidate his, her or its investment; (iii) there are restrictions on the ability of the Subscriber to sell the Purchased Shares and Purchased Warrants; (iv) in the event of a disposition, the Subscriber could sustain the loss of its entire investment; and (v) the Corporation has not paid any dividends since its inception and does not anticipate paying any dividends in the near future;

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- (b) it acknowledges and represents that it: (i) has adequate means of providing for its current financial needs and contingencies, (ii) has knowledge and experience in business and financial matters and prior investment experience, including investments in Common Shares without the benefit of a prospectus; (iii) recognizes the speculative nature of an investment in the Purchased Shares and Purchased Warrants; (iv) is able to bear the economic risk that it hereby assumes; and (v) could afford a complete loss of such investment in the Purchased Shares and Purchased Warrants;
- (c) it is aware that there are restrictions on the Subscriber's ability to resell the Purchased Shares and Purchased Warrants and it is the Subscriber's responsibility to consult the Subscriber's own advisors to find out what those restrictions are and to comply with them before selling the Purchased Shares and Purchased Warrants, and confirms that no representation has been made to it by or on behalf of the Corporation with respect thereto; acknowledges that it is aware of the characteristics of the Purchased Shares and Purchased Warrants, the risks relating to an investment therein and of the fact that it may not be able to resell the Purchased Shares and Purchased Warrants, except in accordance with limited exemptions under applicable securities legislation until expiry of the applicable restricted period and compliance with the other requirements of applicable law;
- (d) it is aware that the certificates representing the Purchased Shares, and Purchased Warrants and any Common Shares issuable upon exercise of the Purchased Warrants will bear a legend (or an ownership statement issued under a book-entry system will bear legend restriction notations) in substantially the following form:
- "THE SECURITIES OFFERED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS AND ARE BEING OFFERED AND SOLD IN RELIANCE ON EXEMPTIONS FROM THE REGISTRATION REQUIREMENTS OF SAID ACT AND SUCH LAWS. SUCH SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE TRANSFERRED OR RESOLD EXCEPT AS PERMITTED UNDER SAID ACT AND SUCH LAWS PURSUANT TO REGISTRATION OR EXEMPTION THEREFROM. SUCH SECURITIES HAVE NOT BEEN RECOMMENDED, APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION, ANY STATE SECURITIES COMMISSION OR ANY OTHER REGULATORY AUTHORITY."**
- (e) it is aware that the certificates representing the Purchased Warrants will also bear a legend in substantially the following form:
- "THE SECURITIES OFFERED HEREBY MAY NOT BE EXERCISED EXCEPT IN TRANSACTIONS EXEMPT FROM OR NOT SUBJECT TO THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT OF 1933, AS AMENDED."**
- (f) it has been furnished by the Corporation with all information regarding the Corporation, the terms and conditions of the Offering and any additional information that it has requested or desired to know, and has been afforded the opportunity to ask questions of and receive answers from duly authorized officers or other representatives of the Corporation concerning the Corporation and the terms and conditions of the Offering;

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- (g) it has not received or been provided with, nor has it requested, nor does it have any need to receive, any offering memorandum, any prospectus, sales or advertising literature, or any other document describing the business and affairs of the Corporation which has been prepared for delivery to, and review by, a prospective purchaser in order to assist it in making an investment decision in respect of the Purchased Shares and the Purchased Warrants and the Subscriber's decision to subscribe for the Purchased Shares and the Purchased Warrants was not based upon, and the Subscriber has not relied upon, any oral or written representations as to facts made by or on behalf of the Corporation, except as set forth herein and in the Corporation's current public disclosure record available on the system for electronic document analysis and retrieval at www.sedarplus.ca and www.sec.gov. To the extent necessary, the Subscriber has retained, at its own expense, and relied upon appropriate professional advice regarding the investment, tax and legal merits and consequences of this Subscription Agreement and the purchase of the Purchased Shares and the Purchased Warrants hereunder. The Subscriber disclaims reliance on any statements made or information provided by any person or entity in the course of the Subscriber's consideration of an investment in the Purchased Shares and the Purchased Warrants and the results of the Subscriber's own independent investigation;
- (h) it has not become aware of any advertisement in printed media of general and regular paid circulation (or other printed public media), radio, television or other means of telecommunications or other form of advertisement (including electronic display such as the Internet) with respect to the distribution of the Purchased Shares and the Purchased Warrants;
- (i) unless disclosed to the Corporation, the Subscriber is not a "control person" of the Corporation (within the meaning of applicable Canadian securities laws, and which generally includes a person holding or controlling (alone or in concert with other persons) more than 20% of the Common Shares), and unless disclosed to the Corporation, the purchase of securities under the Offering will not result in the Subscriber becoming a "control person";
- (j) it is purchasing the Purchased Shares and the Purchased Warrants as principal for its own account, not for the benefit of any other person, for investment only and not with a view to the resale or distribution of all or any of the Purchased Shares and the Purchased Warrants, it is resident in the jurisdiction set out as the "Subscriber's Address" on the face page hereof and that address is not being used solely for the purpose of acquiring the Purchased Shares and the Purchased Warrants;
- (k) it is an "accredited investor" within the meaning of Rule 501(a) of Regulation D under the U.S. Securities Act of 1933, as amended (the "**U.S. Securities Act**"), by virtue of being a corporation with total assets of greater than US\$5,000,000;
- (l) it is aware that the Corporation is relying on exemptions from the requirements under Applicable Securities Laws to provide the Subscriber with a prospectus, and no prospectus or registration statement has been filed by the Corporation with any stock exchange or regulatory authority in connection with the issuance of the Purchased Shares and the Purchased Warrants, and as a consequence:
- (i) the Subscriber is restricted from using some of the civil remedies otherwise available under applicable securities laws and certain protections, rights and remedies provided by certain securities laws, including statutory rights of rescission or damages, will not be available to the Subscriber; and

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- (ii) the Subscriber may not receive information that would otherwise be required to be provided to the Subscriber under Applicable Securities Laws;
 - (m) it acknowledges that:
 - (i) no stock exchange, securities commission or similar regulatory authority has reviewed or passed on the merits of the Purchased Shares and the Purchased Warrants;
 - (ii) there is no government or other insurance covering the Purchased Shares and the Purchased Warrants; and
 - (iii) there are risks associated with the purchase of the Purchased Shares and the Purchased Warrants;
 - (n) it understands that the Purchased Shares and the Purchased Warrants have not been registered under the U.S. Securities Act and therefore will be “restricted securities” in the United States and may be offered or sold only in transactions exempt from the registration requirements of the U.S. Securities Act and applicable state securities law;
 - (o) it understands and acknowledges that the Purchased Warrants may not be exercised except in transactions exempt from or not subject to the registration requirements of the U.S. Securities Act; that the Common Shares issuable upon exercise of the Purchased Warrants will be restricted securities within the meaning of Rule 144 under the U.S. Securities Act; that prior to any such exercise the Corporation may require the delivery of an opinion of recognized counsel or other evidence in form and substance reasonably satisfactory to such the Corporation to such effect; and that any certificates or ownership statements representing such Common Shares will bear a legend to such effect;
 - (p) it undertakes and agrees that it will not offer or sell Purchased Shares or Purchased Warrants except in accordance with the provisions of applicable securities legislation, regulations, rules, policies and orders and stock exchange rules, and the Subscriber is solely responsible for compliance with such legislation, rules, and regulations;
 - (q) it is duly incorporated or created and validly subsisting under the laws of the jurisdiction of its incorporation, and further certifies that all necessary approvals of directors, shareholders or otherwise have been given and obtained;
 - (r) the performance and compliance with the terms hereof, the subscription for the Purchased Shares and the Purchased Warrants and the completion of the transactions described herein by the Subscriber will not result in any material breach of, or be in conflict with, or constitute a material default under, or create a state of facts that, after notice or lapse of time, or both, would constitute a material default under any term or provision of the constating documents, by-laws or resolutions of the Subscriber, Applicable Securities Laws or any other laws applicable to the Subscriber, any agreement to which the Subscriber is a party, or any judgment, decree, order, statute, rule or regulation applicable to the Subscriber;

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- (s) the issuance of the Purchased Shares and the Purchased Warrants to the Subscriber may be effected by the Corporation without the necessity of the filing of a prospectus or any document with or obtaining any approval from or effecting any registration with any governmental entity or similar regulatory authority having jurisdiction over the Subscriber and will not cause the Corporation to become subject to, or require it to comply with, any disclosure, prospectus, filing, registration or reporting requirements under any Applicable Securities Laws of the Subscriber's jurisdiction of residence;
 - (t) it is knowledgeable of, or has been independently advised as to, the application or jurisdiction of the Applicable Securities Laws of the Subscriber's jurisdiction of residence which would apply to the purchase of the Purchased Shares and the Purchased Warrants;
 - (u) it is purchasing the Purchased Shares and the Purchased Warrants pursuant to exemptions from the prospectus and registration requirements (or their equivalent) under the Applicable Securities Laws of the Subscriber's jurisdiction of residence or, if such is not applicable, each is permitted to purchase the Purchased Shares and the Purchased Warrants under the Applicable Securities Laws of the Subscriber's jurisdiction of residence without the need to rely on an exemption;
 - (v) the issuance of the Purchased Shares and the Purchased Warrants to the Subscriber complies with the requirements of all Applicable Securities Laws in the jurisdiction of its residence;
 - (w) this Subscription Agreement and any other documents contemplated hereby, have been duly and validly authorized, executed and delivered by and constitute a legal, valid, binding and enforceable obligation of the Subscriber in accordance with its terms;
 - (x) it will execute, deliver, file and otherwise assist the Corporation in filing, such reports, undertakings and other documents with respect to the issue of the Purchased Shares and the Purchased Warrants as may be required by any securities commission, stock exchange or other regulatory authority. In particular, the Corporation is required to file a report of trade with all applicable Canadian securities regulatory authorities containing personal information about the Subscriber. This report of trade will include the full legal name, head office address and telephone number of the Subscriber, the number of Purchased Shares and Purchased Warrants purchased, the total purchase price paid for such Purchased Shares and Purchased Warrants, the date of the Closing and specific details of the prospectus exemption relied upon under Applicable Securities Laws in Canada to complete such purchase. The Corporation may also be required pursuant to Applicable Securities Laws in Canada to file this Subscription Agreement on SEDAR+ and in the United States on EDGAR. By completing this Subscription Agreement, the Subscriber authorizes the indirect collection of the information described in this Section 11(v) by all applicable Canadian securities regulatory authorities and consents to the disclosure of such information to the public through (i) the filing of a report of trade with such regulatory authorities and (ii) the filing of this Subscription Agreement on SEDAR+;

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- (y) none of the funds the Subscriber is using to purchase the Purchased Shares and the Purchased Warrants represent proceeds of crime for the purposes of the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act* (Canada) (the “**PCMLTFA**”) or the *United States Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act* (the “**Patriot Act**”) and the Subscriber acknowledges that the Corporation may in the future be required by law to disclose the Subscriber’s name and other information relating to this Subscription Agreement and the Subscriber’s subscription hereunder, on a confidential basis, pursuant to the PCMLTFA or the Patriot Act. To the best of its knowledge: (a) none of the subscription funds to be provided by the Subscriber: (i) have been or will be derived from or related to any activity that is deemed criminal under the law of Canada, the United States or any other jurisdiction; or (ii) are being tendered on behalf of a person or entity who has not been identified to the Subscriber, and (b) it shall promptly notify the Corporation if the Subscriber discovers that any of such representations ceases to be true, and to provide the Corporation with appropriate information in connection therewith;
- (z) it acknowledges that the Corporation’s counsel is acting as counsel to the Corporation and not as counsel to the Subscriber, and acknowledges that it is solely responsible for and has been encouraged to and should obtain independent legal, income tax and investment advice with respect to its subscription for Purchased Shares and Purchased Warrants and accordingly, has been independently advised as to the meanings of all terms contained herein relevant to the Subscriber for purposes of giving representations, warranties and covenants under this Subscription Agreement;
- (aa) no person (including the Corporation) has made to the Subscriber any written or oral representations, except as expressly stated in this Subscription Agreement:
- (i) that any person will resell or repurchase any of the Purchased Shares and the Purchased Warrants;
 - (ii) that any person will refund the purchase price for the Purchased Shares and the Purchased Warrants; or
 - (iii) as to the future price or value of any of the Purchased Shares and the Purchased Warrants;
- (bb) it is aware that the Corporation may complete additional financings in the future to develop the business of the Corporation and to fund its ongoing development; that there is no assurance that any financings will be available or, if available, that the financings will be available on reasonable terms; any future financings may have a dilutive effect on current securityholders, including the Subscriber; and, if future financings are not available, the Corporation may be unable to fund its ongoing development and the lack of capital resources may result in the failure of its business venture;
- (cc) it does not act “jointly or in concert” (as such phrase is given meaning by Applicable Securities Laws) with any other person for the purposes of the acquisition of the Purchased Shares and the Purchased Warrants; and
- (dd) it agrees to comply with Applicable Securities Laws and the policies of the Nasdaq Capital Market and TSX concerning the purchase of, the holding of, and the resale restrictions applicable to, the Purchased Shares and the Purchased Warrants.

