

AMENDMENT NO. 1 DATED DECEMBER 13, 2024
to Prospectus Supplement dated October 17, 2024
(To Prospectus dated February 3, 2023)



XORTX THERAPEUTICS INC.

Up to \$1,028,169
Common Shares

This Amendment No. 1 to Prospectus Supplement (this “Amendment”) amends our prospectus supplement dated October 17, 2024 (the “Prospectus Supplement”). This Amendment should be read in conjunction with the Prospectus Supplement and the Registration Statement on Form F-3 containing the base prospectus, dated February 3, 2023, as supplemented by the prospectus supplement, dated November 29, 2023 (File No. 333-269429) (collectively, the “Prospectus”), and is qualified by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the Prospectus Supplement and the Prospectus, and any future amendments or supplements thereto. This Amendment is not complete without, and may only be delivered or utilized in connection with, the Prospectus Supplement and the Prospectus, and any future amendments or supplements.

We entered into an At The Market Offering Agreement (the “sales agreement”), dated November 29, 2023, with H.C. Wainwright & Co., LLC (“Wainwright”), as agent, relating to the offer and sale of shares of our common shares, no par value per share, offered by the Prospectus. On October 17, 2024, we filed the Prospectus Supplement to suspend the sales agreement and to terminate the continuous offering by us under the Prospectus, effective on October 17, 2024. We are filing this Amendment to amend the Prospectus Supplement to reinstate the sales agreement and the continuous offering by us pursuant to the Prospectus and to update the amount of common shares we are eligible to sell under General Instruction I.B.5 of Form F-3.

As of December 13, 2024, the aggregate market value of our outstanding common shares held by non-affiliates, or the public float, was \$7,355,727, which was calculated based on 3,389,736 outstanding common shares held by non-affiliates as of December 13, 2024, and at a price of \$2.17 per share, the closing price of our common shares on October 16, 2024. In no event will we sell common shares pursuant to the Prospectus, as amended by this Amendment, in an amount greater than the lesser of (i) such amount as is registered on our Registration Statement on Form F-3 of which the Prospectus forms a part or, (ii) pursuant to General Instruction I.B.5, an amount with a value, taken together with the aggregate market value of all other securities sold by us or on our behalf pursuant to General Instruction I.B.5 of Form F-3 during the prior 12-month period that ends on and includes the date hereof, of more than one-third of the aggregate market value of our common shares held by non-affiliates in any 12-month period, so long as the aggregate market value of our common shares held by non-affiliates is less than \$75,000,000. As of the date of this Amendment, we have offered and sold \$1,423,740 of securities pursuant to General Instruction I.B.5 of Form F-3 during the prior 12-month period that ends on and includes the date hereof.

As a result of these limitations and the current public float of our common shares, and in accordance with the terms of the sales agreement, we may offer and sell common shares having an aggregate offering price of up to \$1,028,169 from time to time through Wainwright.

Investing in our common shares involves a high degree of risk. Before making an investment decision, please read the information under the heading “Risk Factors” in the Prospectus and the documents incorporated by reference therein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this Amendment, the Prospectus Supplement or the Prospectus are truthful or complete. Any representation to the contrary is a criminal offense.

H.C. Wainwright & Co.

The date of this Amendment No. 1 to Prospectus Supplement is December 13, 2024.
