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

FORM 6-K

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

For the month of **October 2024**

Commission File Number: **001-40858**

XORTX THERAPEUTICS INC.

(Translation of registrant's name into English)

**3710 – 33rd Street NW
Calgary, Alberta T2L 2M1
Canada**

(Address of principal executive office)

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

Form 20-F

Form 40-F

INCORPORATION BY REFERENCE

Exhibit 5.1 and 5.2 to this report on Form 6-K are hereby incorporated by reference as an Exhibit to the Registration Statement on Form F-3 of XORTX Therapeutics Inc. (File No. 333-269429), as amended and supplemented.

SIGNATURES

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

XORTX Therapeutics Inc.
(Registrant)

Date: October 17, 2024

By: /s/ Allen Davidoff

Name: Allen Davidoff

Title: President and Chief Executive Officer

Form 6-K Exhibit Index

Exhibit Number	Document Description
5.1	Opinion of Fasken Martineau DuMolin LLP, regarding legality of securities being registered
5.2	Opinion of Troutman Pepper Hamilton Sanders LLP, regarding legality of securities being registered

FASKEN

Fasken Martineau DuMoulin LLP
Barristers and Solicitors
Patent and Trade-mark Agents

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October 17, 2024

XORTX Therapeutics Inc.
3710 – 33rd Street NW
Calgary, Alberta, T2L 2M1
Canada

**Re: XORTX Therapeutics Inc.
Prospectus Supplement to Registration Statement on Form F-3 (File No. 333-269429)**

Ladies and Gentlemen:

We have acted as British Columbia counsel to XORTX Therapeutics Inc., a corporation organized under the laws of British Columbia (the “**Corporation**”), in connection with the preparation of a Prospectus Supplement (the “**Prospectus Supplement**”) to a Registration Statement on Form F-3 (File No. 333-269429), as amended from time to time (the “**Registration Statement**”) under the United States Securities Act of 1933, as amended (the “**Securities Act**”). The Prospectus Supplement relates to the issuance and sale (the “**Offering**”) of an aggregate of:

- 320,000 common shares of the Corporation, no par value per share (each, a “**Share**”); and
- 490,810 pre-funded warrants of the Corporation (each, a “**Pre-funded Warrant**”), each to purchase one common share in the capital of the Corporation (each, a “**Pre-funded Warrant Share**”) at an exercise price of USD \$0.00001 per share.

We have examined and relied upon (i) the Registration Statement, (ii) the Prospectus Supplement, (iii) the Corporation’s Certificate of Incorporation, Notice of Articles and Articles, as currently in effect, (iv) the certificates evidencing the Pre-funded Warrants (the “**Pre-funded Warrant Certificates**”), and (v) originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. In rendering our opinions set forth below, we have assumed: (a) the authenticity of all documents submitted to us as originals, (b) the genuineness of all signatures, (c) the conformity to the authentic originals of all documents submitted to us as copies, whether facsimile, photostatic, electronic, certified or otherwise, and the authenticity of the originals thereof, (d) that all facts, information, representation and warranties set forth in the records, documents and certificates we have reviewed, including official public records and certificates and other documents supplied by public officials or otherwise conveyed to us by public officials are complete, true and accurate as of, and at all material times prior to, the date of this opinion letter, (e) the due authorization, execution and delivery of all documents by all parties, other than the Corporation, and the validity, binding effect and enforceability thereof, (f) the legal capacity for all purposes relevant hereto of all persons (other than the Corporation), and (g) the issue price and exercise price, as applicable, for each Share, Pre-funded Warrant and Pre-funded Warrant Share has been set by the board of directors of the Corporation (the “**Board**”) or the person, persons or committee duly authorized by the Board, prior to the issuance of any such Share, Pre-funded Warrant, and Pre-funded Warrant Share in accordance with the *Business Corporations Act* (British Columbia), the Articles and any applicable resolution or authorization of the Board duly authorizing such person, persons or committee, as applicable (the “**Pricing Resolutions**”).



FASKEN

As to any facts material to the opinions expressed herein which were not independently established or verified, we have relied upon oral or written statements and representations of officers and other representatives of the Corporation and others and of public officials. In our capacity as counsel to the Corporation in connection with the preparation of the Prospectus Supplement and the filing of the Registration Statement, we are familiar with the proceedings taken and proposed to be taken by the Corporation in connection with the authorization and issuance of the securities offered under the Prospectus Supplement. For purposes of this opinion, we have assumed that such proceedings will be timely and properly completed, in accordance with all requirements of the Applicable Law (as defined below), in the manner presently proposed.