12. **Representations, Warranties, Acknowledgments and Covenants of the Corporation.** The Corporation represents, warrants, acknowledges and covenants to the Subscriber (and acknowledges that it is relying thereon) both at the date hereof and at each Closing Time that:

(a) **Organization, Good Standing and Power.**

The Corporation and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Corporation nor any Subsidiary is in violation nor default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Corporation and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in a Material Adverse Effect and no proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(b) **Authorization, Enforcement.**

Each of the Corporation and its Subsidiaries has the requisite corporate or other power and authority to enter into and perform its obligations under each of the Transaction Documents to which it is a party and, in the case of the Corporation, to issue the Purchased Shares and the Purchased Warrants in accordance with the terms hereof and thereof. The execution, delivery and performance by the Corporation of each of the Transaction Documents to which it is a party and the consummation by it of the transactions contemplated hereby and thereby have been duly and validly authorized by all necessary corporate or other action (as applicable) on the part of the Corporation, and no further consent or authorization of the Corporation or its Board of Directors or its shareholders, or any other Person is required in order for the Corporation to execute, deliver and perform its respective obligations under the Transaction Documents to which it is a party. Each of the Transaction Documents to which the Corporation is a party has been duly executed and delivered by the Corporation and constitutes a valid and binding obligation of the Corporation enforceable against the Corporation in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation, conservatorship, receivership or similar laws relating to, or affecting generally the enforcement of, creditor's rights and remedies or by other equitable principles of general application (including any limitation of equitable remedies).

(c) **Capitalization.**

All the outstanding shares in the capital of the Corporation and each of its Subsidiaries have been duly and validly authorized and issued and are fully paid and non-assessable, and, except as otherwise set forth in the Commission Documents, all outstanding shares in the capital of the Subsidiaries are owned by the Corporation either directly or through wholly owned Subsidiaries and are free and clear of any perfected security interest or any other security interests, claims, liens or encumbrances. Except as set forth in the Commission Documents and this Subscription Agreement, there are no agreements or arrangements under which the Corporation is obligated to register the sale of any securities under the Securities Act. Except as set forth in the Commission Documents, no shares in the capital of the Corporation are entitled to preemptive rights and there are no outstanding debt securities and no contracts, commitments, understandings, or arrangements by which the Corporation is or may become bound to issue additional shares in the capital of the Corporation or options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into or exchangeable for, any shares in the capital of the Corporation other than those issued or granted in the ordinary course of business pursuant to the Corporation's equity incentive and/or compensatory plans or arrangements. Except for customary transfer restrictions contained in agreements entered into by the Corporation to sell restricted securities or as set forth in the Commission Documents, the Corporation is not a party to, and it has no Knowledge of, any agreement restricting the voting or transfer of any shares in the capital stock of the Corporation. Except as set forth in the Commission Documents, there are no securities or instruments containing anti-dilution or similar provisions that will be triggered by this Subscription Agreement or any of the other Transaction Documents or the consummation of the transactions described herein or therein. The Corporation has made available via SEDAR+ and EDGAR true and correct copies of the Corporation's Certificate of Incorporation as in effect on the date hereof (the "**Charter**"), and the Corporation's Bylaws as in effect on the date hereof (the "**Bylaws**").

(d) **Issuance of Securities.**

The Purchased Shares, the Purchased Warrants and the Common Shares issuable upon the exercise of the Purchased Warrants have been duly authorized by all necessary corporate action on the part of the Corporation. The Purchased Shares, the Purchased Warrants and the Common Shares issuable upon the exercise of the Purchased Warrants, when issued to the Subscriber in accordance with this Subscription Agreement shall be validly issued and outstanding, fully paid and non-assessable and free from all liens, charges, taxes, security interests, encumbrances, rights of first refusal, preemptive or similar rights and other encumbrances with respect to the issue thereof, and the Subscriber shall be entitled to all rights accorded to a holder of Common Shares with respect to the Purchased Shares and with respect to the Purchased Warrants only after the Purchased Warrants are exercised for Common Shares.

(e) **No Conflicts.**

The execution, delivery and performance by the Corporation of each of the Transaction Documents to which it is a party and the consummation by the Corporation of the transactions contemplated hereby and thereby do not and shall not (i) result in a violation of any provision of the Corporation's Charter or Bylaws, (ii) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default (or an event which, with notice or lapse of time or both, would become a default) under, or give rise to any rights of termination, amendment, acceleration or cancellation of, any material agreement, mortgage, deed of trust, indenture, note, bond, license, lease agreement, instrument or obligation to which the Corporation or of the Corporation's Subsidiaries is a party or is bound, (iii) create or impose a lien, charge or encumbrance on any property or assets of the Corporation or of the Corporation's Subsidiaries under any agreement or any commitment to which the Corporation or of the Corporation's Subsidiaries is a party or by which the Corporation or of the Corporation's Subsidiaries is bound or to which any of their respective properties or assets is subject, or (iv) result in a violation of any Canadian or U.S. federal, state, provincial, local or foreign statute, rule, regulation, order, judgment or decree applicable to the Corporation or of the Corporation's Subsidiaries or by which any property or asset of the Corporation or of the Corporation's Subsidiaries are bound or affected (including Applicable Securities Laws in the U.S. and Canada and the rules and regulations of the Nasdaq Capital Market or the TSX), except, in the case of clauses (ii), (iii) and (iv), for such conflicts, defaults, terminations, amendments, acceleration, cancellations, liens, charges, encumbrances and violations as would not, individually or in the aggregate, have a Material Adverse Effect. Except as specifically contemplated by this Subscription Agreement and as required under the Securities Act and any applicable state securities laws, the Corporation is not required under any Canadian or U.S. federal, state, provincial, local or foreign law, rule or regulation to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency (including, without limitation, the Nasdaq Capital Market and the TSX) in order for it to execute, deliver or perform any of its respective obligations under the Transaction Documents to which it is a party, or to issue the Purchased Shares and the Purchased Warrants to the Subscriber in accordance with the terms hereof and thereof (other than such consents, authorizations, orders, filings or registrations as have been obtained or made prior to the Closing Date); provided, however, that, for purposes of the representation made in this sentence, the Corporation is assuming and relying upon the accuracy of the representations and warranties of the Subscriber in this Subscription Agreement and the compliance by it with its covenants and agreements contained in this Subscription Agreement.

(f) **Commission Documents, Financial Statements; Disclosure Controls and Procedures; Internal Controls Over Financial Reporting; Accountants.**

- (i) The Corporation has timely filed all Commission Documents for the twelve months preceding the date of this Subscription Agreement (the “Filed Commission Documents”). The Corporation has delivered or made available to the Subscriber via EDGAR, SEDAR+ or otherwise true and complete copies of the Filed Commission Documents (including, without limitation, the 2022 Form 10-K) prior to the Closing Date. As of its filing date, each Commission Document (including, without limitation, the 2022 Form 10-K) complied in all material respects with the requirements of the Securities Act or the Exchange Act, as applicable, and other United States and Canadian federal, provincial, state and local laws, rules and regulations applicable to it, and, as of its filing date (or, if amended or superseded by a filing prior to the Closing Date, on the date of such amended or superseded filing) and did not contain any misrepresentation as at the date of such Commission Document and there are no undisclosed material facts with respect to the Corporation. Each Registration Statement, on the date it is filed with the Commission, and on the date it is declared effective by the Commission, shall comply in all material respects with the requirements of the Securities Act (including, without limitation, Rule 415 under the Securities Act) and shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading, except that this representation and warranty shall not apply to statements in or omissions from such Registration Statement made in reliance upon and in conformity with information relating to the Subscriber furnished to the Corporation in writing by or on behalf of the Subscriber expressly for use therein. The Prospectus and each Prospectus Supplement required to be filed pursuant to this Subscription Agreement and the Investor Rights Agreement after the Closing Date, when taken together, on its date, shall comply in all material respects with the requirements of the Securities Act (including, without limitation, Rule 424(b) under the Securities Act) and shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, except that this representation and warranty shall not apply to statements in or omissions from the Prospectus or any Prospectus Supplement made in reliance upon and in conformity with information relating to the Subscriber furnished to the Corporation in writing by or on behalf of the Subscriber expressly for use therein. Each Commission Document required to be filed pursuant to the Investor Rights Agreement, when such document is filed with or furnished to the Commission and, if applicable, when such document becomes effective, as the case may be, shall comply in all material respects with the requirements of the Securities Act or the Exchange Act, as applicable, and other federal, state and local laws, rules and regulations applicable to it. There are no outstanding or unresolved comments or undertakings in comment letters received by the Corporation from the Commission. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Corporation under the Securities Act or the Exchange Act. To the Corporation’s Knowledge, the Commission has not commenced any enforcement proceedings against the Corporation or any of its Subsidiaries.

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- (ii) The Corporation and the Subsidiaries have established and maintain disclosure controls and procedures (as such term is defined in Rule 13a-15 and 15d-15 under the Exchange Act). Except as disclosed in Commission Documents, such disclosure controls and procedures are designed to ensure that material information relating to the Corporation and its Subsidiaries is made known to the Corporation's Chief Executive Officer and its Chief Financial Officer by others within those entities, and such disclosure controls and procedures are effective to perform the functions for which they were established. The Corporation and the Subsidiaries have established and maintain internal control over financial reporting (as such term is defined in Rule 13a-15 and 15d-15 under the Exchange Act). Except as disclosed in Commission Documents, such internal control over financial reporting is designed to provide reasonable assurance that (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; (D) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (E) the interactive data in eXtensible Business Reporting Language in the Commission Documents fairly presents the information called for in all material respects and are prepared in accordance with the Commission's rules and guidelines applicable thereto. The Corporation's auditors and the Audit Committee of the Board of Directors of the Corporation have been advised of: (i) any significant deficiencies and material weaknesses in the design or operation of internal controls which could adversely affect the Corporation's ability to record, process, summarize, and report financial data; and (ii) any fraud, whether or not material, that involves management or other employees who have a role in the Corporation's internal controls. Since the date of the most recent evaluation of such disclosure controls and procedures, except as disclosed in Commission Documents, there have been (A) no material weakness in the Corporation's internal control over financial reporting (whether or not remediated) and (B) no significant changes in internal controls or in other factors that could significantly affect internal controls, including any corrective actions with regard to significant deficiencies.

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- (iii) The Corporation is in compliance with all provisions of the *Sarbanes-Oxley Act of 2002*, as amended, and the rules and regulations thereunder, which are applicable to it as of the date hereof.
 - (iv) The Corporation's accountants are set forth in the Commission Documents and, to the Knowledge of the Corporation, such accountants are an independent registered public accounting firm as required by the Securities Act.

(g) **Subsidiaries.**

The 2022 Form 10-K sets forth each subsidiary (each, a "**Subsidiary**," and collectively, the "**Subsidiaries**"), of the Corporation as of the date hereof, other than those that may be omitted pursuant to Item 601 of Regulation S-K, showing its jurisdiction of incorporation or organization, and the Corporation does not have any other Subsidiaries as of the date hereof. No Subsidiary of the Corporation is currently prohibited, directly or indirectly, from paying any dividends to the Corporation, from making any other distribution on such Subsidiary's share capital, from repaying to the Corporation any loans or advances to such Subsidiary from the Corporation or from transferring any of such Subsidiary's property or assets to the Corporation or any other Subsidiary of the Corporation, except as would not reasonably be expected to have a Material Adverse Effect.

