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 November 2022

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 ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ____

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

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: November 10, 2022

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

EXHIBIT INDEX

99.1	Condensed Interim Consolidated Financial Statements for the nine months ended September 30, 2022
99.2	Management Discussion and Analysis for the nine months ended September 30, 2022
99.3	CEO Certificate
99.4	CFO Certificate

CONDENSED INTERIM CONSOLIDATED FINANCIAL STATEMENTS

For the three and nine months ended September 30, 2022 and 2021

(Unaudited - expressed in Canadian Dollars)

XORTX THERAPEUTICS INC.
Condensed Interim Consolidated Statements of Financial Position
(Unaudited - expressed in Canadian Dollars)

	Note	September 30, 2022	December 31, 2021
		$	$
Assets			
Current			
Cash and cash equivalents	**5**	12,160,047	18,851,244
Accounts receivable		86,546	51,539
Prepaid expenses	**6**	89,306	1,270,556
Deferred share issuance costs	**19**	614,795	-
		12,950,694	20,173,339
Non-current			
Contract payments	**7**	1,606,320	1,606,320
Intangible assets	**8**	260,372	256,243
Right-of-use asset	**9**	125,643	-
Equipment	**10**	17,747	-
Total Assets		**14,960,776**	**22,035,902**
Liabilities			
Current			
Accounts payable and accrued liabilities	**11,14**	1,855,792	700,999
Lease obligation – short-term	**12**	87,817	-
		1,943,609	700,999
Non-current			
Derivative warrant liability	**13(f)**	2,271,778	4,597,332
Lease obligation – long-term	**12**	38,617	-
Total Liabilities		**4,254,004**	5,298,331
Shareholders' Equity			
Share capital	**13**	20,009,154	20,009,154
Share-based payments, warrant reserve and other	**13**	6,922,760	6,386,459
Obligation to issue shares	**8(c)**	32,238	32,238

Deficit	(16,257,380)	(9,690,280)
Total Shareholders' Equity	10,706,772	16,737,571
Total Liabilities and Shareholders' Equity	**14,960,776**	**22,035,902**

Nature of Operations (Note 1)
Commitments (Note 17)
Subsequent Events (Note 19)

/s/ "Allen Davidoff"
Director

/s/ "Paul Van Damme"
Director

The accompanying notes are an integral part of these condensed interim consolidated financial statements.

XORTX THERAPEUTICS INC.
Condensed Interim Consolidated Statements of Comprehensive Loss
For the three and nine months ended September 30, 2022 and 2021
(Unaudited - expressed in Canadian Dollars)

	Note	Three months ended September 30 2022	Three months ended September 30 2021	Nine months ended September 30 2022	Nine months ended September 30 2021
		$	$	$	$
Expenses					
Amortization	**8,9,10**	28,788	4,526	46,023	13,143
Consulting	**14**	145,606	109,269	284,322	355,610
Directors' fees	**14**	59,377	39,500	103,931	39,500
General and administrative		153,010	6,263	462,418	30,087
Investor relations		131,436	118,947	952,976	384,072
Listing fees		32,766	36,858	114,734	88,314
Professional fees	**14**	73,407	(402,676)	462,364	201,697
Research and development	**14**	1,922,287	381,967	6,224,223	422,176
Share-based payments	**13(e),14**	25,147	62,221	536,301	355,662
Travel		110	-	14,679	2,100
Wages and benefits	**14**	173,008	48,000	569,078	148,412
Loss before other items		(2,744,942)	(404,875)	(9,771,049)	(2,040,773)
Fair value adjustment on derivative warrant liability	**13(f)**	473,360	(7,936,114)	2,325,554	(8,596,114)
Foreign exchange gain (loss)		662,828	(12,242)	813,744	(19,965)
Interest income (expense)		46,280	(1,382)	64,651	(3,929)
Transaction costs on derivative warrant liability	**13(b)**	-	-	-	(85,732)
Net loss and comprehensive loss for the period		(1,562,474)	(8,354,613)	(6,567,100)	(10,746,513)
Basic and diluted loss per common share		(0.12)	(0.89)	(0.51)	(1.19)
Weighted average number of common shares outstanding					
Basic and diluted		12,989,687	9,401,120	12,989,687	9,007,955

The accompanying notes are an integral part of these condensed interim consolidated financial statements.

XORTX THERAPEUTICS INC.
Condensed Interim Consolidated Statements of Changes in Shareholders' Equity
(Unaudited - expressed in Canadian Dollars)

	Note	Number of common shares	Share capital	Reserves	Obligation to issue shares	Deficit	Total
			$	$	$	$	$
Balance, December 31, 2020		**6,914,758**	**8,258,395**	**1,003,609**	**32,238**	**(8,037,998)**	**1,256,244**
Shares issued pursuant to private placement	**13(b)**	2,085,687	6,121,572	-	-	-	6,121,572

Warrants issued	**13(b)**	-	(2,932,000)	-	-	-	(2,932,000)
Share issuance costs	**13(b)**	-	(311,216)	195,000	-	-	(116,216)
Options exercised	**13(b)**	51,106	149,172	(65,172)	-	-	84,000
Warrants exercised	**13(b)**	451,583	1,695,584	(32,387)	-	-	1,663,197
Shares issued for services	**13(b)**	25,553	75,000	-	-	-	75,000
Share-based payments	**13(e)**	-	-	355,662	-	-	355,662
Net loss for the period		-	-	-	-	(10,746,513)	(10,746,513)
Balance, September 30, 2021		**9,528,687**	**13,056,507**	**1,456,712**	**32,238**	**(18,784,511)**	**(4,239,054)**
Shares issued pursuant to private placements	**13(b)**	-	(2,426,000)	-	-	-	(2,426,000)
Shares issued pursuant to IPO	**13(b)**	3,261,000	9,252,009	-	-	-	9,252,009
Share issuance costs	**13(b)**	-	(1,066,148)	326,251	-	-	(739,897)
Reclassification of derivative warrant liability	**13**	-	-	4,460,000	-	-	4,460,000
Warrants exercised	**13(b)**	200,000	1,192,786	-	-	-	1,192,786
Share-based payments	**13(e)**	-	-	143,496	-	-	143,496
Net income for the period		-	-	-	-	9,094,231	9,094,231
Balance, December 31, 2021		**12,989,687**	**20,009,154**	**6,386,459**	**32,238**	**(9,690,280)**	**16,737,571**
Share-based payments	**13(e)**	-	-	536,301	-	-	536,301
Net loss for the period		-	-	-	-	(6,567,100)	(6,567,100)
Balance, September 30, 2022		**12,989,687**	**20,009,154**	**6,922,760**	**32,238**	**(16,257,380)**	**10,706,772**

The accompanying notes are an integral part of these condensed interim consolidated financial statements.

