

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

FORM 12b-25

NOTIFICATION OF LATE FILING

(Check one): ☐ Form 10-K ☒ Form 20-F ☐ Form 11-K ☐ Form 10-Q ☐ Form 10-D
☐ Form N-SAR ☐ Form N-CSR

For Period Ended: December 31, 2024

- ☐ Transition Report on Form 10-K
☐ Transition Report on Form 20-F
☐ Transition Report on Form 11-K
☐ Transition Report on Form 10-Q
☐ Transition Report on Form N-SAR

For the Transition Period Ended:

Read instruction (on back page) Before Preparing Form. Please Print or Type.
Nothing in this Form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

PART I — REGISTRANT INFORMATION

XORTX Therapeutics Inc.

Full Name of Registrant

N/A

Former Name if Applicable

3710 — 33rd Street NW

Address of Principal Executive Office (Street and Number)

Calgary, Alberta, T2L 2M1, Canada

City, State and Zip Code

PART II — RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed.
(Check box if appropriate)

- ☒ (a) The reason described in reasonable detail in Part III of this Form could not be eliminated without unreasonable effort or expense;
- ☒ (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-CEN or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III — NARRATIVE

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-CEN, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

XORTX Therapeutics Inc. (the "Company") is filing this Notification of Late Filing on Form 12b-25 with respect to its Annual Report on Form 20-F for the year ended December 31, 2024 (the "Form 20-F").

The Form 20-F could not be filed within the prescribed time period without unreasonable effort or expense because the Company requires additional time to complete work related to the Company's financial reporting, closing procedures and other disclosure items. As a result, the Company is still in the process of compiling required information to complete the Form 20-F. The Company is diligently working to file the Form 20-F as soon as reasonably practicable, and expects to be able to do so on or before the fifteenth calendar day following the prescribed due date for the Form 20-F.

PART IV — OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification

Michael Bumby

(403)

455-7727

(Name) (Area Code) (Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s).

☒ Yes ☐ No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof?

☐ Yes ☒ No

If so: attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

XORTX Therapeutics Inc.
(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date: May 1, 2025

By: /s/ Michael Bumby
Michael Bumby, Chief Financial Officer

ATTENTION

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).