

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

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

APTOSE BIOSCIENCES INC.

(Exact Name of Registrant As Specified In Its Charter)

Canada
(State or other jurisdiction of
incorporation or organization)

2836
(Primary Standard Industrial
Classification Code Number)

98-1136802
(I.R.S. Employer
Identification Number)

251 Consumers Road, Suite 1105
Toronto, Ontario, Canada M2J 4R3
(647) 479-9828

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Aptose Biosciences U.S. Inc.
Unit 120, 12770 High Bluff Drive
San Diego, California 92130
(858) 926-2730

(Name, address, including zip code, and telephone number, including area code, of agent for service)

COPIES TO:

Daniel M. Miller
Dorsey & Whitney LLP
Suite 1070, 1095 West Pender
Street
Vancouver, British Columbia
Canada V6E 2M6

Fletcher Payne
Senior Vice President and
Chief Financial Officer
Aptose Biosciences Inc.
251 Consumers Road, Suite 1105
Toronto, Ontario
Canada M2J 4R3
(647) 479-9828

Ivan K. Blumenthal
Mintz, Levin, Cohn, Ferris,
Glovsky and Popeo, P.C.
919 Third Avenue
New York, NY 10022
(212) 692-6750

From time to time after the effective date of this Registration Statement
(Approximate date of commencement of proposed sale to the public)

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, please check the following box.

If this Form is used to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. 333-275870

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the Company is a large accelerated filer, an accelerated filer, anon-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the Company has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

This Registration Statement shall become effective upon filing in accordance with Rule 462(b) under the Securities Act of 1933, as amended.

EXPLANATORY NOTE

This Registration Statement is being filed by Aptose Biosciences Inc. (the "Corporation") pursuant to Rule 462(b) as promulgated under the Securities Act of 1933, as amended, and includes the registration statement facing page, this page, the signature page, an exhibit index and the required opinion and consents solely to register up to an aggregate of \$3,360,871 in additional (i) common shares, (ii) pre-funded warrants to purchase common shares, (iii) warrants to purchase common shares, (iv) common shares underlying pre-funded warrants, (v) common shares underlying warrants, (vi) underwriter's warrants to purchase common shares, (vii) common shares underlying underwriter's warrants and (viii) securities that may be sold upon exercise of the underwriter's over-allotment option. The contents of the Registration Statement on Form S-1 (Registration No. 333-275870), as amended, including the exhibits and powers of attorney included therein (the "Prior Registration Statement"), which was declared effective by the Securities and Exchange Commission on January 25, 2024, are incorporated by reference in this Registration Statement. The additional securities that are being registered for sale are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in Exhibit 107 to the Prior Registration Statement. The required opinion and consents are listed on the Exhibit Index attached hereto and filed herewith.

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS
EXHIBIT INDEX

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

Exhibit Number	Description of Document
5.1*	<u>Opinion of McCarthy Tétrault LLP</u>
5.2*	<u>Opinion of Dorsey & Whitney LLP related to the Warrants and Pre-Funded Warrants</u>
23.1*	<u>Consent of Independent Registered Public Accounting Firm (KPMG)</u>
23.2*	<u>Consent of McCarthy Tétrault LLP (included in Exhibit 5.1)</u>
23.3*	<u>Consent of Dorsey & Whitney LLP (included in Exhibit 5.2)</u>
24.1	<u>Powers of Attorney (Included on Signature Page of the Registrant's Registration Statement on FormS-1, filed on December 4, 2023 (File No. 333-275870))</u>
107*	<u>Filing Fees</u>

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Corporation certifies that it has reasonable grounds to believe that it meets all of the requirements for filing this on Form S-1 and has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Denver, Colorado, on January 25, 2024.

Aptose Biosciences Inc.

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

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Name	Positions	Date
* _____ William G. Rice	President, Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	January 25, 2024
/s/ Fletcher Payne _____ Fletcher Payne	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	January 25, 2024
* _____ Denis Burger	Director	January 25, 2024
* _____ Carol Ashe	Director	January 25, 2024
* _____ Dr. Erich M. Platzer	Director	January 25, 2024
* _____ Dr. Bernd R. Seizenger	Director	January 25, 2024
* _____ Dr. Mark Vincent	Director	January 25, 2024
* _____ Warren Whitehead	Director	January 25, 2024
*By: /s/ Fletcher Payne _____ Fletcher Payne <i>Attorney-in-fact</i>		

AUTHORIZED REPRESENTATIVE

Pursuant to the requirements of Section 6(a) of the Securities Act of 1933, the undersigned has signed this registration statement, solely in the capacity of the duly authorized representative of Aptose Biosciences Inc. in the United States, on this 25th day of January, 2024.

APTOSE BIOSCIENCES U.S. INC.