XORTX THERAPEUTICS INC.
Condensed Interim Consolidated Statements of Cash Flows
For the nine months ended September 30, 2022 and 2021
(Unaudited - expressed in Canadian Dollars)

	Nine months ended September 30	
	2022	**2021**
	$	**$**
Cash provided by (used in):		
Operating activities		
Net loss for the period	(6,567,100)	(10,746,513)
Items not affecting cash:		
Amortization	46,023	13,143
Fair value adjustment on derivative warrant liability	(2,325,554)	8,596,114
Share-based payments	536,301	355,662
Shares issued for services	-	75,000
Unrealized foreign exchange (gain)	(790,211)	(2,156)
Changes in non-cash operating assets and liabilities:		
Accounts receivable	(35,007)	-
Prepaid expenses	1,178,684	(83,783)
Accounts payable and accrued liabilities	1,145,354	(316,379)
	(6,811,510)	(2,108,912)
Investing activities		
Acquisition of intangible assets	(18,774)	(22,783)
Acquisition of equipment	(19,562)	-
	(38,336)	(22,783)
Financing activities		
Proceeds from issuance of shares	-	6,121,572
Cash share issuance costs	-	(116,216)
Options exercised	-	84,000
Warrants exercised	-	1,490,083
Deferred share issuance costs	(614,795)	(621,408)
Payment of lease obligation	(28,772)	-
	(643,567)	6,958,031
Effect of foreign exchange (gain) on cash and cash equivalents	802,216	-
(Decrease) increase in cash and cash equivalents	(6,691,197)	4,826,336
Cash and cash equivalents, beginning of period	18,851,244	171,271
Cash and cash equivalents, end of period	12,160,047	4,997,607
Supplemental Cash Flow and Non-Cash Investing and Financing Activities Disclosure		

(Unaudited - expressed in Canadian Dollars)

Recognition of derivative warrant liabilities	-	2,932,000
Recognition of right-of-use asset	155,206	-

1. Nature of operations

XORTX Therapeutics Inc. (the "Company" or "XORTX") was incorporated under the laws of Alberta, Canada on August 24, 2012.

XORTX is a public company listed on the TSX Venture Exchange (the "TSXV") and on the Nasdaq Stock Market ("Nasdaq") under the symbol "XRTX". The Company's operations and mailing address is 3710 – 33rd Street NW, Calgary, Alberta, Canada T2L 2M1 and its registered address is located at 550 Burrard Street, Suite 2900, Vancouver, British Columbia, V6C 0A3.

XORTX is a late stage clinical pharmaceutical company focused on developing innovative therapies to treat progressive kidney disease modulated by aberrant purine and uric acid metabolism in orphan disease indications such as autosomal dominant polycystic kidney disease, as well as more prevalent type 2 diabetic nephropathy, and fatty liver disease. The Company's current focus is on developing products to slow and/or reverse the progression of kidney disease in patients at risk of end stage kidney failure.

The Company is subject to a number of risks associated with the successful development of new products and their marketing and the conduct of its clinical studies and their results. The Company will have to finance its research and development activities and its clinical studies. To achieve the objectives in its business plan, the Company plans to raise the necessary capital and to generate revenues. Although there is no certainty, management is of the opinion that additional funding for future projects and operations can be raised as needed. The products developed by the Company will require approval from the U.S. Food and Drug Administration and equivalent organizations in other countries before their sale can be authorized. If the Company is unsuccessful in obtaining adequate financing in the future, research activities will be postponed until market conditions improve.

In March 2020, the World Health Organization declared coronavirus COVID-19 a global pandemic. This contagious disease outbreak, which has continued to spread, and any related adverse public health developments, have adversely affected workforces, economies, and financial markets globally, potentially leading to an economic downturn. It is not possible for the Company to predict the duration or magnitude of the adverse results of the outbreak and its effects on the Company's business or results of operations at this time. To date, COVID-19 has had little impact on the Company's operations but may impact the Company's ability to obtain additional financing to support future research projects.

2. Basis of preparation

Statement of Compliance

These condensed interim consolidated financial statements have been prepared in accordance with International Accounting Standard 34 (IAS 34), Interim Financial Reporting as issued by the International Accounting Standards Board ("IASB") and interpretations of the IFRS Interpretations Committee ("IFRIC"). Accordingly, certain disclosures included in the annual financial statements prepared in accordance with International Financial Reporting Standards ("IFRS") have been condensed or omitted. These unaudited condensed interim consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements for the year ended December 31, 2021.

2. Basis of preparation (continued)

Basis of Measurement and Presentation

These condensed interim consolidated financial statements have been prepared using the historical cost convention except for financial instruments which have been measured at fair value as explained in the notes to these condensed interim consolidated financial statements. These condensed interim consolidated financial statements were prepared on an accrual basis except for cash flow information.

In the opinion of management, all adjustments (including normal recurring accruals) considered necessary for a fair presentation have been included. The accounting policies have been applied consistently to all periods presented in these condensed interim consolidated financial statements.

These condensed interim consolidated financial statements incorporate the financial statements of the Company and its 100% owned subsidiary. The accounts of the Company's subsidiary are prepared for the same reporting period as the parent company, using consistent accounting policies. Inter-company transactions, balances and unrealized gains or losses on transactions are eliminated.

These condensed interim consolidated financial statements were approved for issue by the Board of Directors on November 9, 2022.

3. Accounting policies

These condensed interim consolidated financial statements have been prepared on a basis consistent with the significant accounting policies disclosed in the annual financial statements for the year ended December 31, 2021. Accordingly, they should be read in conjunction with the annual consolidated financial statements for the year ended December 31, 2021, other than as noted below:

Equipment

Equipment is recorded at cost less accumulated amortization. The cost of an item of equipment includes expenditures that are directly attributable to the acquisition thereof. Amortization is calculated on bases and rates designed to amortize the cost of the assets over their estimated useful lives. Amortization is recorded using the straight-line method with an expectation of the following useful life estimates:

Computer equipment	3 years

Leases

At inception of a contract, the Company assesses whether a contract is, or contains a lease determining whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, we assess whether:

- the contract involves the use of an identified asset;
- the Company has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use; and
- the Company has the right to direct the use of the identified asset.

The right-of-use asset and corresponding lease obligation is recognized at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term. The lease term includes periods covered by an option to extend if the Company is reasonably

3. Accounting policies (continued)

Leases (continued)

certain to exercise that option. In addition, the right-of-use asset is reduced by impairment losses and adjusted for certain remeasurements of the lease obligation, if any.

The lease obligation is initially measured at the present value of the lease payments that are not paid at the commencement date. The lease payments are discounted using the implicit interest rate in the lease. If the rate cannot be readily determined, the Company's incremental rate of borrowing is used. The lease obligation is subsequently measured at amortized cost using the effective interest method. The lease obligation is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in our estimate of the amount expected to be payable under a residual value guarantee, if we change our assessment of whether we will exercise a purchase, extension or termination option, or if the underlying lease contract is amended.

The Company has elected not to separate fixed non-lease components from lease components and instead account for each lease component and associated fixed non-lease components as a single lease component.