(h) **No Material Adverse Effect or Material Adverse Change, No Undisclosed Liabilities.**

Except as otherwise disclosed in any Commission Document, since the end of the Corporation's most recent audited fiscal year: (i) the Corporation has not experienced or suffered any Material Adverse Effect, and, to the Corporation's Knowledge, there exists no current state of facts, condition or event which would have a Material Adverse Effect; (ii) there has not occurred any material adverse change, or any development that would reasonably be expected to result in a prospective material adverse change, in the condition, financial or otherwise, or in the earnings, business or operations of the Corporation from that set forth in the Commission Documents; (iii) neither the Corporation nor any of its Subsidiaries has incurred any material liability or obligation, direct or contingent, nor entered into any material transaction; (iv) the Corporation has not purchased any of its outstanding Common Shares, nor declared, paid or otherwise made any dividend or distribution of any kind on its Common Shares other than ordinary and customary dividends; and (v) there has not been any material change in the share capital, short-term debt or long-term debt of the Corporation.

Neither the Corporation nor any of its Subsidiaries has any liabilities, obligations, claims or losses (whether liquidated or unliquidated, secured or unsecured, absolute, accrued, contingent or otherwise) that would be required to be disclosed on a balance sheet of the Corporation or any Subsidiary (including the notes thereto) in conformity with GAAP and are not disclosed in the Commission Documents, other than those incurred in the ordinary course of the Corporation's or its Subsidiaries respective businesses since December 31, 2022 and which, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect.

(i) **No Undisclosed Events or Circumstances.**

No event, liability, development or circumstance has occurred or exists, or is reasonably expected to exist or occur with respect to the Corporation, any of its Subsidiaries or any of their respective businesses, properties, liabilities, prospects, operations (including results thereof) or condition (financial or otherwise), that would reasonably be expected to have a Material Adverse Effect.

(j) **Indebtedness.**

The Corporation's annual report on Form 10-K for the year ended December 31, 2022 sets forth, as of December 31, 2022, all outstanding secured and unsecured Indebtedness of the Corporation or any Subsidiary, or for which the Corporation or any Subsidiary has commitments through such date. For the purposes of this Subscription Agreement, "**Indebtedness**" shall mean (a) any liabilities for borrowed money or amounts owed in excess of \$100,000 (other than trade accounts payable incurred in the ordinary course of business), (b) all guaranties, endorsements, indemnities and other contingent obligations in respect of Indebtedness of others in excess of \$100,000, whether or not the same are or should be reflected in the Corporation's balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (c) the present value of any lease payments in excess of \$100,000 due under leases required to be capitalized in accordance with GAAP. There is no existing or continuing default or event of default in respect of any Indebtedness of the Corporation or any of its Subsidiaries. The Corporation has not taken any steps, and does not currently expect to take any steps, to seek protection pursuant to Title 11 of the United States Code or any similar United States or Canadian federal, provincial or state bankruptcy law or law for the relief of debtors, nor does the Corporation have any Knowledge that its creditors intend to initiate involuntary bankruptcy, insolvency, reorganization or liquidation proceedings or other proceedings for relief under Title 11 of the United States Code or any other United States or Canadian federal, provincial or state bankruptcy law or any law for the relief of debtors. The Corporation is financially solvent and is generally able to pay its debts as they become due.

(k) **Title to Assets.**

The Corporation and each of its Subsidiaries have good and marketable title in fee simple to all real property and good and marketable title to all personal property owned by them which is material to the business of the Corporation, in each case free and clear of all liens, encumbrances and defects except such as do not materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Corporation and its Subsidiaries; and any real property and buildings held under lease by the Corporation and its Subsidiaries are held by it under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere in any material respect with the use made and proposed to be made of such property and buildings by the Corporation and its Subsidiaries.

(l) **Actions Pending.**

Except as disclosed in Commission Documents, there is no action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the Knowledge of the Corporation, threatened against or affecting the Corporation or any of the Subsidiaries, or any of their respective officers or directors in their capacities as such, which would reasonably be expected to have a Material Adverse Effect.

(m) **Compliance With Laws.**

During the 12-month period immediately preceding the date hereof, except as described in the Filed Commission Documents, the Corporation and each of its Subsidiaries is and at all times has been in material compliance with all applicable U.S., Canadian and foreign statutes, rules, or regulations applicable to Corporation and its Subsidiaries ("**Applicable Laws**"), except as would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(n) **Certain Fees.**

No brokerage or finder's fees or commissions are or will be payable by the Corporation or of the Subsidiaries to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents, other than the fees paid to Newbridge Securities Corporation in, (i) this Offering and (ii) the underwriting fee contained in the Form S-1 in respect of the Public Offering that is payable to the Underwriter. The Subscriber shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section 12(n) incurred by the Corporation or of the Subsidiaries that may be due or payable in connection with the transactions contemplated by the Transaction Documents.

(o) **Operation of Business.**

The Corporation and the Subsidiaries possess or have obtained, all licenses, certificates, consents, orders, approvals, permits and other authorizations issued by, and have made all declarations and filings with, the appropriate federal, state, local or foreign governmental entity that are necessary for the ownership or lease of their respective properties or the conduct of their respective businesses as currently conducted (the "**Permits**"), except where the failure to possess, obtain or make the same would not, individually or in the aggregate, have a Material Adverse Effect. Neither the Corporation nor any Subsidiary has received written notice of any proceeding relating to revocation or modification of any such Permit or has any reason to believe that such Permit will not be renewed in the ordinary course, except where the failure to obtain any such renewal would not, individually or in the aggregate, have a Material Adverse Effect. This Section 12(o) does not relate to environmental matters, such items being the subject of Section 12(p).

(p) **Environmental Compliance.**

Other than as set forth in the Commission Documents, to the Knowledge of the Corporation, the Corporation and its Subsidiaries are not in violation of any statute, any rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances (collectively, "**Environmental Laws**"), owns or operates any real property contaminated with any substance that is subject to any Environmental Laws, is liable for any off-site disposal or contamination pursuant to any Environmental Laws, or subject to any claim relating to any Environmental Laws, which violation, contamination, liability or claim would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and the Corporation is not aware of any pending investigation which might lead to such a claim. Other than as set forth in the Commission Documents, there is no judgment, decree, injunction, rule, writ or order of any governmental entity under any Environmental Laws outstanding against the Corporation and its Subsidiaries which would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(q) **Material Agreements.**

Except as set forth in the Commission Documents, neither the Corporation nor any Subsidiary of the Corporation is a party to any written or oral contract, instrument, agreement commitment, obligation, plan or arrangement, a copy of which would be required to be filed with the Commission as an exhibit to an annual report on Form 10-K (collectively, "**Material Agreements**"). Each of the Material Agreements described in the Commission Documents conform in all material respects to the descriptions thereof contained or incorporated by reference therein. Except as set forth in the Commission Documents, the Corporation and each of its Subsidiaries have performed in all material respects all the obligations then required to be performed by them under the Material Agreements, have received no notice of default or an event of default by the Corporation or any of its Subsidiaries thereunder and are not aware of any basis for the assertion thereof, and neither the Corporation or any of its Subsidiaries nor, to the Knowledge of the Corporation, any other contracting party thereto are in default under any Material Agreement now in effect, the result of which would have a Material Adverse Effect. Except as set forth in the Commission Documents, each of the Material Agreements is in full force and effect, and constitutes a legal, valid and binding obligation enforceable in accordance with its terms against the Corporation and/or any of its Subsidiaries and, to the Knowledge of the Corporation, each other contracting party thereto, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation, conservatorship, receivership or similar laws relating to, or affecting generally the enforcement of, creditor's rights and remedies or by other equitable principles of general application.

(r) **Transactions With Affiliates.**

Except as disclosed in the Commission Documents, none of the Corporation's officers or directors, or to the Corporation's Knowledge, none of the Corporation's shareholders or any family member or Affiliate of any of the foregoing, has either directly or indirectly an interest in, or is a party to, any transaction that would be required to be disclosed as a related party transaction pursuant to Item 404 of Regulation S-K promulgated under the Securities Act.

(s) **Intellectual Property Rights.**

The Corporation and its Subsidiaries own or possess adequate rights or licenses to use all material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and rights necessary to conduct their respective businesses as now conducted, except as would not reasonably be expected to have a Material Adverse Effect. None of the Corporation's material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, government authorizations, trade secrets or other intellectual property rights have expired or terminated, or, by the terms and conditions thereof, will expire or terminate within two years from the date of this Subscription Agreement, except as would not reasonably be expected to have a Material Adverse Effect. The Corporation has no Knowledge of any infringement by the Corporation or the Subsidiaries of any material trademark, trade name rights, patents, patent rights, copyrights, inventions, licenses, service names, service marks, service mark registrations, trade secret or other similar rights of others, or of any such development of similar or identical trade secrets or technical information by others, and there is no claim, action or proceeding being made or brought against, or to the Corporation's Knowledge, being threatened against, the Corporation or the Subsidiaries regarding trademark, trade name, patents, patent rights, invention, copyright, license, service names, service marks, service mark registrations, trade secret or other infringement, which would reasonably be expected to have a Material Adverse Effect.

(t) **Investment Corporation Act Status.**

The Corporation is not required to be registered as, and immediately after receipt of payment for the Purchased Shares and Purchased Warrants will not be required to be registered as, an “investment company” within the meaning of the Investment Corporation Act of 1940, as amended.

(u) **Benefit Plans; Labor Matters.**

Each benefit and compensation plan, agreement, policy and arrangement that is maintained, administered or contributed to by the Corporation for current or former employees or directors of, or independent contractors with respect to, the Corporation has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, and the Corporation has complied in all material respects with all applicable statutes, orders, rules and regulations in regard to such plans, agreements, policies and arrangements. Each stock option granted under any equity incentive plan of the Corporation (each, a “**Stock Plan**”) was granted with a per share exercise price no less than the market price per common share on the grant date of such option in accordance with the rules of the Nasdaq Capital Market, and no such grant involved any “**back-dating**,” “**forward-dating**” or similar practice with respect to the effective date of such grant; each such option (i) was granted in compliance in all material respects with Applicable Laws and with the applicable Stock Plan(s), (ii) was duly approved by the Corporation’s Board of Directors, and (iii) has been properly accounted for in the Corporation’s financial statements and disclosed, to the extent required, in the Corporation’s filings or submissions with the Commission, and the Nasdaq Capital Market. Neither the Corporation nor any Subsidiary is in violation of or has received written notice of any violation with respect to any United States or Canadian federal, provincial or state law, regulation or rule relating to discrimination in the hiring, termination, promotion, employment or pay of employees, nor any applicable federal or state wages and hours law, nor any state law, regulation or rule precluding the denial of credit due to the neighborhood in which a property is situated, the violation of any of which, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect. There are no existing or, to the Knowledge of the Corporation, threatened labor disputes with the employees of the Corporation or any of the Subsidiaries that would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(v) **Taxes.**

Each of the Corporation and the Subsidiaries has filed on a timely basis (including in accordance with any applicable extensions) all material necessary United States and Canadian federal, provincial, state, local and foreign income and franchise tax returns required to be filed through the date hereof or have properly requested extensions thereof, and have paid all taxes shown as due thereon, and if due and payable, any related or similar assessment, fine or penalty levied against the Corporation or of the Subsidiaries. Except as disclosed in the Commission Documents, no material tax deficiency has been asserted against any such entity, and the Corporation has no Knowledge of any tax deficiency that is likely to be asserted against any such entity that, individually or in the aggregate, if determined adversely to any such entity, would reasonably be expected to have a Material Adverse Effect. All material tax liabilities are adequately provided for on the respective books of the Corporation and the Subsidiaries.

(w) **Insurance.**

The Corporation and each of its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as management of the Corporation believes to be prudent and customary in the businesses in which the Corporation and its Subsidiaries are engaged, including, but not limited to, insurance covering real and personal property owned or leased by the Corporation and the Subsidiaries against theft, damage, destruction, environmental liabilities, acts of vandalism, terrorism, earthquakes, flood and all other risks customarily insured against, all of which insurance is in full force and effect. Neither the Corporation nor any such Subsidiary has been refused any insurance coverage sought or applied for and neither the Corporation nor any such Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not reasonably be expected to have a Material Adverse Effect.

(x) **Dilutive Effect.**

The Corporation is aware and acknowledges that issuance of the Purchased Shares and the Purchased Warrants, and the issuance of the Common Shares issuable upon exercise of the Purchased Warrants, could cause dilution to existing shareholders and could significantly increase the outstanding number of Common Shares.

