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 September 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 [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: September 11, 2023 By:

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

EXHIBIT INDEX

 $\frac{99.1}{2023} \quad \frac{\text{News release dated September 11.}}{2023}$

XORTX Announces Participation at Upcoming Investor Conferences

CALGARY, Alberta, Sept. 11, 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 Dr. Allen Davidoff, President and CEO, is scheduled to participate in the following upcoming investor conferences:

H.C. Wainwright 25th Annual Global Investment Conference, New York City - September 11-13, 2023

Registration: XORTX Therapeutics Inc. to Present at the H.C. Wainwright 25th Annual Global Investment Conference September 11-13

Singular Research's Autumn Equinox Webinar on September 13-14

Registration: XORTX Therapeutics Inc. to Present at Singular Research's Autumn Equinox Webinar September 13th at 10:00 AM PST

The LD Micro Main Event XVI, Los Angeles-October 3 - 5

Registration: XORTX Therapeutics Inc. to Present at the LD Micro Main Event XVI in L.A. Wed, Oct 4 at 1:00-1:25 PM in Track 2 PST **Live Stream Registration**: here

GCFF Conference 2023 – Main Event Toronto – October 21

Registration: XORTX Therapeutics Inc. to Present at the GCFF Investor Conference Main Event – Saturday, October 21st

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:

Allen Davidoff, CEO adavidoff@xortx.com or +1 403 455 7727

Nick Rigopulos, Director of Communications nick@alpineequityadv.com or +1 617 901 0785

Media Inquiries, Olipriya Das, PhD, MSc olipriya.das@russopartnersllc.com or +1 409 365 3641

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.

Forward Looking Statements

This press release contains express or implied forward-looking statements pursuant to U.S. Federal securities laws. 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 law, 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 Registration Statement on Form F-1 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.