UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

August 2, 2021

Allen Davidoff
President and Chief Executive Officer
XORTX Therapeutics Inc.
Suite 4000, 421 – 7th Avenue SW
Calgary, Alberta
Canada T2P 4K9

Re: XORTX Therapeutics Inc.
Amendment No. 1 to Draft Registration Statement on Form F-1
Submitted July 21, 2021
CIK No. 0001729214

Dear Mr. Davidoff:

We have reviewed your amended draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Amendment No. 1 to Draft Registration Statement on Form F-1

Cover Page

1. We note your response to prior comment 2 and your statement that the assumed offering price and assumed exercise price for the Common Share Purchase will be for "illustrative purposes only" and that the public offering prices in the prospectus "may not be indicative of the final offering price." However, Item 501(b)(3) of Regulation S-K requires that you disclose the offering price of the securities, or a bona fide estimate of the range of the maximum offering price, on the cover page as well as the maximum number of securities offered. Accordingly, please confirm that you will insert the offering price of the securities, or a range that complies with applicable requirements, in a future filing prior to

effectiveness, rather than an illustrative price that "may not be indicative of the final offering price" and please remove your corresponding disclosure stating that the public offering price and assumed exercise price of the Common Share Purchase Warrants may not be indicative of the final offering price.

In addition, we note your statement that the actual public offering price will not be determined by the market price of the Company's common shares on the Canadian Securities Exchange ("CSE"). However, the disclosure in the first sentence on the cover page states that your offering price will be "based on the last reported price of [y]our common shares on the Canadian Securities Exchange..." Please advise.

2. We note your disclosure indicating that the common shares and Common Share Purchase Warrants are only being offered together. To the extent you are offering the common shares and Common Share Purchase Warrants together, you must register them as Units in your offering, even if the common shares and Common Share Purchase Warrants are immediately separable following the offering. If you plan to offer Units, please revise the registration statement fee table and prospectus cover page to identify the Units as securities in the offering, identifying the components of the Units. The pricing table on the prospectus cover page should reflect the common shares and Common Share Purchase Warrants priced as one security with a footnote indicating the assigned values to each of the securities. For guidance, please refer to Questions 240.05 and 240.06 of our Compliance and Disclosure Interpretations, Securities Act Rules.

Prospectus Summary
Overview, page 1

3. Your disclosure in the second paragraph here and on page 75 states that your pipeline-in-a-product strategy is supported by proposed clinical trials with experienced clinicians. However, elsewhere in the prospectus, your revised disclosure indicates that you are still in the processing of choosing a contract research organization to conduct your clinical trials. Please reconcile your disclosure or advise.

Please also revise your disclosure in the Prospectus Summary to reflect your disclosure elsewhere in the prospectus that you have not conducted any clinical trials for any of your product candidates.

4. We note your revised disclosures stating that oxypurinol has been well tolerated when administered orally in clinical trials and clinical settings. Please revise the Prospectus Summary, where appropriate, to briefly describe the clinical trials where oxypurinol was found to be well tolerated.

5. We note that it appears unclear whether oxypurinol has ever received a final marketing approval. Please clarify here and in the Business section whether oxypurinol received a final marketing approval and discuss whether the 505(b)(2) pathway is availability for products that have not received a final marketing approval. Please also revise to discuss

that the prior FDA review of oxypurinol was for a different indication than the ones you are targeting.

Readily scalable and transferable., page 4

6. We note your response to prior comment 6 and revised disclosure. Please revise further to clarify that there is no guarantee that the FDA will approve your uric lowering agent products for the treatment of kidney disease or the health consequences of diabetes.

Implications of Being an Emerging Growth Company, page 6

7. Refer to our prior comment 14. Please expand here and on pages 52 and 74 to address the transition period for complying with new and revised accounting guidance as allowed by Section 107 of the JOBS Act and Section 7(a)(2)(B) of the Securities Act of 1933.

Use of Proceeds, page 63

8. We refer to prior comment 17 and re-issue in part. Please revise to disclose how far you expect to reach in the development of your three lead product candidates with the proceeds from this offering. If the proceeds will not be sufficient to fund all of the proposed purposes, disclose the priority of such purposes as well as the amount and sources of other funds needed.

Capitalization, page 64

9. Please update your Capitalization Table as of March 31, 2021.

Business
Product Candidates, page 76

10. Please revise your pipeline graphic to clarify that you have not conducted Phase 1 or Phase 2 trials of your product candidates and that there is no guarantee that the FDA will permit you to directly proceed to a Phase 3 trial for XRx-008 or XRx-101.

11. We note your response to prior comment 21 and re-issue. Please revise your pipeline chart to shorten the arrow for XRx-225 to reflect its current development status as you have indicated in your disclosure and response letter that XRx-225 has not yet completed preclinical studies.

Prior FDA Review of Oxypurinol, page 79

12. Please revise this section to discuss the meaning of the term "approvable letter" and to disclose whether oxypurinol received a final marketing approval.

Strategic Partnerships and Collaborations, page 84

13. We note your response to prior comment 27 and re-issue in part. Please revise your descriptions of both agreements included in this section to disclose the product candidates

that are subject to each agreement. Please also disclose the royalty rate, or a range no greater than 10 percentage points, for your agreement with the Vendors. In addition, with respect to the UFRF agreement, provisions providing the contracting party the right to terminate the agreement for failure to meet milestone events are material to investors, please expand your disclosures to describe the milestone events and the dates by which you are required to achieve them.

Please also revise the Prospectus Summary to describe which of your product candidates are subject to license agreements and file these agreements as exhibits to your registration statement. In your revisions, please clearly state whether you own or license oxypurinol.

Independent Auditors' Report, page F-2

14. Refer to our prior comment 32 and your response. We note that the revised report refers to the "consolidated statements of loss and comprehensive loss" while the statements themselves are titled "consolidated statements of comprehensive loss". Please revise to be consistent with the exact title.

15. Refer to our prior comment 34. We see the revised audit report does not present the signature (name) of the audit firm. Please revise for this issue.

Condensed Interim Consolidated Statements of Comprehensive Loss, page F-27

16. We see the columns of financial data on the Consolidated Statements of Comprehensive Loss are labeled 2020 and 2019. Please revise to present your financial data for the three months ended March 31, 2021 and 2020. Also please revise page F-25 to clarify the Consolidated Statements of Financial Position are as of March 31, 2021 and December 31, 2020.

You may contact Jeanne Bennett at 202-551-3606 or Mary Mast at 202-551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Alan Campbell at 202-551-4224 or Joe McCann at 202-551-6262 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Anthony W. Epps