(y) **Manipulation of Price.**

The Corporation has not, and to its Knowledge no Person acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Corporation to facilitate the sale or resale of any of the Purchased Shares or the Purchased Warrants, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Purchased Shares or the Purchased Warrants, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Corporation. Neither the Corporation nor any of its officers, directors or Affiliates will during the term of this Subscription Agreement, and, to the Knowledge of the Corporation, no Person acting on their behalf will during the term of this Subscription Agreement, take any of the actions referred to in the immediately preceding sentence.

(z) **Securities Act.**

The Corporation has complied and shall comply with all Applicable Securities Laws in connection with the offer, issuance and sale of the Purchased Shares and Purchased Warrants hereunder, including, without limitation, the applicable requirements of the Securities Act. Each Registration Statement, upon filing with the Commission and at the time it is declared effective by the Commission, shall satisfy all of the requirements of the Securities Act to register the resale of the Registrable Securities included therein by the Subscriber in accordance with the Investor Rights Agreement on a delayed or continuous basis under Rule 415 under the Securities Act at then-prevailing market prices, and not fixed prices. The Corporation is not, and has not previously been at any time, an issuer identified in, or subject to, Rule 144(i).

(aa) **Listing and Maintenance Requirements; DTC Eligibility.**

The Common Shares are registered pursuant to Section 12(b) of the Exchange Act, and the Corporation has taken no action designed to, or which to its Knowledge is likely to have the effect of, terminating the registration of the Common Shares pursuant to the Exchange Act nor has the Corporation received any notification that the Commission is currently contemplating terminating such registration. Except as disclosed in the Filed Commission Documents, the Corporation has not, in the twelve (12) months preceding the date hereof, received any written notice from any Person to the effect that the Corporation is not in compliance with the listing or maintenance requirements of the Nasdaq Capital Market or the TSX. Except as disclosed in the Commission Documents, the Corporation is in compliance with all such listing and maintenance requirements of the Nasdaq Capital Market and of the TSX. The Common Shares are eligible for participation in the DTC book entry system and has shares on deposit at DTC for transferred electronically to third parties via DTC through its DWAC delivery system. The Corporation has not received notice from DTC to the effect that a suspension of, or restriction on, accepting additional deposits of the Common Shares, electronic trading or book-entry services by DTC with respect to the Common Shares is being imposed or is contemplated.

(bb) **Application of Takeover Protections.**

The Corporation and its Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Corporation's Charter, any agreement to which the Corporation is a party, the federal laws of Canada or Applicable Securities Laws that is or could become applicable to the Subscriber as a result of the Subscriber and the Corporation fulfilling their respective obligations or exercising their respective rights under the Transaction Documents (as applicable), including, without limitation, as a result of the Corporation's issuance of the Purchased Shares and the Purchased Warrants and the Subscriber's ownership of the Purchased Shares and the Purchased Warrants.

(cc) **Foreign Corrupt Practices.**

Neither the Corporation or Subsidiary, nor to the Knowledge of the Corporation, any agent or other Person acting on behalf of the Corporation, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Corporation (or made by any Person acting on its behalf of which the Corporation is aware) which is in violation of law, or (iv) violated in any material respect any provision of the *Foreign Corrupt Practices Act of 1977*, as amended, the *Corruption of Foreign Public Officials Act* (Canada), or the regulations promulgated thereunder.

(dd) **Money Laundering Laws.**

The operations of the Corporation and its Subsidiaries are and have been conducted at all relevant times in compliance with applicable financial recordkeeping and reporting requirements of the *Currency and Foreign Transactions Reporting Act of 1970*, as amended, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "**Money Laundering Laws**"); and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Corporation or any Subsidiary with respect to the Money Laundering Laws is pending or, to the Knowledge of the Corporation, threatened.

(ec) **OFAC.**

Neither the Corporation nor any of its Subsidiaries nor, to the Knowledge of the Corporation, any director, officer, agent, employee or Affiliate of the Corporation or any of its Subsidiaries (i) is currently subject to any sanctions administered by the U.S. government, including the Office of Foreign Assets Control of the U.S. Treasury Department (“**OFAC**”) or the U.S. Department of State, the United Nations Security Council, the European Union, Canada or the United Kingdom (including sanctions administered or controlled by His Majesty’s Treasury) (collectively, “**Sanctions**” and such persons, “**Sanctioned Persons**”) or other relevant sanctions authority, and (ii) will use the proceeds of this offering, directly or indirectly, to fund or facilitate the activities of any Sanctioned Persons or entity or any country, region or territory that is, at the time of such funding or facilitation, subject to Sanctions or any person or entity located in a country, region or territory subject to Sanctions (including any administered or enforced by OFAC or the U.S. Department of State), the United Nations Security Council, the European Union, Canada or the United Kingdom (including sanctions administered or controlled by His Majesty’s Treasury). Neither the Corporation nor any of its Subsidiaries nor, to the Knowledge of the Corporation, any director, officer, agent, employee or Affiliate of the Corporation or any of its Subsidiaries, is a Person that is, or is 50% or more owned or otherwise controlled by a Person that is: (i) the subject of any Sanctions; or (ii) located, organized or resident in a country, region or territory that is, or whose government is, the subject of Sanctions that broadly prohibit dealings with that country, region or territory (including at the time of this agreement, Cuba, Iran, North Korea, Syria, Russia and the Crimea, Kherson, Zapirizhzhia, the so-called Donetsk People’s republic and the so-called Luhansk People’s Republic regions of Ukraine) (collectively, “**Sanctioned Countries**” and each, a “**Sanctioned Country**”). The Corporation and its Subsidiaries have not engaged in any dealings or transactions with or for the benefit of Sanctioned Persons, or with or in a Sanctioned Country, in the preceding 3 years, nor does the Corporation or any of its Subsidiaries have any plans to deal or transact with Sanctioned Persons, or with or in Sanctioned Countries.

(ff) **Information Technology; Compliance with Data Privacy Laws.**

To the best of the Corporation’s knowledge and as previously disclosed under Commission Documents, (i) there have been no material breaches or violations of (or unauthorized access to) the Corporation, or the Subsidiaries’ information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications and databases (collectively, the “**IT Systems**”) or any personal, personally identifiable, sensitive, confidential or regulated data (collectively, “**Personal Data**”) processed or stored by or on behalf of the Corporation or the Subsidiaries, except for those that have been remedied without material cost or liability or the duty to notify any regulator, nor are there any pending internal investigations of the Corporation or the Subsidiaries relating to the same and (ii) the Corporation and the Subsidiaries are presently in compliance in all material respects with all Applicable Laws, statutes and regulations and contractual obligations relating to the privacy and security of IT Systems and Personal Data.

(gg) **No Disqualification Events.**

None of the Corporation, any of their predecessors, any affiliated issuer, any director, general partner executive officer, other officer of the Corporation participating in the offering contemplated hereby, any beneficial owner of 20% or more of the Corporation’s outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Corporation in any capacity at the time of sale (each, an “**Issuer Covered Person**”) is subject to any of the “**Bad Actor**” disqualifications described in Rule 506(d)(1)(i) to (viii) under the Securities Act (a “**Disqualification Event**”), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3) under the Securities Act. The Corporation have exercised reasonable care to determine whether any Issuer Covered Person is subject to a Disqualification Event.

(hh) **ERISA.**

Except for the Corporation's 401(k) plan for participation by the Corporation's employees and as set forth in the Commission Documents, the Corporation is not a party to an **"employee benefit plan,"** as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**"), which: (i) is subject to Title IV of ERISA and (ii) is or was at any time maintained, administered or contributed to by the Corporation or any of its ERISA Affiliates (as defined hereafter). These plans are referred to collectively herein as the **"Employee Plans."** An **"ERISA Affiliate"** of any person or entity means any other person or entity which, together with that Person or entity, could be treated as a single employer under Section 414(b), (c), (m) or (o) of the Code. Each Employee Plan has been maintained in material compliance with its terms and the requirements of Applicable Law. Except as set forth in the Commission Documents, there is no liability in respect of post-retirement health and medical benefits for retired employees of the Corporation or any of its ERISA Affiliates, other than medical benefits required to be continued under Applicable Law. No **"prohibited transaction"** (as defined in either Section 406 of ERISA or Section 4975 of the Code) has occurred with respect to any Employee Plan; and each Employee Plan that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which could cause the loss of such qualification.

(ii) **No Other Similar Agreement.**

Except as disclosed in the Commission Documents, other than the Transaction Documents to which it is a party, the Corporation is not a party to any agreement that is (or that contains any term, obligation or restriction that is) in effect on the date hereof with any Person, other than the Subscriber, relating to any **"at the market offering," "equity line of credit"** or any other similar continuous offering in which the Corporation may offer, issue or sell Common Shares or Common Shares Equivalents at a future determined price.

(jj) **Acknowledgement Regarding Subscriber's Acquisition of Securities.**

The Corporation acknowledges and agrees that the Subscriber is acting solely in the capacity of an arm's-length purchaser with respect to this Subscription Agreement and the transactions contemplated by the Transaction Documents. The Corporation further acknowledges that the Subscriber is not acting as a financial advisor or fiduciary of the Corporation (or in any similar capacity) with respect to this Subscription Agreement and the transactions contemplated by the Transaction Documents, and any advice given by the Subscriber or any of its representatives or agents in connection therewith is merely incidental to the Subscriber's acquisition of the Securities. The Corporation further represents to the Subscriber that the Corporation's decision to enter into the Transaction Documents to which it is a party has been based solely on the independent evaluation of the transactions contemplated thereby by the Corporation, respectively, and their respective representatives. The Corporation acknowledges and agrees that the Subscriber has not made and does not make any representations or warranties with respect to the transactions contemplated by the Transaction Documents other than those specifically set forth in Section 11.

(kk) **Reporting Issuer**

The Corporation is a reporting issuer (or the equivalent) in each of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and the Corporation is not in default of any material requirement of Applicable Securities Laws in Canada, no order ceasing or suspending trading in any securities of the Corporation or prohibiting the sale of the Common Shares has been issued by any competent authority having jurisdiction and remains in effect and, to the knowledge of the Corporation, no proceedings for such purpose are pending, threatened or contemplated.

13. **Underwriting Agreement Representations and Warranties.**

The Subscriber shall also have the benefit of the representations and warranties made by the Corporation to the Underwriter as set forth in the Underwriting Agreement as if the Subscriber was a party to the Underwriting Agreement and a direct beneficiary of such provisions (other than representations set forth in Sections 2(a) through 2(l), Sections 2(o) through 2(w), Sections 2(y) through Sections 2(z), Section 2(jj), Section 2(nn), Section 2(ss), Section 2(tt), Section 2(uu), Section 2(xx), Section 2(yy)). Such representations and warranties are incorporated by reference in this Subscription Agreement and shall form an integral part of this Subscription Agreement, with such changes as are necessary in order to reflect that they are being made by the Corporation to the Subscriber. Such representations and warranties will be true and correct as of the execution of this Subscription Agreement and as of the Closing Time.

Indemnification

14. **Indemnification of Subscriber.**

- (a) In consideration of the Subscriber's execution and delivery of this Subscription Agreement and acquiring the Purchased Shares and the Purchased Warrants hereunder and in addition to all of the other respective obligations of the Corporation under the Transaction Documents to which it is a party, subject to the provisions of this Section 14, the Corporation shall indemnify and hold harmless the Subscriber, each of its directors, officers, shareholders, members, partners, employees, representatives, agents and advisors (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding the lack of such title or any other title), each Person, if any, who controls the Subscriber (within the meaning of Section 15 of the Securities Act or Section 20(a) of the Exchange Act), and the respective directors, officers, shareholders, members, partners, employees, representatives, agents and advisors (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding the lack of such title or any other title) of such controlling Persons (each, a "**Subscriber Party**"), from and against all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses (including all judgments, amounts paid in settlement, court costs, reasonable attorneys' fees and costs of defense and investigation) (collectively, "**Damages**") that any Subscriber Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by the Corporation in this Subscription Agreement or in the other Transaction Documents to which it is a party or (b) any action, suit, claim or proceeding (including for these purposes a derivative action brought on behalf of the Corporation) instituted against such Subscriber Party arising out of or resulting from the execution, delivery, performance or enforcement of the Transaction Documents, other than claims for indemnification within the scope of Section 2.8 of the Investor Rights Agreement; provided, however, that (x) the foregoing indemnity shall not apply to any Damages to the extent, but only to the extent, that such Damages resulted directly and primarily from any acts or failures to act, undertaken or omitted to be taken by such Subscriber Party through its fraud, bad faith, gross negligence, or willful or reckless misconduct.

