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 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 \boxtimes Form 40-F \square

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 27, 2023 By: /s/ Allen Davidoff

Name: Allen Davidoff
Title: Chief Executive Officer

EXHIBIT INDEX

99.1 Report of Voting Results

XORTX THERAPEUTICS INC.

Report of Voting Results

(Section 11.3 of National Instrument 51-102)

In accordance with section 11.3 of National Instrument 51-102 - Continuous Disclosure Obligations, this report briefly describes the matters voted upon and the outcome of the votes at the Special Meeting of Shareholders of XORTX Therapeutics Inc. (the "Company") held on October 27, 2023 at the offices of the Company (the 'Meeting').

1. Share Consolidation

A resolution authorizing the Company to file Articles of Amendment under the British Columbia Business Corporations Act to change the number of issued and outstanding common shares of the Company by consolidating the issued and outstanding common shares on the basis of up to nine (9) pre-consolidation common shares for every one (1) post-consolidated common share in order to the Company to regain compliance with the continued listing requirements for the NASDAQ Capital Market. Proxies were received as follows:

For the Motion: 4,252,262 (50.303%) Against: 4,200,967 (49.697%)

For additional information, please see the Company's notice of meeting and information circular dated September 20, 2023 filed on SEDAR in connection with the Meeting.

DATED at Calgary, AB, October 27, 2023.

XORTX THERAPEUTICS INC.

/s/ Charlotte May

Charlotte May Corporate Secretary