The Company has elected not to recognize right-of-use assets and lease obligations for short-term leases that have a lease term of 12 months or less and for leases of low value assets. The lease payments associated with those leases are recognized as an expense on a straight-line basis over the lease term.

4. Critical accounting judgments and estimates

The preparation of condensed interim consolidated financial statements requires management to make judgments and estimates that affect the amounts reported in the condensed interim consolidated financial statements and notes. By their nature, these judgments and estimates are subject to change and the effect on the condensed interim consolidated financial statements of changes in such judgments and estimates in future periods could be material. These judgments and estimates are based on historical experience, current and future economic conditions, and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Actual results could differ from these judgments and estimates.

Revisions to accounting estimates are recognized in the period in which the estimate is revised and may affect both the period of revision and future periods. Information about critical accounting judgments in applying accounting policies that have the most significant risk of causing material adjustment to the carrying amounts of assets and liabilities recognized in the condensed interim consolidated financial statements within the next financial year are discussed below:

Share-based payment transactions and warrant liabilities
The Company measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the share option, volatility and dividend yield and making assumptions about them.

Warrant liabilities are accounted for as derivative liabilities as exercise price is not fixed or the proceeds from exercise is not known. The assumptions and models used for estimating fair value for share-based payment transactions and warrant liabilities are disclosed in Note 13.

4. Critical accounting judgments and estimates (continued)

Classification of contract payments
In concluding that contract payments are a non-current asset, management considered when future regulatory and clinical trial programs are anticipated to be completed. Management assessed that the future regulatory and clinical trial programs would not be completed within 12 months from period end and therefore reclassified contract payments as a non-current asset.

Impairment of intangible assets
Patents (obtained and pending) and licenses are reviewed for impairment at each financial reporting date. If, in the judgment of management, future economic benefits will not flow to the Company, then the Company will assess the recoverable value of the asset. If the carrying value is greater than the recoverable value, the asset will be impaired to the recoverable value.

Determination of functional currency
In concluding that the Canadian dollar is the functional currency of the Company and its subsidiary, management considered the currency that mainly influences the cost of providing goods and services in the primary economic environment in which each entity operates, or if there has been a change in events or conditions that determined the

(Unaudited - expressed in Canadian Dollars)

primary economic environment.

Treatment of research and development costs
Costs to develop products are capitalized to the extent that the criteria for recognition as intangible assets in IAS 38 Intangible Assets are met. Those criteria require that the product is technically and economically feasible, the Company has the intention and ability to use the asset, and how the asset will generate future benefits. Management assessed the capitalization of development costs based on the attributes of the development project, perceived user needs, industry trends and expected future economic conditions. Management considers these factors in aggregate and applies significant judgment to determine whether the product is feasible. The Company has not capitalized any development costs as at September 30, 2022.

Leases
Value of right-of-use assets and lease obligations require judgement in determining lease terms such as extension options, determining whether a lease contract contains an identified asset to which the Company has the right to use substantially all of the economic benefits from the use of that asset and the incremental borrowing rate applied. The Company estimates the incremental borrowing rate based on the lease term, collateral assumptions and the economic environment in which the lease is denominated. Renewal options are only included if management is reasonably certain that the option will be renewed.

5. Cash and cash equivalents

The Company's cash equivalents consist of cash held of $3,106,676 (December 31, 2021 - $18,851,244) and interest-bearing deposits with the Company's bank totaling $9,053,371 (December 31, 2021 - $0). The current annual interest rate earned on these deposits is 2.40% (December 31, 2021 – 0%).

6. Prepaid expenses

The Company's prepaid expenses relate to the following:

	September 30 2022	December 31 2021
	$	$
Research and development	-	714,716
Insurance	2,200	441,388
Investor relations conferences and services	49,264	60,254
Consulting	25,000	50,000
Administrative services	12,842	4,198
	89,306	1,270,556

7. Contract payments

During the year ended December 31, 2020, the Company entered into an agreement with Prevail InfoWorks Inc. As part of the agreement, the Company paid $1,606,320 through the issuance of units in the private placement (US$1,200,000 at the exchange rate on the date of the transaction) to be applied to future regulatory and clinical trial programs. The 977,318 units issued were measured by reference to their fair value on the issuance date, which is equal to $1.64 per unit in the concurrent private placement.

8. Intangible assets

Cost	Total
	$
Balance, December 31, 2020	325,182
Additions	39,809
Balance, December 31, 2021	364,991
Additions	18,774
Balance, September 30, 2022	**383,765**

Accumulated amortization	Total
	$
Balance, December 31, 2020	90,866
Amortization	17,882
Balance, December 31, 2021	108,748
Amortization	14,645
Balance, September 30, 2022	**123,393**

Carrying values	Total
	$
At December 31, 2021	256,243
At September 30, 2022	**260,372**

The Company has licensed intellectual property from various third parties. The intangible assets relate solely to licensed intellectual property and there are no other classes of intangible assets. The intangible assets are as described below:

a) The Company has licensed from a third party (the "Licensor"), under patent rights purchase agreement dated July 9, 2013 and amended April 15, 2014, certain patents relating to allopurinol for the treatment of hypertension. The Company paid a total of $42,460 (US$40,000) to the Licensor per the terms of the agreement.

(Unaudited - expressed in Canadian Dollars)

8. Intangible assets (continued)

The Company will also pay the Licensor royalties on the cumulative net revenues from the sale or sublicense of the product covered under the patent license until the later of (i) the expiration of the last patent right covering the product; and (ii) the expiration of ten years from the date of the first commercial sales of a product.

b) Pursuant to a license agreement dated October 9, 2012, as amended on June 23, 2014, between the Company and the University of Florida Research Foundation, Inc. ("UFRF"), the Company acquired the exclusive license to certain intellectual property related to the use of all uric acid lowering agents to treat insulin resistance. The Company has paid or is obligated to pay UFRF the following considerations:

i) An annual license fee of US$1,000;
ii) Reimburse UFRF for United States and/or foreign costs associated with the maintenance of the licensed patents;
iii) The issuance to UFRF of 180,397 shares of common stock of the Company (160,783 have been issued to UFRF as at September 30, 2022 and December 31, 2021. Remaining shares to be issued are included in obligation to issue shares);
iv) Milestone payments of US$500,000 upon receipt of FDA approval to market licensed product in the United States of America and US$100,000 upon receipt of regulatory approval to market each licensed product in each of other jurisdictions;
v) Royalty payments of up to 1.5% of net sales of products covered by the license until the later of (i) the expiration of any patent claims; or (ii) 10 years from the date of the first commercial sale of any covered product in each country. Following commencement of commercial sales, the Company will be subject to certain annual minimum royalty payments that will increase annually to a maximum of US$100,000 per year; and
vi) UFRF is entitled to receive a royalty of 5% of amounts received from any sub-licensee that are not based directly on product sales, excluding payments received for research and development or purchases of the Company's securities at not less than fair market value.