- (b) The Corporation shall reimburse any Subscriber Party promptly upon demand (with accompanying presentation of documentary evidence) for all legal and other costs and expenses reasonably incurred by such Subscriber Party in connection with (i) any action, suit, claim or proceeding, whether at law or in equity, to enforce compliance by the Corporation with any provision of the Transaction Documents to which it is a party or (ii) any other any action, suit, claim or proceeding, whether at law or in equity, with respect to which it is entitled to indemnification under this Section 14; provided that the Subscriber shall promptly reimburse the Corporation for all such legal and other costs and expenses to the extent a court of competent jurisdiction determines that any Subscriber Party was not entitled to such reimbursement.
- (c) A Subscriber Party's right to indemnification or other remedies based upon the representations, warranties, covenants and agreements of the Corporation set forth in the Transaction Documents to which it is a party shall not in any way be affected by any investigation or knowledge of such Subscriber Party. Such representations, warranties, covenants and agreements shall not be affected or deemed waived by reason of the fact that a Subscriber Party knew or should have known that any representation or warranty might be inaccurate or that the Corporation failed to comply with any agreement or covenant. Any investigation by such Subscriber Party shall be for its own protection only and shall not affect or impair any right or remedy hereunder.
- (d) To the extent that the foregoing joint and several undertakings by the Corporation set forth in this Section 14 may be unenforceable for any reason, the Corporation shall make the maximum contribution to the payment and satisfaction of each of the Damages which is permissible under Applicable Law.

15. Indemnification Procedures.

- (a) Promptly after an Subscriber Party receives notice of a claim or the commencement of an action for which the Subscriber Party intends to seek indemnification under this Section 15, the Subscriber Party will notify the Corporation in writing of the claim or commencement of the action, suit or proceeding; provided, however, that failure to notify the Corporation will not relieve the Corporation from liability under this Section 15, except to the extent it has been materially prejudiced by the failure to give notice. The Corporation will be entitled to participate in the defense of any claim, action, suit or proceeding as to which indemnification is being sought, and if the Corporation acknowledges in writing the obligation to indemnify the Subscriber Party against whom the claim or action is brought, the Corporation may (but will not be required to) assume the defense against the claim, action, suit or proceeding with counsel satisfactory to it. After the Corporation notifies the Subscriber Party that the Corporation wishes to assume the defense of a claim, action, suit or proceeding, the Corporation will not be liable for any further legal or other expenses incurred by the Subscriber Party in connection with the defense against the claim, action, suit or proceeding except that if, in the opinion of counsel to the Subscriber Party, it would be inappropriate under the applicable rules of professional responsibility for the same counsel to represent both the Corporation and such Subscriber Party. In such event, the Corporation will pay the reasonable fees and expenses of no more than one separate counsel for all such Subscriber Parties promptly as such fees and expenses are incurred. Each Subscriber Party, as a condition to receiving indemnification as provided in Section 14, will cooperate in all reasonable respects with the Corporation in the defense of any action or claim as to which indemnification is sought. The Corporation will not be liable for any settlement of any action effected without its prior written consent, which consent shall not be unreasonably withheld, delayed or conditioned. The Corporation will not, without the prior written consent of the Subscriber Party, effect any settlement of a pending or threatened action with respect to which an Subscriber Party is, or is informed that it may be, made a party and for which it would be entitled to indemnification, unless the settlement includes an unconditional release of the Subscriber Party from all liability and claims which are the subject matter of the pending or threatened action.

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- (b) The remedies provided for in Section 14 and Section 15 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any Subscriber Party at law or in equity.

General

16. **Governing Law.** The contract arising out of this Subscription Agreement and all documents relating thereto shall be governed by and construed in accordance with the laws of the State of New York applicable therein. The parties irrevocably submit to the exclusive jurisdiction of the courts of the State of New York. **EACH OF THE CORPORATION AND THE SUBSCRIBER HEREBY WAIVES TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT TO ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS SUBSCRIPTION AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR DISPUTES RELATING HERETO. EACH OF THE CORPORATION AND THE SUBSCRIBER (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN TO ENTER INTO THIS SUBSCRIPTION AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.**
17. **Time of the Essence.** Time shall be of the essence hereof.
18. **Entire Agreement.** This Subscription Agreement represents the entire agreement of the parties hereto relating to the subject matter hereof and there are no representations, covenants or other agreements relating to the subject matter hereof except as stated or referred to herein.
19. **Assignment.** The terms and provisions of this Subscription Agreement shall be binding upon and enure to the benefit of the Subscriber and the Corporation and their respective heirs, executors, administrators, successors and assigns. This Subscription Agreement shall not be assignable by any party without prior written consent of the other parties.
20. **Survival.** The representations, warranties, covenants and agreements of the Corporation and the Subscriber contained in this Subscription Agreement shall survive Closing and shall remain in full force and effect for a period of two (2) years following the Closing Date.

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21. **Modification.** Neither this Subscription Agreement nor any provision hereof shall be modified, changed, discharged or terminated except by an instrument in writing signed by the party against whom any waiver, change, discharge or termination is sought.
22. **Severability.** The invalidity, illegality or unenforceability of any provision of this Subscription Agreement shall not affect the validity, legality or enforceability of any other provision hereof and, in the event that any court of competent jurisdiction shall determine that any one or more of the provisions or part of the provisions contained in this Subscription Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, this Subscription Agreement shall be reformed and construed as if such invalid or illegal or unenforceable provision, or part of such provision, had never been contained herein, so that such provisions would be valid, legal and enforceable to the maximum extent possible.
23. **Currency.** In this Subscription Agreement, references to “\$” or “USDS\$” are to United States dollars.
24. **Language of Documents.** It is the express wish of the parties to this Subscription Agreement that this Subscription Agreement and all related documents be drafted in English. Les parties aux présentes conviennent et exigent que cette convention ainsi que tous les documents s’y rattachant soient rédigés en langue anglaise.
25. **Execution by Facsimile and Counterparts.** This Subscription Agreement, including the schedules hereto, may be executed in any number of counterparts (including counterparts by facsimile) and all such counterparts taken together will be deemed to constitute one and the same document. If the Subscriber does not deliver a complete copy of this Subscription Agreement to the Corporation, the Corporation shall be entitled to assume that the Subscriber accepts and agrees with all of the terms and conditions of this Subscription Agreement on the pages not delivered at the Closing Time unaltered.
26. **Publicity.** The Corporation shall afford the Subscriber and its counsel with a reasonable opportunity to review and comment upon, shall consult with the Subscriber and its counsel on the form and substance of, and shall give due consideration to all such comments from the Subscriber or its counsel on, any press release, Commission filing or any other public disclosure made by or on behalf of the Corporation relating to the Subscriber, its purchase hereunder or any aspect of the Transaction Documents or the transactions contemplated thereby, prior to the issuance, filing or public disclosure thereof.
27. **Notices.** Any notice, demand, request, waiver or other communication required or permitted to be given hereunder shall be in writing and shall be effective (a) upon hand delivery or electronic mail delivery at the address or number designated below (if delivered on a business day during normal business hours where such notice is to be received), or the first business day following such delivery (if delivered other than on a business day during normal business hours where such notice is to be received) or (b) on the second business day following the date of mailing by express courier service, fully prepaid, addressed to such address, or upon actual receipt of such mailing, whichever shall first occur. The address for such communications shall be:

If to the Corporation:

Aptose Biosciences Inc.
12770 High Bluff Drive, Suite 120
San Diego, CA 92130, USA

Attention: [***]
Email: [***]

With a copy (which shall not constitute notice) to:

McCarthy Tétrault LLP
500, Grande Allée Est, 9e étage
Québec QC G1R 2J7

Attention: [***]
Email: [***]

With a copy (which shall not constitute notice) to:

Dorsey & Whitney LLP
1400 Wewatta Street, Suite 400
Denver, CO 80202

Attention: [***]
Email: [***]

If to the Subscriber:

Hanmi Pharmaceutical Co., Ltd.
14 Wiryeseong-daero, Songpa-gu,
Seoul, 05545, Korea

Telephone Number: [***]
Email: [***]
Attention: [***]

With a copy (which shall not constitute notice) to:

Stikeman Elliott LLP
4200 Bankers Hall West
Calgary, Alberta, Canada
T2P 5C5

Attention: [***]
Email: [***]

Either party hereto may from time to time change its address for notices by giving at least five (5) days' advance written notice of such changed address to the other party hereto.

28. **Headings.** The article, section and subsection headings in this Subscription Agreement are for convenience only and shall not constitute a part of this Subscription Agreement for any other purpose and shall not be deemed to limit or affect any of the provisions hereof. Unless the context clearly indicates otherwise, each pronoun herein shall be deemed to include the masculine, feminine, neuter, singular and plural forms thereof. The terms “including,” “includes,” “include” and words of like import shall be construed broadly as if followed by the words “without limitation.” The terms “herein,” “hereunder,” “hereof” and words of like import refer to this entire Subscription Agreement instead of just the provision in which they are found.

ANNEX 1
DEFINITIONS

“**Affiliate**” means any Person that, directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with a Person, as such terms are used in and construed under Rule 144. With respect to the Subscriber, without limitation, any Person owning, owned by, or under common ownership with the Subscriber, and any investment fund or managed account that is managed on a discretionary basis by the same investment manager as the Subscriber will be deemed to be an Affiliate.

“**Code**” means the Internal Revenue Code of 1986, as amended.

“**Commission**” means the U.S. Securities and Exchange Commission or any successor entity.

“**Commission Documents**” shall mean (1) all reports, schedules, registrations, forms, statements, information and other documents filed with or furnished to the Commission by the Corporation pursuant to the reporting requirements of the Exchange Act or Securities Act, as applicable, including all material filed with or furnished to the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, since December 31, 2022, including, without limitation, the Annual Report on Form 10-K filed by the Corporation for its fiscal year ended December 31, 2022 (the “**2022 Form 10-K**”), and which hereafter shall be filed with or furnished to the Commission by the Corporation, including, without limitation, the Current Report, (2) each Registration Statement, as the same may be amended from time to time, the Prospectus contained therein and each Prospectus Supplement thereto and (3) all information contained in such filings and all documents and disclosures that have been and heretofore shall be incorporated by reference therein.

“**Common Shares Equivalents**” means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Shares, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Shares.

“**Current Report**” means a current report on Form 8-K describing the material terms of the transactions contemplated by the Transaction Documents, including, without limitation, the issuance of the Purchased Shares and the Purchased Warrants to the Subscriber, and attaching as exhibits thereto copies of each of this Subscription Agreement, the Investor Rights Agreement, the Purchased Warrants and, if applicable, any press release issued by the Corporation disclosing the execution of this Subscription Agreement by the Corporation, including all exhibits thereto.

“**DTC**” means The Depository Trust Corporation, a subsidiary of The Depository Trust & Clearing Corporation, or any successor thereto.

“**DWAC**” shall mean Deposit/Withdrawal at Custodian.

“**EDGAR**” means the Commission’s Electronic Data Gathering, Analysis and Retrieval System.

“**Exchange Act**” means the *United States Securities Exchange Act of 1934*, as amended, and the rules and regulations of the Commission thereunder.

“**Investor Rights Agreement**” shall have the meaning assigned to such term in Section 10(f).

“**Knowledge**” means, with respect to the Corporation, the actual knowledge of the Corporation’s Chief Executive Officer Chief Medical Officer, and President, its Chief Financial Officer and Treasurer, and its General Counsel, in each case after reasonable inquiry of all officers, directors and employees of the Corporation and its Subsidiaries under their direct supervision who would reasonably be expected to have knowledge or information with respect to the matter in question.

“**Material Adverse Effect**” means any material adverse effect on (i) the enforceability of any Transaction Document, (ii) the results of operations, assets, business or financial condition of the Corporation and its Subsidiaries, taken as a whole, other than any material adverse effect that resulted primarily from (A) any change in the United States or foreign economies or securities or financial markets in general, (B) any change that generally affects the industry in which the Corporation and its Subsidiaries operate, (C) any change arising in connection with earthquakes, hostilities, acts of war, sabotage or terrorism or military actions or any escalation or material worsening of any such hostilities, acts of war, sabotage or terrorism or military actions existing as of the date hereof, (D) any action taken by the Subscriber, its Affiliates or its or their successors and assigns with respect to the transactions contemplated by this Subscription Agreement and the Investor Rights Agreement, (E) the effect of any change in applicable laws or accounting rules, or (F) any change resulting from compliance with terms of this Subscription Agreement or the Investor Rights Agreement or the consummation of the transactions contemplated by this Subscription Agreement and the Investor Rights Agreement, or (iii) the Corporation’s ability to perform in any material respect on a timely basis its obligations under any Transaction Document to which it is a party to be performed as of the date of determination.

