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 January 2025

Commission File Number: 001-40858

XORTX Therapeutics Inc.

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

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

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, thereunto duly

XORTX Therapeutics Inc. (Registrant)

Date: January 17, 2025 By:

<u>/s/ Allen Davidoff</u> Allen Davidoff Chief Executive Officer Name: Title:

EXHIBIT INDEX

99.1 News release dated January 17, 2025

XORTX Announces Change of Auditor

CALGARY, Alberta, Jan. 17, 2025 (GLOBE NEWSWIRE) -- XORTX Therapeutics Inc. ("XORTX" or the "Company") (NASDAQ: XRTX | TSXV: XRTX | Frankfurt: ANU), a late stage clinical pharmaceutical company focused on developing innovative therapies to treat progressive kidney disease and gout, announces the Company has changed its auditor from Smythe LLP, Chartered Professional Accountants ("Former Auditor") to Davidson & Company LLP, Chartered Professional Accountants, ("Successor Auditor") effective January 16, 2025.

XORTX's board of directors accepted the resignation of the Former Auditor, as of January 16, 2025 and appointed the Successor Auditor as the new auditor of the Company effective January 16, 2025, and to hold office until the close of the Company's next annual general meeting of shareholders.

There were no reservations in the Former Auditor's audit reports for any financial period during which the Former Auditor was the Company's auditor. There are no "reportable events" (as the term is defined in National Instrument 51-102 - Continuous Disclosure Obligations) between the Company and the Former Auditor.

In accordance with National Instrument 51-102, the Notice of Change of Auditor, together with the required letters from the Former Auditor and the Successor Auditor, have been reviewed by the Company's audit committee and board of directors and have been filed on the Company's SEDAR+ profile at www.sedarplus.ca.

About XORTX Therapeutics Inc.

XORTX is a pharmaceutical company with three clinically advanced products in development: 1) our lead, XRx-008 program for ADPKD; 2) our XRx-026 program for the treatment of allopurinol intolerant gout; and 3) our secondary program in XRx-101 for acute kidney and other acute organ injury associated with Coronavirus / COVID-19 infection. In addition, XRx-225 is a pre-clinical stage program for Type 2 Diabetic Nephropathy. XORTX is working to advance its clinical development stage products that target aberrant purine metabolism and xanthine oxidase to decrease or inhibit production of uric acid. At XORTX, we are dedicated to developing medications to improve the quality of life and health of kidney disease patients and individuals with gout. Additional information on XORTX is available at www.xortx.com.

For more information, please contact:

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Neither the TSX Venture Exchange nor Nasdaq has approved or disapproved the contents of this news release. No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained herein.