UFRF may terminate the agreement if the Company fails to meet the above specified milestones.

9. Right-of-use asset

The Company entered into an office lease during the nine months ended September 30, 2022 for which a right-of-use asset was recognized. The carrying value of the right-of-use asset is as follows:

Cost	**Total**
	$
Balance, December 31, 2021 and 2020	-
Additions	155,206
Balance, September 30, 2022	**155,206**

Accumulated amortization	**Total**
	$
Balance, December 31, 2021 and 2020	-
Amortization	29,563
Balance, September 30, 2022	**29,563**

Carrying values	**Total**
	$
At December 31, 2021 and 2020	-
At September 30, 2022	**125,643**

10. Equipment

Cost	**Total**
	$
Balance, December 31, 2021 and 2020	-
Additions	19,562
Balance, September 30, 2022	**19,562**

Accumulated amortization	**Total**
	$
Balance, December 31, 2021 and 2020	-
Amortization	1,815
Balance, September 30, 2022	**1,815**

Carrying values	**Total**
	$
At December 31, 2021 and 2020	-
At September 30, 2022	**17,747**

11. Accounts payable and accrued liabilities

	September 30 2022	**December 31 2021**
	$	**$**
Trade payables	1,328,908	410,701
Accrued liabilities	526,884	290,298
Total	1,855,792	700,999

(Unaudited - expressed in Canadian Dollars)

12. Lease obligation

The Company entered into an office lease during the nine months ended September 30, 2022. The terms and the outstanding balances as at September 30, 2022 and December 31, 2021 are as follows:

	$
Right-of-use asset from office lease repayable in monthly instalments of $7,875 and an end date of February 29, 2024. The right-of-use asset and lease obligation were measured at the present value of the lease payments and discounted using an incremental borrowing rate of 7.71%.	
Balance, December 31, 2021 and 2020	-
Additions	155,206
Lease payments	(31,500)
Interest expense	2,728
Balance, September 30, 2022	**126,344**
Total lease obligations	126,434
Less: current portion	(87,817)
Non-current portion	38,617

The following is a schedule of the Company's future minimum lease payments related to the office lease obligation:

	$
$2022	23,625
2023	94,500
2024	15,750
Total minimum lease payments	133,875
Less: imputed interest	(7,441)
Total present value of minimum lease payments	126,434
Less: Current portion	(87,817)
Non-current portion	38,617

13. Share capital and reserves

a) Authorized and issued

Unlimited common shares – 12,989,687 issued at September 30, 2022 (December 31, 2021 - 12,989,687).

b) Issuances

Nine months ended September 30, 2022:

During the three and nine months ended September 30, 2022, no shares were issued.

13. Share capital and reserves (continued)

b) Issuances (continued)

Year ended December 31, 2021:

On February 9, 2021, the Company closed a private placement with the issuance of 2,085,687 units at a subscription price of $2.935 per unit for gross proceeds of $6,121,572. Each unit comprised one common share and one common share purchase warrant. Each warrant entitles the holder, on exercise, to purchase one additional common share in the capital of the Company, at a price of $4.70 for a period of five years from the issuance of the units, provided, however, that, if, at any time following the expiry of the statutory four month hold period, the closing price of the common shares is greater than $14.09 for 10 or more consecutive trading days, the warrants will be accelerated upon notice and the warrants will expire on the 30th calendar day following the date of such notice. In addition, the Warrants were subject to typical anti-dilution provisions and a ratchet provision that provided for an adjustment in the exercise price should the Company issue or sell common shares or securities convertible into common shares at a price (or conversion price, as applicable) less than the exercise price such that the exercise price would be amended to match such lower price.

The proceeds were allocated $5,358,000 to the derivative warrant liability (Note 13(f)) and the residual $763,572 was allocated to common shares

In connection with the private placement, the Company paid $171,347 in cash commissions, incurred additional issuance costs of $7,897 and issued 58,288 finders' warrants with a fair value of $150,000 (Note 13(d)). Each finders' warrant is exercisable into one common share at a price of $4.70 and having the same expiry, acceleration and anti-dilution provisions as the warrants included in the private placement. The costs were allocated between common shares and derivative warrant liability in proportion to their initial carrying amounts with $41,068 recorded as a reduction of equity and $287,946 recorded as transaction costs on derivative warrant liability.

(Unaudited - expressed in Canadian Dollars)

On October 15, 2021, the Company listed its common shares on the Nasdaq Stock Market ("Nasdaq") under the symbol "XRTX" and closed an underwritten public offering of 2,906,000 units (the "US IPO Offering"), with each unit consisting of one common share, no par value, and one warrant to purchase one common share at a public offering price of US$4.13 per Unit, for gross proceeds of $14,851,850 (US$12,001,780). The proceeds were allocated $7,425,000 to the derivative warrant liability (Note 13(f)) and the residual $7,426,850 was allocated to common shares.

The warrants have an initial exercise price of US$4.77 per share and have a term of five years. In addition, the Company granted the underwriters a 45-day option to purchase up to an additional 435,900 common shares and/or warrants to purchase up to an additional 435,900 common shares at the US IPO Offering price less the underwriting discounts. On October 15, 2021, the underwriter exercised its option to purchase additional warrants to purchase up to an additional 435,900 common shares.

On November 8, 2021, the underwriter partially exercised its 45-day option for 355,000 common shares at US$4.13 per share, resulting in additional gross proceeds to the Company of $1,825,159 (US$1,466,150) which increased the US IPO Offering to 3,261,000 common shares and 3,341,900 warrants.

In connection with the US IPO Offering, the Company incurred issuance costs of $2,300,549 and issued 145,300 finders' warrants with a fair value of $371,251. The costs were allocated between common shares and derivative warrant liability in proportion to their initial carrying amounts with $1,336,066 recorded as a reduction of equity and $1,335,734 recorded as transaction costs on derivative warrant liability.

13. Share capital and reserves (continued)

b) Issuances (continued)

The Company issued 51,106 common shares for the exercise of options in the amount of $84,000. A value of $65,172 was transferred from reserves to share capital as a result.

The Company issued 651,583 common shares for the exercise of warrants in the amount of $2,430,083. A value of $32,387 was transferred from reserves to share capital and a value of $425,900 was transferred from the derivative warrant liability to share capital as a result.

Pursuant to the terms of a consulting agreement, the Company issued 25,553 common shares with a fair value of $75,000 in exchange for services.

c) Common Share Purchase Warrants

A summary of the changes in warrants for the nine month period ended September 30, 2022 and the year ended December 31, 2021:

	Number of Warrants		Exercise price
Balance, December 31, 2020	1,555,317	$	2.94
Granted – February 9, 2021	2,085,687	$	4.70
Granted – October 15, 2021	3,341,900		*US$4.77
Exercised	(640,012)	$	3.34
Expired	(1,215,816)	$	2.94
Balance, December 31, 2021	5,127,076	$	5.58
Balance, September 30, 2022	**5,127,076**	**$**	**5.90**

*$6.54 at September 30, 2022 / $6.05 as at December 31, 2021

The weighted average contractual remaining life of the unexercised warrants was 3.81 years (2021 - 4.56 years).