“**Person**” means any person or entity, whether a natural person, trustee, corporation, partnership, limited partnership, limited liability company, trust, unincorporated organization, business association, firm, joint venture, governmental agency or authority.

“**Prospectus**” means the prospectus in the form included in a Registration Statement, as supplemented from time to time by any Prospectus Supplement, including the documents incorporated by reference therein.

“**Prospectus Supplement**” means any prospectus supplement to the Prospectus filed with the Commission from time to time pursuant to Rule 424(b) under the Securities Act, including the documents incorporated by reference therein.

“**Public Offering**” shall mean the public offering of the Corporation as set forth on the Registration Statement on FormS-1 (Registration No. 333-275870).

“**Registrable Securities**” shall have the meaning assigned to such term in the Investor Rights Agreement.

“**Registration Statement**” shall mean a “registration statements” as such term is used in the Investor Rights Agreement.

“**Regulation D**” shall have the meaning assigned to such term in the recitals of this Subscription Agreement.

“**Rule 144**” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect.

“**Securities Act**” shall mean the *Securities Act of 1933*, as amended, and the rules and regulations of the Commission thereunder.

“**SEDAR+**” means the Canadian Securities Administrators’ national system for filings, disclosure, payments and information searching in Canada’s capital markets.

“**Subsidiary**” and “**Subsidiaries**” shall have the meanings assigned to such terms in Section 12(g).

“**Underwriter**” shall have the meanings assigned to such term in Section 6.

“**Underwriting Agreement**” shall have the meanings assigned to such term in Section 6.

SCHEDULE A
CLOSING CERTIFICATE OF THE CORPORATION
CLOSING CERTIFICATE

•, 2024

The undersigned, Fletcher Payne, Senior Vice President, Chief Financial Officer and Secretary of Aptose Biosciences Inc., a corporation organized under the laws of Canada (the “**Corporation**”), delivers this certificate in connection with the Subscription Agreement, dated as of •, 2024 (the “**Subscription Agreement**”), by and between the Corporation and Hanmi Pharmaceutical Co., Ltd., a Korean company (the “**Subscriber**”), and hereby certifies on the date hereof that (capitalized terms used herein without definition have the meanings assigned to them in the Subscription Agreement):

1. The undersigned is the duly appointed Senior Vice President, Chief Financial Officer and Secretary of the Corporation.
2. As of the date hereof, the Corporation has no knowledge of a material fact or material change with respect to the Corporation within the meaning of Applicable Securities Laws that has not been generally disclosed.
3. Attached hereto as Exhibit A is a true, complete and correct copy of the Certificate of Incorporation of the Corporation, as amended through the date hereof, as filed with the Director pursuant to the *Canada Business Corporations Act*. The Certificate of Incorporation of the Corporation has not been further amended or restated, and no document with respect to any amendment to the Certificate of Incorporation of the Corporation has been filed with the Director pursuant to the *Canada Business Corporations Act* since the date shown on the face of the state certification relating to the Corporation’s Certificate of Incorporation, which is in full force and effect on the date hereof, and no action has been taken by the Corporation in contemplation of any such amendment or the dissolution, merger or consolidation of the Corporation.
4. Attached hereto as Exhibit B is a true and complete copy of the Bylaws of the Corporation, as amended and restated through, and as in full force and effect on, the date hereof, and no proposal for any amendment, repeal or other modification to the Bylaws of the Corporation has been taken or is currently pending before the Board of Directors or shareholders of the Corporation.
5. The Board of Directors of the Corporation has approved the transactions contemplated by the Transaction Documents; said approval has not been amended, rescinded or modified and remains in full force and effect as of the date hereof. Attached hereto as Exhibit C are true, correct and complete copies of the resolutions duly adopted by the Board of Directors of the Corporation as of [____], 2023.
6. Each person who, as an officer of the Corporation, or as attorney-in-fact of an officer of the Corporation, signed the Transaction Documents to which the Corporation is a party, was duly elected, qualified and acting as such officer or duly appointed and acting as such attorney-in-fact, and the signature of each such person appearing on any such document is his genuine signature.

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7. The representations and warranties of the Corporation contained in Sections 12(f) to 12(kk) of the Subscription Agreement are true and correct, in all material respects, as of the date hereof with the same force and effect as if made at and as of the date hereof after giving effect to the transactions contemplated by the Subscription Agreement provided in each case that representations and warranties made as of a specific date shall be required to be so true and correct as of such date only.
 8. The representations and warranties of the Corporation contained in Sections 12(a) to 12(e) of the Subscription Agreement are true and correct as of the date hereof with the same force and effect as if made at and as of the date hereof after giving effect to the transactions contemplated by the Subscription Agreement provided in each case that representations and warranties made as of a specific date shall be required to be so true and correct as of such date only.
 9. The representations and warranties contained in the Underwriting Agreement and which are incorporated by reference in the Subscription Agreement are true and correct as of the date hereof with the same force and effect as if made at and as of the date hereof after giving effect to the transactions contemplated by the Subscription Agreement provided in each case that representations and warranties made as of a specific date shall be required to be so true and correct as of such date only.
 10. The Corporation has performed all the covenants in the Subscription Agreement to be complied with by the Corporation (unless waived by the Subscriber) at or prior to the Closing Time.

(Signature page follows)

IN WITNESS WHEREOF, I have signed my name as of the date first above written.

BY: _____
NAME: FLETCHER PAYNE
TITLE: SENIOR VICE PRESIDENT, CHIEF
FINANCIAL OFFICER AND SECRETARY

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SCHEDULE B
CLOSING CERTIFICATE OF THE SUBSCRIBER
CLOSING CERTIFICATE

•, 2024

The undersigned, Jae Hyun Park, Chief Executive Officer of Hanmi Pharmaceutical Co., Ltd., a corporation incorporated under the laws of the Republic of Korea (the “**Subscriber**”), delivers this certificate in connection with the Subscription Agreement, dated as of •, 2024 (the “**Subscription Agreement**”), by and between the Subscriber and Aptose Biosciences Inc. (the “**Corporation**”), and hereby certifies on the date hereof that (capitalized terms used herein without definition have the meanings assigned to them in the Subscription Agreement):

1. The undersigned is the duly appointed Chief Executive Officer of the Subscriber.
2. As of the date hereof, the Subscriber has no knowledge of a material fact or material change with respect to the Corporation within the meaning of Applicable Securities Laws that has not been generally disclosed.
3. Each person who, as an officer of the Subscriber, or as attorney-in-fact of an officer of the Subscriber, signed the Transaction Documents to which the Subscriber is a party, was duly elected, qualified and acting as such officer or duly appointed and acting as such attorney-in-fact, and the signature of each such person appearing on any such document is his genuine signature.
4. The representations and warranties of the Subscriber contained in Sections 11(e), 11(h), 11(t) to 11(v), and 11(x) to 11(dd) of the Subscription Agreement are true and correct, in all material respects, as of the date hereof with the same force and effect as if made at and as of the date hereof after giving effect to the transactions contemplated by the Subscription Agreement provided in each case that representations and warranties made as of a specific date shall be required to be so true and correct as of such date only.
5. The representations and warranties of the Subscriber contained in Sections 11(a) to 11(d), 11(g), 11(i) to 11(s), and 11(w) of the Subscription Agreement are true and correct as of the date hereof with the same force and effect as if made at and as of the date hereof after giving effect to the transactions contemplated by the Subscription Agreement provided in each case that representations and warranties made as of a specific date shall be required to be so true and correct as of such date only.
6. The Subscriber has performed all the covenants in the Subscription Agreement to be complied with by the Subscriber (unless waived by the Corporation) at or prior to the Closing Time.

(Signature page follows)

IN WITNESS WHEREOF, I have signed my name as of the date first above written.

BY: _____
NAME: JAE HYUN PARK
TITLE: CHIEF EXECUTIVE OFFICER

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Certain portions of this Exhibit have been redacted pursuant to Item 601(b)(10) of Regulation S-K and, where applicable, have been marked with “[***]” to indicate where redactions have been made. The marked information has been redacted because it is both (i) not material and (ii) is the type of information the Corporation treats as private and confidential.

AMENDED AND RESTATED INVESTOR’S RIGHTS AGREEMENT

This INVESTOR’S RIGHTS AGREEMENT (this “**Agreement**”), is made as of September 6, 2023 and amended and restated January 25, 2024, by and between Aptose Biosciences Inc., a Canadian corporation (the “**Corporation**”), and Hanmi Pharmaceutical Co., Ltd., a corporation incorporated under the laws of the Republic of Korea (the “**Investor**”).

RECITALS

WHEREAS, the Corporation and the Investor are parties to that certain Common Share Subscription Agreement dated September 6, 2023 (the “**Subscription Agreement**”) whereby the Corporation agreed, upon the terms and subject to the conditions set forth in the Subscription Agreement, to issue and sell to the Investor common shares of the Corporation (the “**Common Shares**”);

AND WHEREAS, in order to induce the Corporation to enter into the Subscription Agreement and to induce the Investor to invest funds in the Corporation pursuant to the Subscription Agreement, the Investor and the Corporation agreed that this Agreement shall govern the rights of the Investor to cause the Corporation to register the Common Shares issuable to the Investor, to receive certain information from the Corporation, and to participate in future equity offerings by the Corporation, and shall govern certain other matters as set forth in this Agreement;

AND WHEREAS the Corporation and the Investor have agreed that the Investor’s obligation to make the Second Investment (as defined in the Subscription Agreement) will be fulfilled and satisfied upon the closing of the acquisition by the Investor of such number of Purchased Shares and Purchased Warrants as set forth and defined in, and contemplated by, a subscription agreement dated January 25, 2024 between the Corporation and the Investor (the “**New Subscription Agreement**”), subject to certain conditions as set forth therein;

AND WHEREAS the parties have agreed to amend and restate this Agreement to reflect the implications of the fulfilment and satisfaction of the Subscription Agreement and the entrance into of the New Subscription Agreement and the completion of the transactions contemplated therein;

NOW, THEREFORE, the parties hereby agree as follows:

1. **Definitions.** For purposes of this Agreement:

1.1 “**Affiliate**” means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including, without limitation, any general partner, managing member, officer, director or trustee of such Person, or any venture capital fund or other investment fund now or hereafter existing that is controlled by one (1) or more general partners, managing members or investment adviser of, or shares the same management company or investment adviser with, such Person.

1.2 “**Board of Directors**” means the board of directors of the Corporation.

1.3 “**Damages**” means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Corporation, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.4 “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.5 “**Form S-1**” means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.6 “**Form S-3**” means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits forward incorporation of substantial information by reference to other documents filed by the Corporation with the SEC.

1.7 “**holder**” means any holder of Registrable Securities who is a party to this Agreement.

1.8 “**Immediate Family Member**” means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, life partner or similar statutorily-recognized domestic partner, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships of a natural person referred to herein.

1.9 “**Person**” means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.10 “**Registrable Securities**” means the Common Shares.

1.11 “**Registration Statement**” means the registration statement or registration statements of the Corporation filed under the 1933 Act covering the Registrable Securities.

1.12 “**Registrable Securities then outstanding**” means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.13 “**SEC**” means the Securities and Exchange Commission.

1.14 “**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.15 “**Selling Expenses**” means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Corporation as provided in Section 2.5.

2. Registration Rights. The Corporation covenants and agrees as follows:

2.1 Demand Registration. Investor may make a written demand to the Corporation for registration of all or part of its Registrable Securities, which written demand shall describe the amount and type of securities to be included in such registration and the intended method(s) of distribution thereof (such written demand a “**Demand Registration**”); provided, however, that an Investor may not request a Demand Registration unless the class of securities of the Corporation subject to the Demand Registration are registered pursuant to Section 12(b) of the Exchange Act. Upon receipt by the Corporation of such written request for a Demand Registration from an Investor, the Investor shall be entitled to have its Registrable Securities included in a registration at the cost and expense of the Corporation and the Corporation shall effect, as soon thereafter as is commercially reasonable, the registration of all Registrable Securities requested by the Investor pursuant to such request for a Demand Registration, including by filing a Registration Statement on an appropriate form under the Securities Act relating thereto as soon as practicable, but not more than forty five (45) days immediately after the Corporation’s receipt of the request for a Demand Registration. Under no circumstances shall the Corporation be obligated to (i) effect more than an aggregate of two (2) Demand Registrations with respect to any or all of an Investor’s Registrable Securities, and never more than one (1) Demand Registration in a twelve (12) month period and (ii) proceed if the required minimum offering size of at least US\$3.5 million is not met; provided, however, that a registration pursuant to a request for a Demand Registration shall not be counted for such purposes unless a Registration Statement with respect to such request for a Demand Registration has become effective and all of the Registrable Securities requested by the Investor to be registered have been sold.

