
**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 October 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 ☒ 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)

Date: October 17, 2025

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

EXHIBIT INDEX

99.1 News release dated October 17,
2025

XORTX Announces Acquisition of Renal Anti-Fibrotic Therapeutic Program from Vectus Biosystems

Acquisition includes novel new chemical entity VB4-P5 with potential to address significant unmet needs in rare and large-market kidney diseases

CALGARY, Alberta, Oct. 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 gout and progressive kidney disease, announces that it has entered into a binding term sheet (the “Term Sheet”) to acquire a Renal Anti-Fibrotic Therapeutic Program from Vectus Biosystems Limited, an Australian Securities Exchange listed company (“Vectus”). The program includes a **novel new chemical entity, VB4-P5**, along with its associated intellectual property, regulatory documentation, and manufacturing data. The program is currently at the **pre-IND (Investigational New Drug)** stage of development and targets both rare and prevalent forms of kidney disease — areas with substantial unmet medical need.

Dr. Allen Davidoff, Chief Executive Officer of XORTX, stated, “The opportunity to acquire the VB4-P5 program was highly compelling. This program is underpinned by a novel, patented small molecule with robust global patent protection and strong preclinical evidence. It is directly aligned with our strategic focus on developing innovative therapies for progressive kidney disease, and it builds upon our mission to bring new classes of treatments to patients suffering from rare renal disorders.”

The Term Sheet provides for XORTX to acquire from Vectus the intellectual property specifically related to the VB4-P5 compound and the data generated by Vectus from its work on the VB4-P5 small molecule and related assets. The consideration receivable by Vectus is USD \$3.0 million, payable in common shares or common share equivalents of XORTX (the “**Securities**”) at a deemed issue price of USD \$0.86 per Security (the “**Issue Price**”), with the Issue Price subject to adjustment in certain circumstances provided, however, that the Issue Price will not be lower than the Discounted Market Price (as defined in the policies of the TSXV) on the last trading day prior to this issuance of this press release.

The Term Sheet is subject to finalization of closing documentation, satisfaction of conditions that are typical for a transaction of this type including receipt of all regulatory approvals, and compliance with applicable stock exchange requirements and applicable securities laws. Closing of the acquisition will occur no more than 90 days from the execution of the Term Sheet. If requested by Vectus, XORTX will use its reasonable commercial efforts to register the Securities with the Securities and Exchange Commission of the United States. In addition, Vectus will enter into a voluntary lockup agreement that, among other things, restricts sales of the Securities by Vectus for 180 days after the Closing Date.

About Kidney Disease and Fibrosis

Chronic kidney disease (CKD) affects an estimated **14% of adults globally**, including approximately **35–37 million individuals in the United States** alone¹.

Kidney fibrosis — characterized by excessive accumulation of extracellular matrix following renal injury — is a hallmark of CKD progression, leading to **organ dysfunction, high morbidity, and mortality**². Rare kidney diseases such as **autosomal dominant polycystic kidney disease (ADPKD)**³ and **lupus nephritis**⁴ also manifest fibrosis, contributing to the deterioration of kidney and cardiovascular function. Currently, available treatments for kidney fibrosis focus primarily on blood pressure control and dietary interventions. **No approved therapies specifically target or reverse kidney fibrosis.**

About the VB4-P5 Program

Early preclinical data from the VB4-P5 program demonstrate the potential of this potent small molecule to **inhibit and possibly reverse kidney fibrosis**. Patent protection for VB4-P5 includes **composition-of-matter** and **method-of-use claims** across **more than 30 global jurisdictions**, positioning the program for broad development and commercialization opportunities.

References

1. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Kidney Disease Statistics for the United States.
2. Panizo S. *Fibrosis in Chronic Kidney Disease*. *Int J Mol Sci* 22(1):408, 2021.
3. Xue C. *Polycystic Kidney Disease and Renal Fibrosis*. *Adv Exp Med Biol*, 2019.
4. Sciascia S. *Renal Fibrosis in Lupus Nephritis*. *Int J Mol Sci* 23(22):14317, 2022.

About XORTX Therapeutics Inc.

XORTX is a pharmaceutical company with three clinically advanced products in development: 1) our lead program XRx-026 program for the treatment of gout; 2) XRx-008 program for ADPKD; and 3) XRx-101 for acute kidney and other acute organ injury associated with respiratory virus infections. In addition, the Company is developing XRx-225, a pre-clinical stage program for Type 2 diabetic nephropathy. XORTX is working to advance 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 that improve the quality of life and health of individuals with gout and other important diseases. Additional information on XORTX is available at www.xortx.com.

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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.

Forward Looking Statements

This press release contains express or implied forward-looking statements pursuant to applicable securities laws. These forward-looking statements include, but are not limited to, the Company's beliefs, plans, goals, objectives, expectations, assumptions, estimates, intentions, future performance, other statements that are not historical facts and statements identified by words such as “expects”, “anticipates”, “intends”, “plans”, “believes”, “seeks”, “estimates” or words of similar meaning. 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. Such risks, uncertainties, and other factors include, but are not limited to our ability to obtain additional financing; the accuracy of our estimates regarding expenses, future revenues and capital requirements; the success and timing of our preclinical studies and clinical trials; the performance of third-party manufacturers and contract research organizations; our plans to develop and commercialize our product candidates; our plans to advance research in other kidney disease applications; and, our ability to obtain and maintain intellectual property protection for our product candidates. 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.