The following table summarizes information on warrants outstanding at September 30, 2022:

Exercise Price	Number Outstanding	Expiry date	Remaining Contractual Life
$4.70	1,785,176	February 9, 2026	3.36 years
US$4.77	3,341,900	October 15, 2026	4.04 years

d) Finders' Warrants

A summary of the changes in finders' warrants for the period ended September 30, 2022 and the year ended December 31, 2021:

13. Share capital and reserves (continued)

d) Finders' Warrants (continued)

	Number of Warrants		Exercise price
Balance, December 31, 2020	11,896	$	1.64
Granted – February 9, 2021 – finders' warrants	58,288	$	4.70
Granted – October 15, 2021 – finders' warrants	145,300		*US$4.77

(Unaudited - expressed in Canadian Dollars)

Exercised	(11,571)	$	1.87
Expired	(1,193)	$	1.64
Balance, December 31, 2021	202,720	$	5.66
Balance, September 30, 2022	**202,720**	**$**	**6.02**

*$6.54 at September 30, 2022 / $6.05 as at December 31, 2021

The weighted average contractual remaining life of the unexercised finders' warrant was 3.85 years (2021 – 4.60 years).

The following table summarizes information on finders' warrants outstanding at September 30, 2022:

Exercise Price	Number Outstanding	Expiry date	Remaining Contractual Life
$4.70	57,420	February 9, 2026	3.36 years
US$4.77	145,300	October 15, 2026	4.04 years

The fair value of the finders' warrants issued on February 9, 2021 was estimated at $150,000 on the date of grant using Black-Scholes. The exercise price of the unit of $4.70; expected life of 5.0 years; expected volatility of 100%; risk free rate of 0.58%; and expected dividend yield of 0%.

The fair value of the finders' warrants issued on October 15, 2021 was estimated at $371,251 on the date of grant using Black-Scholes. The exercise price of the unit of US$4.77; expected life of 5.0 years; expected volatility of 100%; risk free rate of 1.5%; and expected dividend yield of 0%.

e) Stock Options

The Company has an incentive Stock Option Plan (the "Plan") for directors, officers, employees and consultants, under which the Company may issue stock options to purchase common shares of the Company provided that the amount of incentive stock options which may be granted and outstanding under the Plan at any time shall not exceed 10% of the then issued and outstanding common shares of the Company.

The fair value of stock options granted was estimated on the date of grant using the Black-Scholes model with the following data and assumptions:

	2022	2021
Dividend yield	Nil	Nil
Annualized volatility	100%	100%
Risk-free interest rate	1.44%-3.16%	0.36% - 1.19%
Expected life	5 years	5 years

The risk-free interest rate is the yield on zero-coupon Canadian Treasury Bills of a term consistent with the assumed option life. The expected life of the option is the average expected period to exercise.

13. Share capital and reserves (continued)

e) Stock Options (continued)

Volatility is based on available historical volatility of the Company's share price or historical share price of comparable companies, excluding specific time frames in which volatility was affected by specific transactions that are not considered to be indicative of the Company's expected share price volatility. The Company has not declared dividends in the past.

The share-based payment expense recognized was $25,147 and $536,301 during the three and nine months ended September 30, 2022 (2021 - $62,221 and $355,662).

A summary of the changes in stock options for the period ended September 30, 2022 and the year ended December 31, 2021:

	Number of Options		Exercise price
Balance, December 31, 2020	464,207	$	3.29
Granted – January 11, 2021	59,624	$	3.29
Granted – May 12, 2021	42,588	$	1.88
Granted – June 16, 2021	21,294	$	1.76
Granted – July 14, 2021	63,882	$	2.41
Granted – December 21, 2021	86,495	$	2.54
Exercised	(51,106)	$	1.64
Expired	(80,917)	$	3.40
Balance, December 31, 2021	**606,067**	**$**	**3.10**
Granted – January 12, 2022	127,500	$	2.54
Granted – June 6, 2022	394,822	$	1.60
Expired	(31,294)	$	2.09
Balance, September 30, 2022	**1,097,095**	**$**	**2.52**
Vested and exercisable, September 30, 2022	**849,934**	**$**	**2.65**

The weighted average contractual remaining life of the unexercised options was 3.55 years (2021 - 3.42 years).

The following table summarizes information on stock options outstanding at September 30, 2022:

(Unaudited - expressed in Canadian Dollars)

Exercise Price	Number Outstanding	Number Exercisable	Expiry Date	Remaining Contractual Life
$5.87	12,776	12,776	December 31, 2022	0.25 years
$5.87	114,984	114,984	March 19, 2023	0.47 years
$5.87	21,294	21,294	November 5, 2023	1.10 years
$1.64	170,354	140,542	June 23, 2025	2.73 years
$2.82	12,776	12,776	August 27, 2025	2.91 years
$3.29	59,624	59,624	January 11, 2026	3.28 years
$1.88	21,294	21,294	May 12, 2026	3.62 years
$1.76	21,294	21,294	June 16, 2026	3.71 years
$2.41	63,882	24,843	July 14, 2026	3.79 years
$2.54	86,495	86,495	December 21, 2026	4.23 years
$2.54	117,500	26,111	January 12, 2027	4.29 years
$1.60	394,822	307,901	June 6, 2027	4.68 years
	1,097,095	**849,934**		

13. Share capital and reserves (continued)

f) Derivative warrant liability

Private Placement Warrants

During the year ended December 31, 2021, the Company issued 2,085,687 warrants for the Company's common shares pursuant to a financing in February 2021 as described above.

The warrants issued as part of the unit contain a ratchet provision that provides for an adjustment in the exercise price if shares or securities convertible to shares are sold at a price lower than the exercise price. Therefore, since the warrants (not including compensation warrants) may be settled other than by the exchange of a fixed amount of cash, they meet the definition of a derivative financial liability.

The fair value of the warrants was estimated at $5,358,000 on the date of grant using the Black-Scholes model with the following assumptions: share price on date of grant of $3.64; exercise price of the warrant of $4.70; expected life of 5.0 years; expected volatility of 100%; risk free rate of 0.58%; and expected dividend yield of 0%.

During the year ended December 31, 2021, 640,012 of these warrants were exercised and a value of $425,900 was transferred from the derivative warrant liability to share capital as a result. On October 15, 2021, the ratchet provision expired when the Company listed its common shares on the Nasdaq. As a result of the expiry, the warrants would now be settled by a fixed amount of cash and were reclassified as an equity instrument. The fair value of the derivative warrant liability as of October 15, 2021 of $4,460,000 was reclassified to reserves.

