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 December 2021

Commission File Number: 001-40858

XORTX Therapeutics Inc.

Suite 2400 - 745 Thurlow Street, Vancouver, British Columbia, Canada, V6E 0C5

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 ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ____

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

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)

Date: December 2, 2021

By: */s/ Allen Davidoff*
Name: Allen Davidoff
Title: Chief Executive Officer

EXHIBIT INDEX

99.1	News Release dated December 2, 2021

Exhibit 99.1

XORTX Therapeutics Appoints Altasciences as CRO for Clinical Study

CALGARY, AB – December 2, 2021– XORTX Therapeutics Inc. (" **XORTX**" or the "**Company**") (NASDAQ: XRTX | TSXV: XRTX | Frankfurt: ANU), a pharmaceutical therapeutics company focused on developing innovative therapies to treat progressive kidney disease, announces that it has appointed Altasciences as contract research organization (CRO) for its planned Bridging pharmacokinetic study in support of the XRx-008 program for autosomal dominant polycystic kidney disease (ADPKD) and XRx-101 for acute kidney injury associated with Coronavirus infection.

The goal of the planned bridging pharmacokinetics study – XRX-OXY-101, is to characterize the increased bioavailability of oxypurinol in humans and follows after successful results in two animal models where increased bioavailability was demonstrated for this formulation.

Dr. Allen Davidoff, President and CEO stated, "XORTX is pleased to be starting work with Altasciences as we initiate the characterization of our novel, proprietary formulations of xanthine oxidase inhibitors. This study marks the first of several clinical trials planned for the next year and an exciting opportunity to advance our kidney disease programs through preliminary characterization, followed by late stage registration trials."

"We are excited and pleased that we have been chosen by XORTX to play a significant part in the development of the XRx-008 and XRx-101 programs. We look forward to supporting such an innovative company to bring a valuable new treatment for kidney disease to the next stage. This fulfils our mission to help our clients get better drugs to the people who need them, faster," stated Chris Perkin, CEO of Altasciences.

About XORTX Therapeutics Inc.

XORTX Therapeutics Inc. is a pharmaceutical company with two clinically advanced products in development – XRx-008 for Autosomal Dominant Polycystic Kidney Disease (ADPKD), XRx-101 for Coronavirus / COVID-19 infection and XRx-225 is a pre-clinical stage program for Type 2 Diabetic Nephropathy (T2DN). 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 Therapeutics, we are dedicated to developing medications to improve the quality of life and future health of patients. Additional information on XORTX Therapeutics is available at www.xortx.com.

About Altasciences

Altasciences is a forward-thinking, mid-size contract research organization offering pharmaceutical and biotechnology companies a proven, flexible approach to clinical pharmacology studies, including formulation, manufacturing and analytic services. For over 25 years, Altasciences has been partnering with sponsors to help support educated, faster, and more complete early drug development decisions. Altasciences integrated, full-service solutions include preclinical safety testing, clinical pharmacology and proof of concept, bioanalysis, program management, medical writing, biostatistics, clinical monitoring and data management, all customizable to specific sponsor requirement.

XORTX Therapeutics Inc.
4000, 421 – 7th Avenue SW, Calgary, Alberta, Canada T2P 4K9

T + 1 403 455 7727 | **xortx.com** | **CSE : XRX NASDAQ: XRTX**

For further 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

The TSX Venture Exchange and Nasdaq have neither approved nor 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 Canadian and 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 in the Company's Management's Discussion and Analysis for the interim period ended June 30, 2020 filed on the Company's SEDAR profile (www.sedar.com) and under the heading "Risk Factors" in XORTX's Registration Statement on Form F-1 filed with the Securities and Exchange Commission ("SEC") available on the SEC's website, www.sec.gov.