

October 7, 2022

XORTX Therapeutics Inc.
3710 – 33rd Street NW
Calgary, Alberta T2L 2M1
Canada

Dear Sir/Madam:

This letter agreement (this “**Letter Agreement**”) relates to the proposed public offering by XORTX Therapeutics Inc. (the “**Company**”) of securities pursuant to that certain Underwriting Agreement (the “**Underwriting Agreement**”), dated as of October 4, 2022, by and between the Company and the underwriters identified therein (the “**Offering**”). Terms not defined herein shall have the meaning ascribed to them in the Underwriting Agreement.

In connection with the Offering, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the undersigned investor (the “**Investor**”) hereby agree as follows:

From the date hereof until the date that is eighteen (18) months from the date of this letter, upon any sale in an offering of any type, including, without limitation, public offerings, registered direct offerings, and private investments in public equity, by the Company of any common shares traded on any public exchange, common share equivalents for cash consideration or a combination of units thereof (a “**Subsequent Financing**”), the Investor shall have the right to participate in the Subsequent Financing up to an amount equal to 50% of the Subsequent Financing on the same terms, conditions and price provided for in the Subsequent Financing, up to a 19.9% ownership in subject to Company to not create a control person transaction that would require the Company to obtain shareholder approval prior to the Subsequent Financing.

At least forty-eight (48) hours prior to the announcement of the pricing of the Subsequent Financing, the Company shall contact the Investor (by phone or email) of its intention to effect a Subsequent Financing (“**Pre-Notice**”), which Pre-Notice shall ask if the Investor wants to review the details of such financing (such additional notice, a “**Subsequent Financing Notice**”). Upon the Investor’s request, the Company shall promptly, deliver a Subsequent Financing Notice to the Investor. The Subsequent Financing Notice shall describe in reasonable detail the proposed terms of such Subsequent Financing, the amount of proceeds intended to be raised thereunder, and the person or persons through or with whom such Subsequent Financing is proposed to be effected.

If the Investor desires to participate in such Subsequent Financing, the Investor must provide written notice to the Company by no later than twenty-four (24) hours after the delivery of the Pre-Notice that it intends to participate in the Subsequent Financing, the amount of such participation, and representing and warranting that it has such funds ready, willing, and available for investment on the terms set forth in the Subsequent Financing Notice. If the Company

receives no such notice from the Investor by such time, the Investor shall be deemed to have waived its right to participate in that Subsequent Financing. To the extent that the Investor waives its right to participate in any Subsequent Financing, such waiver shall be limited to that specific Subsequent Financing, and the Investor shall retain the right of participation provided for in this Letter Agreement until its expiration, as provided for herein.

From the date hereof until ninety (90) days from the date hereof (the “**Restricted Period**”), neither the Company nor any subsidiary shall (i) issue, enter into any agreement to issue, or announce the issuance or proposed issuance of any Shares or Share Equivalents, or (ii) file or amend any registration statement or prospectus, other than as necessary to maintain the registration of the Securities acquired by the Investor in the Offering.

From the date hereof until the one (1) year anniversary of the date hereof, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its subsidiaries of Shares or Share Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. “**Variable Rate Transaction**” means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional Common Shares either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the Shares at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Shares or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit, whereby the Company may issue securities at a future determined price. The Purchaser shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages. Notwithstanding the foregoing, this prohibition set forth in this paragraph shall not apply in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance. “**Exempt Issuance**” means (i) the issuance of securities to directors, officers, employees and consultants of the Company pursuant to employee benefit plans, equity incentive plans or other employee compensation plans existing on the date hereof, (ii) securities pursuant to the exercise, exchange or conversion of any options, warrants, restricted share units, rights or convertible securities outstanding on the date hereof, provided that such options, warrants, restricted stock units, rights or convertible securities have not been amended since the date of this Letter Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities or to extend the term of such securities, (iii) securities issued in connection with any joint venture, commercial or collaborative relationship, or the acquisition or license by the Company of the securities, businesses, property or other assets of another person, provided that such issuance is approved by the majority of the disinterested directors of the Company and provided that such securities are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the Restricted Period.

This Letter Agreement and any claim or dispute of any kind or nature whatsoever arising out of or in any way relating this Letter agreement, directly or indirectly (including any claim

concerning advice provided pursuant to this Letter Agreement), shall be governed by and construed in accordance with the laws of the State of New York (without regard to conflicts of law principles). Any such claim or dispute may be commenced, presented or continued may be commenced only in a court of competent jurisdiction located in the County of New York, which courts shall have exclusive jurisdiction over the adjudication of such matters, and the Company and the Investor consent to the jurisdiction of such courts and personal services. Any rights to trial by jury with respect to any claim or proceeding related to, or arising out of, this Letter Agreement are waived by the Company and the Investor.

This Letter Agreement may be executed in any number of original or facsimile counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

This Letter Agreement shall be deemed severable, and the invalidity or unenforceability of any term or provision hereof shall not affect the validity or enforceability of this Letter Agreement or of any other term or provision hereof. Furthermore, in lieu of any such invalid or unenforceable term or provision, the parties hereto intend that there shall be added as a part of this Letter Agreement a provision as similar in terms to such invalid or unenforceable provision as may be possible and be valid and enforceable.

[Signature Page Follows]

Very truly yours,

ARMISTICE CAPITAL MASTER FUND LTD.

By: "Steven Boyd"
Name: Steven Boyd
Title: CIO of Armistice Capital, LLC,
the Investment Manager

ACKNOWLEDGED AND AGREED:

XORTX Therapeutics, Inc.

By: "Allen Davidoff"
Name: Allen Davidoff
Title: Director, President & CEO