During the year ended December 31, 2021, the Company issued warrants for the Company's common shares pursuant to the US IPO Offering discussed above. These warrants were recorded as a derivative financial liability as the exercise price of the units is denominated in a currency other than the functional currency of the Company and therefore may be settled other than by the exchange of a fixed amount of cash. The fair value of the warrants was estimated at $7,425,000 on the date of grant using the Black-Scholes model with the following assumptions: share price on date of grant of US$3.02; exercise price of the warrant of US$4.77; expected life of 5.0 years; expected volatility of 100%; risk free rate of 1.50%; and expected dividend yield of 0%.

The balance of the derivative warrant liabilities (level 3) is as follows:

Balance at December 31, 2020	**$**	**-**
Warrants issued February 9, 2021		5,358,000
Warrants exercised		(425,900)
Fair value adjustment		(472,100)
Fair value reclassified to reserves		(4,460,000)
Warrants issued October 15, 2021		7,425,000
Fair value adjustment		(2,827,668)
Balance at December 31, 2021	**$**	**4,597,332**
Fair value adjustment		(2,325,554)
Balance at September 30, 2022	**$**	**2,271,778**

13. Share capital and reserves (continued)

f) Derivative warrant liability (continued)

Significant assumptions used in determining the fair value of the derivative warrant liabilities at September 30, 2022 and December 31, 2021 are as follows:

		September 30, 2022		December 31, 2021
Share price	**$**	**1.21**	**$**	**2.05**

(Unaudited - expressed in Canadian Dollars)

Risk-free interest rate	**3.44%**	**1.23%**
Dividend yield	**0%**	**0%**
Expected volatility	**100%**	**100%**
Remaining term (in years)	**4.0**	**4.8**

The fair value is classified as level 3 as expected volatility is determined using historical volatility and is therefore not an observable input.

14. Related party transactions

All related party transactions were measured at the amount of consideration established and agreed to by the related parties. All amounts due from/payable to related parties are unsecured, non-interest bearing and have no fixed terms of repayment.

During the three and nine months ended September 30, 2022 and 2021, the Company incurred the following transactions with related parties:

a) Wages and benefits were accrued to Allen Davidoff, the Chief Executive Officer ("CEO"), Amar Keshri, the Chief Financial Officer ("CFO"), and David MacDonald, former Chief Technology Officer ("CTO") of the Company in the amount of $146,952 and $518,788 (2021 - $48,000 and $148,412).

b) Professional fees were accrued to 1282803 Ontario Inc., a company owned by Jim Fairbairn, a former CFO of the Company in the amount of $nil and $nil (2021 - $nil and $34,500).

c) Research and development fees were accrued to Haworth Biopharmaceutical, a company owned by Stephen Haworth, the Chief Medical Officer ("CMO") of the Company in the amount of $74,607 and $217,569 (2021 - $nil and $nil).

d) Consulting fees were accrued to Bruce Rowlands and Allan Williams, former directors of the Company in the amount of $nil and $nil (2021 - $9,000 and $47,000).

e) Directors' fees were accrued to the directors of the Company in the amount of $59,377 and $103,931 (2021 - $39,500 and $39,500). The amount includes salary payment of $43,077 and $49,231 for the three and nine months ended September 30, 2022 (2021 - $nil and $nil) to Anthony Giovinazzo, Chairman of the Company.

14. Related party transactions (continued)

f) As at September 30, 2022, $16,300 (December 31, 2021 - $81,104) was payable to directors of the Company, $nil (December 31, 2021 - $25,000) was accrued to the CEO of the Company, for CEO services, and $49,862 (December 31, 2021 - $47,543) was payable and accrued to the CMO of the Company, for consulting services. The balances are unsecured, non-interest bearing, and have no fixed terms of repayment.

g) Management compensation transactions for the three and nine months ended September 30, 2022 and 2021 are summarized as follows:

	Short-term employee benefits	Directors' fees	Share-based payments	Total
	$	$	$	$
Three months ended September 30, 2021				
Directors and officers	48,000	39,500	31,027	118,527
Three months ended September 30, 2022				
Directors and officers	**225,140**	**59,377**	**47,418**	**331,935**

	Short-term employee benefits	Directors' fees	Share-based payments	Total
	$	$	$	$
Nine months ended September 30, 2021				
Directors and officers	148,412	39,500	214,621	402,533
Nine months ended September 30, 2022				
Directors and officers	**741,019**	**103,931**	**475,969**	**1,320,919**

15. Financial instruments and risk management

The Company's financial instruments consist of cash and cash equivalents, accounts payable and accrued liabilities, lease obligation and derivative warrant liability. Cash and cash equivalents is classified as a financial asset at FVTPL, accounts payable and accrued liabilities and lease obligation are classified as financial liabilities at amortized cost and warrant liability is classified as a financial liability at FVTPL.

The fair values of these financial instruments, other than derivative warrant liability, approximate their carrying values at September 30, 2022, due to their short-term nature.

The Company thoroughly examines the various financial instruments and risks to which it is exposed and assesses the impact and likelihood of those risks. These risks include foreign currency risk, interest rate risk, market risk, credit risk, and liquidity risk. Where material, these risks are reviewed and monitored by the Board of Directors

There have been no changes in any risk management policies since December 31, 2021.

(Unaudited - expressed in Canadian Dollars)

16. Capital management

The Company defines capital that it manages as shareholders' equity. The Company manages its capital structure in order to have funds available to support its research and development and sustain the future development of the business. When managing capital, the Company's objective is to ensure the entity continues as a going concern as well as to maintain optimal returns to shareholders and benefits for other stakeholders. Management adjusts the capital structure as necessary in order to support its activities.

Since inception, the Company's objective in managing capital is to ensure sufficient liquidity to finance its research and development activities, general and administrative expenses, expenses associated with intellectual property protection and its overall capital expenditures. There were no changes during the nine months ended September 30, 2022. The Company is not exposed to external requirements by regulatory agencies regarding its capital.

17. Commitments

The Company has long-term arrangements with commitments that are not recognized as liabilities as at September 30, 2022 and December 31, 2021 are as follows:

a) Employment Agreements

	September 30 2022	December 31 2021
	$	$
Management services – officers	507,210	476,000

The President, CEO and a director of the Company has a long-term employment agreement with the Company. The agreement has a termination clause whereby he is entitled to the equivalent of 12 times his then current monthly salary which, as of September 30, 2022 and December 31, 2021, equated to an annual salary of US$300,000.

The CFO of the Company has a long-term employment agreement with the Company. The agreement has a termination clause whereby he is entitled to the equivalent of 6 times his then current monthly salary which as of September 30, 2022 and December 31, 2021, equated to an annual salary of $192,000.

b) Payments

In the normal course of business, the Company has committed to payments totaling $8,680,274 (2021 - $1,613,142) for activities related to its clinical trial, manufacturing, collaboration programs and other regular business activities which are expected to occur over the next two years.

18. Segmented information

The Company operates in one reportable operating segment, being the development and commercialization of therapies to treat progressive kidney disease. As the operations comprise a single reporting segment, amounts disclosed also represent segment amounts. All long-term assets of the Company are located in Canada.