By: /s/ Fletcher Payne

Name: Fletcher Payne
Title: Senior Vice President and Chief Financial Officer



McCarthy Tétrault LLP
Suite 5300, TD Bank Tower
Box 48, 66 Wellington Street West
Toronto (Ontario) M5K 1E6
Canada
Tel: 416-362-1812
Fax: 416-868-0673

January 25, 2024

Aptose Biosciences Inc.
251 Consumers Road, Suite 1105
Toronto, Ontario, M2J 4R3

Dear Sir/Mesdames:

We have acted as Canadian counsel to Aptose Biosciences Inc. (the “**Company**”) in connection with the preparation and filing with the United States Securities and Exchange Commission (the “**Commission**”) under the United States Securities Act of 1933, as amended (the “**Securities Act**”), of the Company’s Registration Statement on Form S-1 (File No. 333-275870) filed with the Commission on December 4, 2023, each amendment thereto, and the Registration Statement filed by the Company with the Commission on January 25, 2024 (collectively, the “**Registration Statement**”), relating to the issuance and sale by the Company of: (i) 4,912,280 common shares of the Company (the “**Offered Shares**”), (ii) 4,912,280 warrants (the “**Warrants**”) to purchase 4,912,280 common shares (the “**Warrant Shares**”) and, (iii) 0 pre-funded warrants (the “**Pre-Funded Warrants**”) to purchase common shares (the “**Pre-Funded Warrant Shares**”) pursuant to the terms and subject to the conditions of an underwriting agreement (the “**Underwriting Agreement**”) to be entered into between the Company and Newbridge Securities Corporation as representative of a syndicate of underwriters (the “**Underwriters**”).

The Company has agreed to grant an over-allotment option to the Underwriters to purchase (i) up to an additional 736,842 Offered Shares (the “**Over Allotment Shares**”) and/or (ii) 736,842 Warrants (the “**Over-Allotment Warrants**”) to purchase up to an additional 736,842 Offered Shares (“**Over-Allotment Warrant Shares**”), representing 15% of the securities sold in the offering.

Pursuant to the Underwriting Agreement the Company will agree to issue to the Underwriters, as partial compensation for their services, up to 395,438 common share purchase warrants (assuming the exercise of the over-allotment option) (“**Underwriter Warrant**”) to purchase up to 395,438 common shares (assuming the exercise of the over-allotment option) (the “**Underwriter Warrant Shares**”), representing 7.0% of the Offered Shares, Pre-Funded Warrants and/or Warrants sold in the offering. Each Underwriter Warrant will entitle the holder to purchase one Underwriter Warrant Share at an exercise price equal to 125% of the price at which the Offered Share, Pre-Funded Warrants and/or Warrants are sold to the Underwriter.

The Offered Shares, Warrants, Warrant Shares, Pre-Funded Warrants, Pre-Funded Warrant Shares, Over-Allotment Shares, Over-Allotment Warrants, Over-Allotment Warrant Shares, Underwriter Warrants and Underwriter Warrant Shares are collectively referred to herein as the “**Offered Securities**”.

Scope of Review, Assumptions and Qualifications

As counsel, we have made such investigations and examined the originals, or duplicate, certified, conformed, facsimiled or photostatic copies of such corporate records, agreements, documents and other instruments and have made such other investigations as we have considered necessary or relevant for the purposes of this opinion, including:

- (a) the Registration Statement, including the prospectus contained therein;
- (b) the Underwriting Agreement;
- (c) the form of Warrants filed as an exhibit to the Registration Statement;
- (d) the form of Pre-Funded Warrants filed as an exhibit to the Registration Statement;
- (e) the form of Underwriter Warrant filed as an exhibit to the Registration Statement;
- (f) the articles and by-laws of the Company;

- (g) a certificate of compliance dated December 11, 2023 issued in respect of the Company pursuant to the Canada Business Corporations Act (the “**Certificate of Compliance**”); and
- (h) a certificate of Fletcher Payne, the Senior Vice President, Chief Financial Officer and Secretary of the Company, as to certain factual matters dated the date hereof.

We have also examined originals or copies, certified or otherwise identified to our satisfaction, of such records of the Company and such agreements, certificates of public officials, certificates of officers, or other representatives of the Company, and such other documents as we have deemed necessary or appropriate as a basis for the opinion set forth herein.

In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, conformed, photostatic, electronic, or facsimile copies and the authenticity of the originals of such documents. In making our examination of executed documents or documents which may be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and execution and delivery by such parties, of such documents and that such documents constitute or will constitute valid and binding obligations of the parties thereto. We have also assumed that the Certificate of Compliance will continue to be accurate as at the date of issuance of any Offered Securities.

