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 November 2023

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 []

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 authorized.

XORTX Therapeutics Inc. (Registrant)

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

Date: November 30, 2023

<u>99.1</u> <u>Press Release dated November 30,</u> <u>2023</u>

XORTX Announces US ATM Offering

CALGARY, Alberta, Nov. 30, 2023 (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, announces that it has entered into an At The Market Offering Agreement with H.C. Wainwright & Co., LLC ("**Wainwright**"), pursuant to which the Company, at its discretion, may offer and sell, from time to time, through Wainwright, common shares without par value (the "**Shares**") having an aggregate offering price of up to US\$3,701,931 (the "**ATM Offering**"). A cash commission of 3.0% on the aggregate gross proceeds raised under the ATM Offering will be paid to Wainwright in connection with its services.

The ATM Offering is being made in the United States pursuant to a registration statement on Form F-3 (File No. 333-269429) filed under the Securities Act of 1933, as amended (the "Securities Act"), with the Securities and Exchange Commission (the "SEC") and declared effective on February 3, 2023 (the "Registration Statement"), and the related Prospectus dated February 3, 2023 (the "Base Prospectus") and the Prospectus Supplement dated November 29, 2023 ("Prospectus Supplement", together with Base Prospectus, the "Prospectus") filed with the Commission.

Sales of Shares under the Prospectus will be made in transactions that are deemed to be "at-the-market" offering as defined in Rule 415(a)(4) promulgated under the Securities Act, including sales made directly on or through the Nasdaq Stock Market LLC ("**Nasdaq**"). The Shares will be distributed at the market prices prevailing at the time of sale. As a result, prices may vary as between purchasers and during the period of distribution. No Shares in the ATM Offering will be sold on the TSX Venture Exchange ("**TSXV**") or any other trading market in Canada.

If XORTX chooses to sell Shares under the ATM Offering, the Company intends to use the net proceeds of the ATM Offering for working capital and for other general corporate purposes.

You can review our SEC filings, the Registration Statement and the Prospectus by accessing the SEC's internet site at www.sec.gov or on the Company's website at www.xortx.com, through which you can access our SEC filings.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

About XORTX Therapeutics Inc.

XORTX is a pharmaceutical company with two clinically advanced products in development: 1) our lead, XRx-008 program for ADPKD; and 2) our secondary program in XRx-101 for acute kidney and other acute organ injury associated with Respiratory Viral 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 future health of patients with kidney disease. Additional information on XORTX is available at www.xortx.com.

For more information, please contact:

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Neither the TSXV 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.

Forward Looking Statements

This press release contains express or implied forward-looking statements pursuant to applicable securities laws, including those relating to future sales of Shares under the ATM Offering, the offering price therefor and the use of proceeds thereof. These forward-looking statements and their implications are based on the current expectations of the management of XORTX only, and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Except as otherwise required by applicable law and stock exchange rules, XORTX undertakes no obligation to publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. More detailed information about the risks and uncertainties affecting XORTX is contained under the heading "Risk Factors" in XORTX's Annual Report on Form 20-F filed with the SEC, which is available on the SEC's website, www.sec.gov (including any documents forming a part thereof or incorporated by reference therein), as well as in our reports, public disclosure documents and other filings with the securities commissions and other regulatory bodies in Canada, which are available on www.sedarplus.ca.