We are qualified to practice law in the Province of British Columbia, and our opinion herein is limited to the statutes and regulations of the Province of British Columbia and the federal laws of Canada applicable therein now in effect (the “**Applicable Law**”). We express no opinion as to whether the laws of any particular jurisdiction other than those identified above are applicable to the subject matter hereof. We assume no obligation to revise or supplement this opinion should any applicable laws be changed subsequent to the date hereof by legislative action, judicial decision or otherwise or if there is a change in any fact or facts after the date hereof. Where our opinion refers to any of the securities or shares as being “fully paid and non-assessable”, no opinion is expressed as to actual receipt by the Corporation of the consideration for the issuance of such shares or as to the adequacy of any consideration received.

Based on and subject to the foregoing assumptions and qualifications we are of the opinion that:

1. when issued and paid for, in such amounts as determined pursuant to the Pricing Resolutions, as contemplated in the Prospectus Supplement in accordance with the terms of the Securities Purchase Agreement between the Corporation and the purchaser dated October 17, 2024, the Shares will be validly issued, fully paid and non-assessable common shares of the Corporation; and
2. upon exercise of the Pre-funded Warrants in accordance with the terms of the applicable Pre-funded Warrant Certificate, including payment of the exercise price thereof, the Pre-funded Warrant Shares will be validly issued, fully paid and non-assessable common shares of the Corporation.



FASKEN

We hereby consent to the use of our name in, and the filing of this opinion as an exhibit to, a report on Form 6-K, and to the reference to our firm under the headings “Legal Matters” in the Prospectus Supplement. 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 very truly,

/s/ Fasken Martineau DuMoulin LLP



Troutman Pepper Hamilton Sanders LLP
401 9th Street, N. W., Suite 1000
Washington, DC 20004-2134



troutman.com

October 17, 2024

XORTX Therapeutics Inc.
3710 – 33rd Street NW
Calgary, Alberta, T2L 2M1
Canada

Re: XORTX Therapeutics Inc. - Prospectus Supplement to Registration Statement on Form F-3 (File No. 333-269429)

Ladies and Gentlemen:

We have acted as United States counsel to XORTX Therapeutics Inc., a corporation organized under the laws of British Columbia, Canada (the "**Company**"), in connection with a Prospectus Supplement to a Registration Statement on Form F-3 (File No. 333-269429) (the "**Prospectus Supplement**") filed by the Company with the United States Securities and Exchange Commission (the "**Commission**") under the United States Securities Act of 1933, as amended (the "**Securities Act**"), relating to the offer and sale by the Company of an aggregate of 320,000 common shares of the Company, no par value per share (the "**Shares**"), and pre-funded warrants to purchase an aggregate of 490,810 common shares at an exercise price of \$0.00001 per share (each, a "**Pre-Funded Warrant**"), exercisable until such time as the Pre-Funded Warrants are exercised in full, subject to adjustment as provided in the Pre-Funded Warrants, pursuant to that certain Securities Purchase Agreement, dated October 17, 2024 (the "**Securities Purchase Agreement**"), between the Company and the purchaser thereunder.

This opinion letter is furnished to you for filing with the Commission pursuant to Item 601 of Regulation S-K, promulgated under the Securities Act.

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 and, with respect to all parties to agreements or instruments relevant hereto, that such parties had the requisite power and authority (corporate or otherwise) to execute, deliver and perform such agreements and instruments, that such agreements and instruments have been duly authorized by all requisite action (corporate or otherwise), executed and delivered by such parties and, except to the extent expressly stated in the opinions contained herein, that such agreements and instruments are the valid, binding and enforceable obligations of such parties. As to questions of fact material to our opinions, we have relied upon certificates or comparable documents of officers and other representatives of the Company and of public officials.

Based on the foregoing, and assuming that (i) the Registration Statement and all amendments thereto (including post-effective amendments) is and will continue to be effective under the Securities Act, (ii) the Company is duly incorporated and is validly existing and in good standing under the laws of the jurisdiction of its organization, (iii) the Securities Purchase Agreement and the Pre-Funded Warrants will or have been duly authorized and validly executed and delivered by the Company, and (iv) any common shares issuable upon exercise of the Pre-Funded Warrants being offered or sold will be duly authorized, created and, if appropriate, reserved for issuance upon such exercise, we are of the opinion that the Pre-Funded Warrants, when issued and delivered against payment of the consideration therefor, as contemplated in the Prospectus Supplement and in accordance with the terms of the Securities Purchase Agreement, will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

October 17, 2024
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Our opinions set forth above are subject to the following qualifications and exceptions:

- (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 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) 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), (ii) waivers by the Company of any statutory or constitutional rights or remedies, (iii) terms which excuse any person or entity from liability for, or require the Company 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.
- (d) 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 corporate laws of the State of New York.

We are furnishing this opinion in connection with the filing of the Prospectus Supplement, and hereby consent to the reference to our firm under the headings "Legal Matters" in the Prospectus Supplement. 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/ Troutman Pepper Hamilton Sanders LLP