In connection with our opinions expressed below, we have assumed that, at or prior to the time of the delivery of any such Offered Securities, the authorization to issue the Offered Securities pursuant to the Underwriting Agreement will not have been modified or rescinded by the board of directors of the Company and there will not have occurred any change in law affecting the validity or enforceability of such issuance of Offered Securities. We have also assumed that neither the issuance and delivery of the Offered Securities, nor the compliance by the Company with the terms of the Underwriting Agreement, will violate any applicable federal, provincial or state law or will result in a violation of any provision of any instrument or agreement then binding upon the Company or any restriction imposed by any court or governmental body having jurisdiction over the Company.

The opinions expressed herein are limited to the federal laws of Canada applicable therein (the “**Applicable Law**”).

Opinion

Based upon and subject to the foregoing, we are of the opinion that:

1. The Offered Shares and Over-Allotment Shares, when issued, sold and delivered in the manner and for the consideration stated in the Underwriting Agreement, and upon payment of the consideration provided therein to the Company, will be validly issued as fully paid and non-assessable common shares of the Company.
2. The Warrant Shares and the Over-Allotment Warrant Shares, when issued and delivered upon exercise of the Warrants in accordance with their terms, and upon payment of the exercise price thereof, will be validly issued as fully paid and non-assessable common shares of the Company.

3. The Pre-Funded Warrant Shares, when issued and delivered upon exercise of the Pre-Funded Warrants in accordance with their terms, and upon payment of the exercise price thereof, will be validly issued as fully paid and non-assessable common shares of the Company
4. The Underwriter Warrant Shares, when issued and delivered upon exercise of the Underwriter Warrants in accordance with their terms, and upon payment of the exercise price thereof, will be validly issued as fully paid and non-assessable common shares of the Company

We hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement. We also consent to the reference to our firm under the heading "Legal Matters" in the prospectus contained in the Registration Statement. In giving this consent, we do not thereby admit that we are in the category of persons whose consent is required under the Securities Act or the rules and regulations promulgated thereunder. This opinion is expressed as of the date hereof unless otherwise expressly stated, and we disclaim any undertaking to advise you of any subsequent changes of the facts stated or assumed herein or any subsequent changes in Applicable Law.

Yours truly,

(s) McCarthy Tétrault LLP

January 25, 2024

Aptose Biosciences Inc.
251 Consumers Road, Suite 1105
Toronto, Ontario, M2J 4R3

Re: Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as United States counsel to Aptose Biosciences Inc., a Canadian corporation (the "Corporation"), in connection with the Registration Statement on Form S-1 (File No. 333-275870) filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), on December 4, 2023, each amendment thereto, and the Registration Statement filed by the Corporation with the Commission on January 25, 2024 pursuant to Rule 462(b) under the Securities Act (collectively, the "**Registration Statement**"), relating to the registration by the Corporation of securities consisting of (a) (i) up to 5,649,122 common shares, no par value ("**Offered Shares**") (includes the exercise of the over-allotment option), or (ii) in lieu thereof, up to 5,649,122 pre-funded warrants (the "**Pre-Funded Warrants**") to purchase up to 5,649,122 Offered Shares, (b) up to 5,649,122 warrants (the "**Warrants**") (includes the exercise of the over-allotment option) to purchase up to 5,649,122 common shares and (c) up to 395,438 warrants to purchase 395,438 Offered Shares, issued to the underwriter (the "**Underwriter's Warrants**") (includes the exercise of the over-allotment option).

We have examined such documents and have reviewed such questions of law as we have considered necessary or appropriate for the purposes of our opinions set forth below. In rendering our opinions set forth below, we have assumed the authenticity of all documents submitted to us as originals, the genuineness of all signatures and the conformity to authentic originals of all documents submitted to us as copies. We have also assumed the legal capacity for all purposes relevant hereto of all natural persons. As to questions of fact material to our opinions, we have relied upon certificates or comparable documents of officers and other representatives of the Corporation and of public officials.

Based on the foregoing, we are of the opinion that the Pre-Funded Warrants, Warrants and the Underwriter's Warrants, when duly executed by the Corporation and duly delivered to the purchasers thereof against payment therefor as described in the Registration Statement, will constitute valid and binding obligations of the Corporation, enforceable against the Corporation in accordance with their terms.

(a) Our opinions set forth above are subject to the effect of any applicable bankruptcy, insolvency, reorganization, moratorium or similar law relating to or affecting creditors' rights generally (including, without limitation, fraudulent conveyance laws).

(b) Our opinions set forth in paragraphs above are subject to the effect of general principles of equity, including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing and the possible unavailability of specific performance or injunctive relief, regardless of whether considered in a proceeding in equity or at law.