Notwithstanding the foregoing obligations, if the Corporation furnishes to holders requesting a registration pursuant to this Section 2.1 a certificate signed by the Corporation’s chief executive officer stating that in the good faith judgment of the Board of Directors it would be materially detrimental to the Corporation and its shareholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Corporation; (ii) require premature disclosure of material information that the Corporation has a bona fide business purpose for preserving as confidential; or (iii) render the Corporation unable to comply with requirements under the Securities Act or Exchange Act, then the Corporation shall have the right to defer taking action with respect to such filing for a period of not more than sixty (60) days after the request; provided, however, that the Corporation may not invoke this right more than once in any twelve (12) month period; and provided further that the Corporation shall not register any securities for its own account or that of any other stockholder during such sixty (60) day period.

2.2 **Piggyback Registration.** If the Corporation proposes to file a Registration Statement under the Securities Act, with respect to an offering of equity securities, or securities or other obligations exercisable or exchangeable for, or convertible into equity securities, for its own account or for the account of shareholders of the Corporation, including with respect to an initial public offering (other than a Registration Statement (i) filed in connection with any employee share option or other benefit plan, or (ii) for a dividend reinvestment plan or a Registration Statement for a rights offering or an exchange offer or offering of securities solely to the Corporation's then existing shareholders), then the Corporation shall give written notice of such proposed filing to the Investor as soon as practicable but not less than thirty (30) days before the anticipated filing date of such Registration Statement, which notice shall (A) describe the amount and type of securities to be included in such offering, the intended method(s) of distribution, including pricing, and the name of the proposed managing underwriter or underwriters, if any, in such offering, and (B) offer to the Investor the opportunity, but not the obligation, to register the sale or qualify the distribution, as applicable, of such number of Registrable Securities as the Investor may request in writing within ten (10) days after receipt of such written notice (such registration a "**Piggyback Registration**"). The Corporation shall, in good faith, cause such Registrable Securities to be included in such Piggyback Registration at its cost and expense and shall use its commercially reasonable efforts to cause the managing underwriter or underwriters of a proposed underwritten offering to permit the Registrable Securities requested by 2.2 to be included in a Piggyback Registration on the same terms and conditions as any similar securities of the Corporation included in such registration or Prospectus, as applicable, and to permit the sale or other disposition of such Registrable Securities in accordance with the intended method(s) of distribution thereof.

Notwithstanding Section 2.2, in connection with a Piggyback Registration, the managing underwriter or underwriters may impose a limitation on the number of Registrable Securities or on the number or kind of other securities which may be included in any such distribution because, in its or their reasonable judgment all of the Registrable Securities that the Corporation proposes to include in such distribution may not be sold in an orderly manner within a price range reasonably acceptable to the Corporation or marketing factors require the limitation of the number of securities which may be included in such distribution. The Corporation shall be required to include in such distribution the part of the Registrable Securities which is determined by such managing underwriters according to the following priority: (a) first, the securities offered by the Corporation on its own behalf; (b) second, if there are additional securities which may be underwritten within a price range reasonably acceptable to the Corporation, considering marketing factors, without leading to undue repercussions on the distribution of the securities offered after taking into account the inclusion of all the securities required under paragraph (a) above, the Registrable Securities which the Investor has required to be included, based on the number of Registrable Securities which the Investor owns or over which it exercises control.

2.3 Obligations of the Corporation. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Corporation shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the holder refrains, at the request of an underwriter of Common Shares (or other securities) of the Corporation, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to sixty (60) days, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling holders; provided that the Corporation shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Corporation is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Corporation are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling holders, any underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling holders, all financial and other records, pertinent corporate documents, and properties of the Corporation, and cause the Corporation's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling holder, promptly after the Corporation receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling holder of any request by the SEC that the Corporation amend or supplement such registration statement or prospectus.

In addition, the Corporation shall ensure that, at all times after any registration statement covering a public offering of securities of the Corporation under the Securities Act shall have become effective, its insider trading policy shall provide that the Corporation's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.4 Furnish Information. It shall be a condition precedent to the obligations of the Corporation to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling holder that such holder shall furnish to the Corporation such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such holder's Registrable Securities; provided, however, in no event shall the liability of the Investor with regard to such information exceed the net proceeds received by the Investor from the sale of such Registrable Securities..

2.5 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Corporation; and the reasonable fees and disbursements of one counsel for the selling holders selected by holders of a majority of the Registrable Securities to be registered ("**Selling Holder Counsel**"), shall be borne and paid by the Corporation; provided, however, that the Corporation shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 if the registration request is subsequently withdrawn at the request of the Investor (in which case the Investor and all selling holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration); provided further that if, at the time of such withdrawal, the Investor shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Investor at the time of its request and has withdrawn the request after learning of such information then the Investor shall not be required to pay any of such expenses and shall not forfeit its right to a registration pursuant to Section 2.1. All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.6 Delay of Registration. No holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.7 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Corporation will indemnify and hold harmless each selling holder, and the partners, members, officers, directors, and shareholders of each such holder; legal counsel and accountants for each such holder; any underwriter (as defined in the Securities Act) for each such holder; and each Person, if any, who controls such holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Corporation will pay to each such holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.7(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Corporation, which consent shall not be unreasonably withheld, nor shall the Corporation be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration except to the extent such information has been corrected in a subsequent writing prior to or concurrently with the sale of Registrable Securities to the Person asserting the claim.

(b) To the extent permitted by law, each selling holder, severally and not jointly, will indemnify and hold harmless the Corporation, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Corporation within the meaning of the Securities Act, legal counsel and accountants for the Corporation, any underwriter (as defined in the Securities Act), any other holder selling securities in such registration statement, and any controlling Person of any such underwriter or other holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling holder expressly for use in connection with such registration and has not been corrected in a subsequent writing prior to or concurrently with the sale of Registrable Securities to the Person asserting the claim; and each such selling holder will pay to the Corporation and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.7(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any holder by way of indemnity or contribution under Section 2.7(b) and 2.7(d) exceed the proceeds from the offering received by such holder (net of any Selling Expenses paid by such holder), except in the case of fraud or willful misconduct by such holder.

(c) Promptly after receipt by an indemnified party under this Section 2.7 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.7, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.7, only to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.7.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.7 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.7 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.7, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case (x) no holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a holder's liability pursuant to this Section 2.7(d), when combined with the amounts paid or payable by such holder pursuant to Section 2.7(b), exceed the proceeds from the offering received by such holder (net of any Selling Expenses paid by such holder), except in the case of willful misconduct or fraud by such holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control; provided, however, that any matter expressly provided for or addressed by the foregoing provisions that is not expressly provided for or addressed by the underwriting agreement shall be controlled by the foregoing provisions.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Corporation and holders under this Section 2.7 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement or any provision(s) of this Agreement.

2.8 Termination of Registration Rights. The right of any holder to request registration or inclusion of Registrable Securities in any registration pursuant to Sections 2.1 or 2.2 shall terminate upon the earliest to occur of:

(a) such time as an exemption under the Securities Act is available for the sale of all of such holder's shares without limitation, during a three (3)-month period without registration (and without the requirement for the Corporation to be in compliance with the current public information required under subsection (c)(1) of Rule 144 of the Securities Act) and such holder (together with its "affiliates" determined under Rule 144 of the Securities Act) holds less than one percent (1%) of the outstanding capital stock of the Corporation; and

(b) the third (3rd) anniversary of the date of this Agreement (or such later date that is one hundred eighty (180) days following the expiration of all deferrals of the Corporation's obligations pursuant to Section 2).

3. Information Rights.

3.1 Delivery of Financial Statements. The Corporation shall deliver to the Investor:

(a) as soon as practicable, but in any event within ninety (90) days after the end of each fiscal year of the Corporation and concurrent with the public filing of such documents (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, and a comparison between (x) the actual amounts as of and for such fiscal year and (y) the comparable amounts for the prior year, and (iii) a statement of shareholders' equity as of the end of such year;

(b) as soon as practicable, but in any event within forty-five (45) days after the end of each quarter of each fiscal year of the Corporation and concurrent with the public filing of such documents, unaudited statements of income and cash flows for such fiscal quarter, and an unaudited balance sheet and a statement of shareholders' equity as of the end of such fiscal quarter; and

(c) as soon as practicable after the approval by the Board of Directors, but in any event forty-five (45) days after the end of each fiscal year, a budget (the "**Budget**") and business plan for the next fiscal year, prepared on a yearly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Corporation.

3.2 Confidentiality. The Investor agrees that it will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor or make decisions with respect to its investment in the Corporation) any confidential information obtained from the Corporation pursuant to the terms of this Agreement (including notice of the Corporation's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general, (b) is or has been independently developed or conceived by the Investor without use of the Corporation's confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Corporation; provided, however, that then Investor may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent reasonably necessary to obtain their services in connection with monitoring its investment in the Corporation; (ii) to any Affiliate, partner, member, shareholder, or wholly owned subsidiary of the Investor in the ordinary course of business, provided that the Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iii) as may otherwise be required by law, regulation, rule, court order or subpoena, provided that the Investor promptly notifies the Corporation of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

4. Participation in Future Financings, Exempt Issuances

4.1 Participation in Future Financings.

(a) From the Closing Date for the Offering (each as defined in the New Subscription Agreement), provided that if the Closing Date for the Offering has not occurred by June 30, 2024, then from July 1, 2024, until the eighteen (18) month anniversary of this Agreement, upon any issuance by the Corporation or any of its Affiliates of Common Shares or warrants, or convertible debt for cash consideration (a "**Subsequent Financing**"), the Investor shall have the right to participate in up to an amount of the Subsequent Financing equal to that percentage of the Subsequent Financing equal to the Investor's percentage ownership of the Common Shares, calculated as of any determination date assuming the conversion or exercise of all Registrable Securities and the conversion or exercise of all other securities of the Corporation owned by the Investor, on the same terms, conditions and price provided for in the Subsequent Financing.

(b) At least fifteen (15) Business Days prior to the closing of the Subsequent Financing, the Corporation shall deliver to the Investor a written notice of its intention to effect a Subsequent Financing, including a description in reasonable detail of the proposed terms of such Subsequent Financing, the amount of proceeds intended to be raised thereunder and the Person or Persons through or with whom such Subsequent Financing is proposed to be effected and shall include a term sheet or similar document relating thereto as an attachment (a "**Financing Notice**").

(c) The Investor desiring to participate in such Subsequent Financing must provide written notice to the Corporation by not later than 5:30 p.m. (Eastern time) on the 5th Business Day after the Investor has received the Financing Notice that the Investor is willing to participate in the Subsequent Financing, the amount of the Investor's participation, and that the Investor has such funds ready, willing, and available for investment on the terms set forth in the Financing Notice. If the Corporation receives no notice from the Investor as of such 5th Business Day, the Investor shall be deemed to have notified the Corporation that it does not elect to participate.

(d) If by 5:30 p.m. (Eastern time) on the 5th Business Day after the Investor has received the Financing Notice, notifications by the Investor of its willingness to participate in the Subsequent Financing (or to cause their designees to participate) is, in the aggregate, less than the total amount of the Subsequent Financing, then the Corporation may effect the remaining portion of such proposed Subsequent Financing on the terms and with the Persons set forth in the Financing Notice.

(e) The Corporation must provide the Investor with a second Financing Notice, and the Investor will again have the right of participation set forth above in this Section 4, if the Subsequent Financing subject to the initial Financing Notice is not consummated for any reason on the terms set forth in such Financing Notice within 40 Business Days after the date of the initial Financing Notice.