19. Subsequent events

On October 7, 2022, the Company closed an underwritten public offering of: (i) 1,400,000 common share units ("Common Share Units"), with each Common Share Unit consisting of one common share, no par value, and one warrant ("Warrant") to purchase one common share at a public offering price of US$1.00 per Common Share Unit, and (ii) 3,600,000 pre-funded warrant units ("Pre-Funded Units" and together with the Common Share Units, the "Units"), with each Pre-Funded Unit consisting of one pre-funded warrant ("Pre-Funded Warrant") to purchase one common share and one Warrant to purchase one common share at a public offering price of US$0.9999 per Pre-Funded Unit, for aggregate gross proceeds of US$5 million, prior to deducting underwriting discounts and other offering expenses and excluding any exercise of the underwriters' option to purchase any additional securities as described herein (the "Offering"). The common shares and Warrants contained in the Common Share Units and the Pre-Funded Warrants and Warrants contained in the Pre-Funded Units are immediately separable upon issuance. The Warrants have an initial exercise price of US$1.22 per share, are immediately exercisable, and may be exercised for five years from the date of issuance. The Pre-Funded Warrants have an exercise price of US$0.0001 per share, are immediately exercisable, and will terminate once exercised in full.

Further to an investment made in connection with the Offering, the Company entered into an agreement, approved by the TSXV, to reduce the exercise price of outstanding warrants to purchase up to 910,000 shares of common stock issued in the 2021 public offering (the "Prior Warrants") and held by investors in this Offering from US$4.77 per share to US$1.17 per share, effective upon the closing of the Offering. All other terms of the Prior Warrants remained the same.

As at September 30, 2022, there were $614,795 in deferred share issuance costs in connection with the Offering.

XORTX THERAPEUTICS INC.
Management Discussion and Analysis
For the nine months ended September 30, 2022

This management discussion and analysis of financial position and results of operations ("**MD&A**") is prepared as at November 10, 2022 and should be read in conjunction with the unaudited condensed interim consolidated financial statements for the three and nine months ended September 30, 2022 of XORTX Therapeutics Inc. (the "**Company**" or "**XORTX**"), together with the audited financial statements of the Company for the year ended December 31, 2021, as well as the accompanying MD&A for the period then ended (the "**Annual MD&A**").

The referenced unaudited condensed interim consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("**IFRS**"), including International Accounting Standard 34, Interim Financial Reporting, as issued by the International Accounting Standards Board ("**IASB**") and Interpretations of the IFRS Interpretations Committee ("**IFRIC**"). All dollar amounts included therein and in the following MD&A are expressed in Canadian dollars except where noted.

The Company's critical accounting estimates, significant accounting policies and risk factors as disclosed in the Annual MD&A have remained substantially unchanged and are still applicable to the Company unless otherwise indicated.

In this discussion, unless the context requires otherwise, references to "we" or "our" are references to XORTX Therapeutics Inc.

CORPORATE INFORMATION

XORTX was incorporated under the laws of Alberta, Canada on August 24, 2012, under the name ReVasCor Inc. and continued under the Canada Business Corporations Act on February 27, 2013, under the name of XORTX Pharma Corp. Upon completion of a reverse take-over transaction on January 10, 2018, with APAC Resources Inc., a company incorporated under the laws of British Columbia, the Company changed its name to "XORTX Therapeutics Inc." and XORTX Pharma Corp. became a wholly-owned subsidiary. The Company's operations and mailing address is 3710 – 33rd Street NW, Calgary, Alberta, Canada T2L 2M1 and its registered address is located at 550 Burrard Street, Suite 2900, Vancouver, British Columbia, V6C 0A3. The Company's shares trade on the TSX Venture Exchange (" **TSXV**"), on the Nasdaq Stock Exchange ("**Nasdaq**") under the symbol "XRTX", and on the Börse Frankfurt under the symbol "ANU".

FORWARD LOOKING STATEMENTS

This MD&A contains certain statements, other than statements of historical fact that are forward-looking statements, which reflect the current view of the Company with respect to future events including corporate developments, financial performance and general economic conditions which may affect the Company.

All statements other than statements of historical fact contained in this MD&A, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

The words "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward- looking statements include, among other things, statements about:

- 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;
- our ability to obtain and maintain regulatory approval of XORLO™ and any other product candidates we may develop, and the labeling under any approval we may obtain;
- regulatory approvals and other regulatory developments in the United States and other countries;
- the performance of third-party manufacturers and contract research organizations;
- our plans to develop and commercialize our product candidates;
- our ability to obtain and maintain intellectual property protection for our product candidates;
- the successful development of our sales and marketing capabilities;
- the potential markets for our product candidates and our ability to serve those markets;
- the rate and degree of market acceptance of any future products;
- the success of competing drugs that are or become available; and
- the loss of key scientific or management personnel.

XORTX relies on certain key expectations and assumptions in making the forecasts, projections, predictions or estimations set out in forward-looking information. These factors and assumptions are based on information available at the time that the forward-looking information is provided. These include, but are not limited to, expectations and assumptions concerning:

- the availability of capital on acceptable terms to fund planned expenditures;
- prevailing regulatory, tax and environmental laws and regulations; and
- the ability to secure necessary personnel, equipment and services.

Undue reliance should not be placed on forward-looking information because a number of risks and factors may cause actual results to differ materially from those set out in such forward-looking information. These include:

- incorrect assessments of the value of acquisitions, licenses and development programs;
- technical, manufacturing and processing problems;
- actions by governmental authorities, including increases in taxes;
- the availability of capital on acceptable terms;
- fluctuations in foreign exchange, currency, or interest rates and stock market volatility;
- failure to realize the anticipated benefits from licenses or acquisitions;
- the other factors specifically identified as risk factors in this MD&A; and
- potential labour unrest.

Readers are cautioned that the foregoing list of factors should not be construed as exhaustive. Further information relating to risks is included in this MD&A under Risks

Related to the Business.

Except as may be required by applicable law or stock exchange regulation, XORTX undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this document or to reflect the occurrence of unanticipated events. Accordingly, readers should not place undue reliance on forward-looking statements. If XORTX does update one or more forward-looking statements, no inference should be drawn that additional updates will be made with respect to those or other forward-looking statements. Additional information relating to the Company is available by accessing the SEDAR website at www.sedar.com.

BUSINESS OVERVIEW

XORTX is a late stage clinical pharmaceutical company, focused on developing innovative therapies to treat progressive kidney disease modulated by aberrant purine and uric acid metabolism in orphan (rare) disease indications such as autosomal dominant polycystic kidney disease ("**ADPKD**") and larger, more prevalent type 2 diabetic nephropathy ("**T2DN**") as well as acute kidney injury ("**AKI**") associated with coronavirus infection.

Our focus is on developing three therapeutic products to:

1/ slow or reverse the progression of chronic kidney disease in patients at risk of end stage kidney failure;
2/ address the immediate need of individuals facing AKI associated with coronavirus; and
3/ the identification of other opportunities where our existing and new intellectual property can be leveraged to address health issues.