(c) Our opinions set forth in paragraphs above are subject to limitations regarding the availability of indemnification and contribution where such indemnification or contribution may be limited by applicable law or the application of principles of public policy.

(d) We express no opinion as to the enforceability of (i) provisions that relate to choice of law, forum selection or submission to jurisdiction (including, without limitation, any express or implied waiver of any objection to venue in any court or of any objection that a court is an inconvenient forum) to the extent that the validity, binding effect or enforceability of any such provision is to be determined by any court other than a state court of the State of New York, (ii) waivers by the Corporation of any statutory or constitutional rights or remedies, (iii) terms which excuse any person or entity from liability for, or require the Corporation to indemnify such person or entity against, such person's or entity's negligence or willful misconduct or (iv) obligations to pay any prepayment premium, default interest rate, early termination fee or other form of liquidated damages, if the payment of such premium, interest rate, fee or damages may be construed as unreasonable in relation to actual damages or disproportionate to actual damages suffered as a result of such prepayment, default or termination.

(e) We draw your attention to the fact that, under certain circumstances, the enforceability of terms to the effect that provisions may not be waived or modified except in writing may be limited.

Our opinions expressed above are limited to the laws of the State of New York.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement, and to the reference to our firm under the heading "Legal Matters" in the prospectus constituting part of the Registration Statement. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,
/s/ Dorsey & Whitney LLP

DMM/AWE



KPMG LLP
100 New Park Place, Suite 1400
Vaughan, ON L4K 0J3
Tel 905-265 5900
Fax 905-265 6390
www.kpmg.ca

Consent of Independent Registered Public Accounting Firm

The Board of Directors

Aptose Biosciences Inc.

We consent to the use of our report dated March 23, 2023, on the consolidated financial statements of Aptose Biosciences Inc. (the “Company”), which comprise the consolidated statements of financial position as at December 31, 2022 and December 31, 2021, the related consolidated statements of loss and comprehensive loss, changes in shareholders’ equity and cash flows for the years then ended, and the related notes, which is included in the prospectus included in the Registration Statement (No. 333-) dated January 25, 2024 on Form S-1, of Aptose Biosciences Inc. to be filed pursuant to Rule 462(b) as promulgated under the Securities Act of 1933, as amended, and which incorporates by reference the Company’s Registration Statement on Form S-1 (Registration No. 333-275870) dated January 19, 2024 that was filed with the Securities and Exchange Commission on January 22, 2024.

/S/ KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants

January 25, 2024

Vaughan, Canada

Calculation of Filing Fee Tables

Form S-1
(Form Type)

Aptose Biosciences Inc.

(Exact Name of Each Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price(1)	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Shares, no par value per share("Common Shares")(2)	457(o)			\$1,609,999(6)	0.00014760	\$238
	Other	Pre-funded Warrants to purchase Common Shares(3)	Other			—		(3)
	Equity	Common Shares underlying the Pre-Funded Warrant(3)	457(o)			—		(3)
	Other	Warrants to purchase Common Shares	Other			—		(4)
	Equity	Common Shares underlying the Warrants to purchase Common Shares	457(o)			\$1,609,999(6)	0.00014760	\$238
	Equity	Underwriter's Warrants to purchase Common Shares	Other					(5)
	Equity	Common Shares underlying Underwriter's Warrants	Other			\$140,873(6)	0.00014760	\$21
		Total Offering Amounts				\$3,360,871	0.00014760	\$497
		Total Fees Previously Paid						\$0
		Total Fee Offsets						—
		Net Fee Due						\$497

- (1) Estimated solely for the purpose of calculating the amount of the registration fee in pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act")
- (2) Pursuant to Rule 416 under the Securities Act, this registration statement shall also cover any additional shares of the registrant's securities that become issuable by reason of any share splits, share dividends or similar transactions.
- (3) The proposed maximum aggregate offering price of the Common Shares will be reduced on a dollar-for-dollar basis based on the offering price of any pre-funded warrants issued in the offering, and the proposed maximum aggregate offering price of the pre-funded warrants to be issued in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any Common Share issued in the offering. Accordingly, the proposed maximum aggregate offering price of the Common Shares and pre-funded warrants (including the Common Shares issuable upon exercise of the pre-funded warrants), if any, is \$1,609,999.
- (4) No separate registration fee is payable pursuant to Rule 457(g) under the Securities Act.
- (5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act. The Underwriter's Warrants are exercisable at a per share exercise price equal to 125% of the public offering price. As estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act, the proposed maximum aggregate offering price of the underwriter's warrants is \$232,749 which is equal to 7% of the aggregate offering price.
- (6) Includes common shares issuable upon exercise of the underwriters' over-allotment option to purchase additional common shares and/or warrants in an amount representing 15% of the common shares and warrants in the offering