(f) Notwithstanding the foregoing, this Section 4 shall not apply in respect of (i) an Exempt Issuance, (ii) an underwritten public offering of Common Shares or (iii) "at the market" offerings. "**Exempt Issuance**" means the issuance of (a) Common Shares, options, stock appreciation rights, restricted stock, restricted stock units or dividend equivalents to employees, consultants, officers or directors of the Corporation pursuant to any stock or option plan duly adopted for such purpose by a majority of the non-employee members of the Board of Directors of the Corporation or a majority of the members of a committee of non-employee directors of the Corporation established for such purpose, (b) securities upon the exercise or exchange of or conversion of any securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into Common Shares issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise, exchange or conversion price of such securities, (c) shares issuable to institutional lenders to the Corporation in connection with a loan transaction, and (d) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Corporation, provided that any such issuance shall not include a transaction in which the Corporation is issuing securities primarily for the purpose of raising capital, including to finance such acquisitions or strategic transactions, or to an entity whose primary business is investing in securities.

4.2 Exempt Issuance. In the event that the Corporation issues any equity securities in any transaction not expressly covered by Section 4.1, including any Exempt Issuance, then the Corporation shall promptly (but in no event later than ten (10) Business Days from such issuance of equity securities) notify the Investor in writing of any such issuance and the Investor shall have the right, but not the obligation, to purchase Common Shares on the applicable stock market where the Common Shares are publicly traded in order to keep the Investor's percentage of ownership unchanged (i.e., the same percentage as it was prior to such issuance).

5. Appointment of Investor Nominee(s).

5.1 For so long as the Investor beneficially owns, directly or indirectly, in the aggregate, at least ten percent (10%) of the issued and outstanding Common Shares of the Corporation on a non-diluted basis (the “**Ownership Threshold**”) and subject to Section 6, the Investor shall be entitled, on notice in writing to the Corporation, to nominate for appointment to the Corporation one or more individuals at a time that is legally able to work in the United States or Canada (each an “**Investor Nominee**”) to a position or positions within the Corporation in applicable areas based on each Investor Nominee’s skills, education and experience and the Corporation shall use its best commercial efforts to retain each such Investor Nominee in the appropriate technical area, on the following terms and conditions:

(a) subject to section 5.3, the Investor Nominee shall be engaged by the Corporation on an exclusive and full-time basis or part-time basis, as the case may be, as advised by the Investor at the time of providing notice of such Investor Nominee;

(b) the Investor Nominee shall be subject to the Corporation’s usual employment rules, practices, policies, evaluation process and procedures, as amended from time to time and the Corporation shall retain the right, in its sole discretion, to terminate such Investor Nominee’s appointment with the Corporation for violations of the Corporation’s employment rules, practices, policies and procedures;

(c) the Investor Nominee shall be entitled to salary, bonus, vacation, incentive payments and bonuses, expenses, allowances and any applicable benefits in amounts and to the extent consistent with employees of the Corporation serving or having recently served in a similar capacity with the Corporation with such amounts to be reimbursed to the Corporation by the Investor; and

(d) such other terms and conditions as are customary and appropriate for an employee of the Corporation and in accordance with applicable law.

5.2 Once per calendar year (unless otherwise agreed upon by the parties), the Investor shall be entitled, on notice in writing to the Corporation, to replace any Investor Nominee with an alternative Investor Nominee and the Corporation shall use its best commercial efforts to facilitate, at the entire expense of the Investor, the termination without cause of the exiting Investor Nominee (including without limitation the payment, to be reimbursed to the Corporation by the Investor, of all amounts for salary, bonus, vacation pay, overtime pay, benefits, expenses, allowances, termination pay, statutory notice, payment in lieu of notice, reasonable notice of termination and any vacation pay related thereto or any other amounts payable by virtue of any agreement, rules, practices, procedures or applicable law) and the contemporaneous (or as nearly contemporaneous as possible) retention of such alternative Investor Nominee on the terms and conditions contemplated by Section 5.1.

5.3 Concurrent with or following the appointment (or employment) of an Investor Nominee, the parties shall enter into a separate services agreement (the “**Service Agreement**”) upon such terms and conditions to be agreed upon by the parties, each acting reasonably. The Service Agreement will govern activities which the Corporation will have agreed to perform for the Investor (which may include but are not limited to CRO services and tuspentinib related work) (collectively, the “**Services**”). In addition to the Investor Nominee’s employment or similar obligations to the Corporation, the Investor Nominee shall be engaged to perform the Services, the entire expense for which, including any applicable mark-up, shall be stipulated in the Service Agreement and borne entirely by the Investor.

5.4 If any governmental approval or work permit (collectively, a “Permit”) is required by laws and/or regulations of Canada or the United States to enable the nominee to perform the services for Aptose, Aptose shall use its reasonable commercial efforts to assist the nominee in securing such Permit in a timely fashion.

6. Lapse of Investor Nominee and Other Rights

6.1 Investor ceases to hold Ten Percent (10%). In the event that the Investor beneficially owns, directly or indirectly, Common Shares below the Ownership Threshold for more than thirty (30) consecutive days, the Investor shall promptly provide written notice to the Corporation, then, the Corporation may, at its entire discretion, either terminate one or more Investor Nominee or recommend that one or more Investor Nominee remain in its position until a date determined by the Corporation. Upon written request of the Corporation, the Investor shall promptly confirm to the Corporation the number of Common Shares the Investor and its Affiliates then hold for the purposes of determining the Investor’s percentage of ownership. If the Investor owns less than the Ownership Threshold for more than thirty (30) consecutive days following receipt by the Corporation of a written notice from the Investor, (i) the investor nominee right set out in Section 5; (ii) the participation rights set out in Section 4; and (iii) the access to information right set out in Section 3, shall no longer apply.

7. Standstill

- (a) Except as otherwise provided in this Agreement and in the New Subscription Agreement, until September 6, 2024, the Investor shall not, and shall cause each of the Investor’s Affiliates not to:
 - (i) directly or indirectly purchase any Common Shares or securities convertible into Common Shares;
 - (ii) make or in any way participate, directly or indirectly in any “solicitation” of votes or proxies in respect of Common Shares and in any manner influence any other person or entity with respect to such “solicitation” or form, join or in any way participate in a proxy group with respect to the voting of any securities of the Corporation not held by the Investor, except a proxy solicitation by management in any meeting of Shareholders;
 - (iii) otherwise act alone or with others to seek to control the management, the Board of Directors or policies of the Corporation;
 - (iv) directly or indirectly make or participate in a tender offer or take-over bid to Shareholders, or propose a transaction to Shareholders involving a merger, arrangement, combination or amalgamation, or disposition of substantially all of the assets of the Corporation; or
 - (v) announce its intention to do any of the foregoing.

- (b) None of the provisions of this Section 7 shall be construed to (i) restrict the Investor from making confidential proposals to or communications with the Board of Directors and/or management of the Corporation with respect to any transaction, or (ii) prohibit the acquisition of such number of Common Shares allowing the Investor to maintain its shareholdings at the Investor's ownership percentage immediately after giving effect to both the First Investment as contemplated in the Subscription Agreement and the Offering as contemplated by the New Subscription Agreement.
- (c) The Investor's obligations under this Section 7 shall terminate immediately and cease to be of any force or effect on the date upon which (A) a third party, other than an Affiliate of the Investor makes a good faith public announcement of the commencement of a take-over bid to acquire 50% or more of the Common Shares; (B) the Corporation publicly announces the entering into of a definitive agreement to effect a change of control transaction; (C) a third-party (other than an Affiliate of the Investor) acquires at least 20% of the outstanding Common Shares or (D) the Board of Directors of the Corporation resolves to engage in a formal process that is intended to result in a transaction, which if consummated, would constitute a change of control transaction.

8. Miscellaneous.

8.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a holder to a transferee of Registrable Securities that (i) is an Affiliate of a holder; or (ii) is a holder's Immediate Family Member or trust for the benefit of an individual holder or one (1) or more of such holder's Immediate Family Members; provided, however, that (x) the Corporation is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Corporation to be bound by and subject to the terms and conditions of this Agreement. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate or shareholder of a holder; (2) who is a holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual holder or such holder's Immediate Family Member shall be aggregated together and with those of the transferring holder; provided further that all transferees who would not qualify individually for assignment of rights shall, as a condition to the applicable transfer, establish a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

8.2 Governing Law. This Agreement shall be governed by the internal law of the State of New York, without regard to conflict of law principles that would result in the application of any law other than the law of the State of New York.

8.3 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via electronic mail (including pdf or any electronic signature complying with the U.S. federal E-SIGN Act of 2000, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

8.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

8.5 Notices.

(a) All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent as to the Corporation to the principal office of the Corporation and to the attention of the Chief Executive Officer, or in any case to such email address or address as subsequently modified by written notice given in accordance with this Section 8.5. All communications shall be sent as to the Investor to Hanmi Pharmaceutical Co., Ltd., and to the attention of [***], Hanmi Pharmaceutical Co., Ltd., 14 Wiryeseongdae-ra, Songpa-gu, Seoul, 05545, Korea (email: [***]), or in any case to such email address or address as subsequently modified by written notice given in accordance with this Section 8.5. If notice is given to the Corporation, a copy (which copy shall not constitute notice) shall also be sent to (i) Charles-Antoine Soulière, McCarthy Tétrault LLP, 500, Grande Allée Est, 9e étage, Québec QC, Canada, G1R 2J7 (email: [***]) and (ii) Dan Miller, Dorsey & Whitney LLP, 1400 Wewatta Street, Suite 400, Denver, CO 80202 (email: [***]) and if notice is given to the Investor, a copy (which copy shall not constitute notice) shall also be given to Keith R. Chatwin, Stikeman Elliott LLP, 4200 Bankers Hall West, Calgary, Alberta, Canada, T2P 5C5 (email: [***]).

8.6 Amendments and Waivers. Any term of this Agreement may be amended, modified or terminated and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Corporation and the holders of at least a majority of the Registrable Securities then outstanding.

8.7 Severability. In case any one (1) or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

8.8 Aggregation of Common Shares: Apportionment. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

8.9 Entire Agreement. This Agreement (together with the New Subscription Agreement), constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

8.10 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or non-defaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Investor's Rights Agreement as of the date first written above.

APTOSE BIOSCIENCES INC.

By: /s/ Fletcher Payne

Name: Fletcher Payne

Title: Chief Financial Officer

HANMI PHARMACEUTICAL CO., LTD.

By: /s/ Jae Hyun Park

Name: Jae Hyun Park

Title: CEO



January 25, 2024

Hanmi Pharmaceutical Co., Ltd.
14 Wiryeseong-daero, Songpa-gu,
Seoul, 05545, Korea

Re: Completion of Funding Obligation under Subscription Agreement dated September 6, 2023 (the "Subscription Agreement") by and between Aptose Biosciences Inc. (the "Corporation") and Hanmi Pharmaceutical Co., Ltd. ("Hanmi").

Gentlemen:

This letter serves to confirm the agreement between the Corporation and Hanmi that the funding obligation of the Second Investment (as defined in the Subscription Agreement) as set forth in Section 1(b) of the Subscription Agreement (the "Funding Obligation") will be fully satisfied and discharged by Hanmi upon the closing (the "Closing") of the acquisition by Hanmi of such number of Purchased Shares and Purchased Warrants as set forth and defined in, and contemplated by, the subscription agreement dated January 25, 2024 between the Corporation and Hanmi (the "New Subscription Agreement"); *provided that* in the event that Closing fails to occur by virtue of the condition precedent set forth in Section 10(k) of the New Subscription Agreement not being fulfilled (and such non-fulfilment not being waived by Hanmi in its sole discretion), the Funding Obligation will nonetheless be fully satisfied and discharged. .

All other representations, warranties, covenants and terms of the Subscription Agreement, the New Subscription Agreement and the Amended and Restated Investor Rights Agreement dated January 25, 2024 by and between the Corporation and Hanmi will remain in full force and effect.

Very truly yours,

Aptose Biosciences Inc.

By: /s/ Fletcher Payne
Fletcher Payne
Senior Vice President and Chief Financial Officer

12770 High Bluff Drive
Suite 120
San Diego, CA 92130
U.S.A.

www.aplose.com





Accepted and Agreed to as of the date set forth above

Hanmi Pharmaceutical Co., Ltd.

By: /s/ Jae Hyun Park

Name: Jae Hyun Park

Title: Chief Executive Officer

12770 High Bluff Drive
Suite 120
San Diego, CA 92130
U.S.A.

www.aplose.com