We believe that our technology is underpinned by well-established research and insights into the underlying biology of aberrant purine metabolism, chronically high serum uric acid and its health consequences. Our aim is to advance novel proprietary formulations of oxypurinol, a uric acid lowering agent that works by effectively inhibiting xanthine oxidase. We develop therapeutic products that include new or existing drugs that can be adapted to address different disease indications where aberrant purine metabolism and/or elevated uric acid is a common denominator, including polycystic kidney disease, pre-diabetes, insulin resistance, metabolic syndrome, diabetes, diabetic nephropathy, and infection. We are focused on building a pipeline of assets to address the unmet medical needs for patients with a variety of serious or life-threatening diseases using our innovative formulation of oxypurinol, and our proprietary pipeline-in-a-product strategy supported by our intellectual property, established exclusive manufacturing agreements, and proposed clinical trials with experienced clinicians,

Our three lead product candidates are XRx-008, for the treatment of ADPKD; XRx-101, to treat AKI associated with Coronavirus / COVID-19 infection, AKI and associated health consequences; and XRx- 225, for the treatment of T2DN. At XORTX, we aim to redefine the treatment of kidney diseases by developing medications to improve the quality of life of patients with life threatening diseases by modulating aberrant purine and uric acid metabolism, including lowering elevated uric acid as a therapy.

Our Proprietary Therapeutic Platforms

Our expertise and understanding of the pathological effects of aberrant purine metabolism combined with our understanding of uric acid lowering agent structure and function, has enabled the development of our proprietary therapeutic platforms. These are a complementary suite of therapeutic formulations and new chemical entities designed to provide unique solutions for acute and chronic disease. Our therapeutic platforms can be used alone, or in combination, with synergistic activity to develop a multifunctional tailored approach to a variety of indications that can address disease in multiple body systems through management of chronic or acute hyperuricemia, immune modulation, and metabolic disease. We continue to leverage these therapeutic platforms to expand our pipeline of novel and next generation drug-based therapies that we believe could represent significant improvements to the standard of care in multiple acute and chronic cardiovascular diseases and specifically kidney disease.

We believe our in-house drug design and formulation capabilities confer a competitive advantage to our therapeutic platforms and are ultimately reflected in our programs. Some of these key advantages are:

Highly Modular and Customizable

Our platforms can be combined in multiple ways and this synergy can be applied to address acute, intermittent or chronic disease progression. For example, our XRx-101 program for AKI associated with coronavirus is designed to produce rapid suppression of hyperuricemia then maintain purine metabolism at a low level during viral infection and target management of acute organ injury. Our XRx-008 program is designed for longer term stable chronic oral dosing of xanthine oxidase inhibitors. We believe that the capabilities of our formulation technology allow us to manage the unique challenges of cardiovascular and renal disease by modulating purine metabolism, inflammatory and oxidative state.

Fit-for-purpose

Our platforms can also be utilized to engineer new chemical entities and formulations of those agents that have enhanced properties For example, our XRx-225 product candidate program, some of the intellectual property for which we license from third parties, represents a potential new class of xanthine oxidase inhibitor(s) with a targeted design to enhance anti-inflammatory activity. The capability of tailoring the therapeutic benefit of this class of new agents permits us to identify targets and disease that we wish to exploit and then, through formulation design, optimize those small molecules and proprietary formulations to maximize clinically meaningful therapeutic effect.

Readily scalable and transferable

Our in-house small molecule and formulations design expertise is positioned to create a steady succession of product candidates that are scalable, efficient to manufacture (by us or a partner or contract manufacturing organization) and produce large scale and high purity active pharmaceutical drug product. We believe this will provide a competitive advantage, new intellectual property and opportunity to provide first-in-class products that target unmet medical needs and clinically meaningful quality of life.

Our team's expertise in uric acid lowering agents, specifically in the development and use of xanthine oxidase inhibitors, has enabled the development of our therapeutic product candidates to treat the symptoms of, and potentially delay the progression of ADPKD, AKI associated with COVID-19 infection, and T2DN. We note that there is no guarantee that the United States Food and Drug Administration ("FDA") will approve our proposed uric acid lowering agent products for the treatment of kidney disease or the health consequences of diabetes.

Product Candidate Pipeline

Our lead product candidates are XRx-008, XRx-101, and XRx-225. The XRx-008 program has completed enrollment of subjects and reported topline results for part 1 and part 2 of this 4-part bridging pharmacokinetic characterization study (the "**PK Study**") in advance of initiating a Phase 3 registration clinical trial, the last stage of clinical development before FDA approval. Similarly, a second "pharmacokinetic" study is planned to support both the XRx-008 and XRx-101 program and future late-stage clinical studies targeting attenuation or reversal of AKI in hospitalized individuals with COVID-19. XRx-225 is at the non-clinical stage and advancing toward the clinical development stage.

Products

The Company's most advanced development program, XRx-008, is a late clinical stage program focused on demonstrating the potential of our novel therapy for ADPKD. XRx-008 is the development name given to XORTX's therapeutics program and associated proprietary oral formulation of oxypurinol. This proprietary formulation of oxypurinol has shown increased oral bioavailability compared to a control formulation and the potential for an enhanced therapeutic range. XORTX is also developing a second oral formulation of oxypurinol, XRx-101, for use in treating patients with AKI associated with respiratory virus infection and/or associated co-morbidities including sepsis.

XORTX is currently evaluating novel xanthine oxidase inhibitor candidates for the XRx-225 program to treat T2DN as well as developing new chemical entities to address other orphan and large market unmet medical need.

Patents

XORTX is the exclusive licensee of two U.S. and European granted patents with claims to the use of all uric acid lowering agents to treat insulin resistance or diabetic nephropathy. In both the US and Europe, XORTX has been granted patents for unique proprietary formulations of xanthine oxidase inhibitors. In addition, XORTX has also submitted two patent applications to cover the use of uric acid lowering agents for the treatment of certain health consequences of coronavirus infection, as well as a new provisional patent for novel therapeutics to treat polycystic kidney disease.

OUR STRATEGY

The Company's goal is to apply our interdisciplinary expertise and pipeline-in-a-product strategy to further identify, develop and commercialize novel treatments in orphan indications, with an initial focus on renal and significant unmet medical needs.

Our ability to implement our business strategy is subject to numerous risks. These risks include, among others (see "Risks Related to the Business"):

- we have incurred significant losses since inception and anticipate that we will continue to incur losses for the foreseeable future;
- we will require substantial additional funding, which may not be available to us on acceptable terms, or at all, and, if not available, may require us to alter, delay, scale back, or cease our product development programs or operations;
- we have not generated any revenue to date and may never be profitable;
- we have a limited number of product candidates, all of which are still in preclinical or clinical development, and we may fail to obtain regulatory approval or experience significant delays in doing so;
- our product candidates may have undesirable side effects that may delay or prevent marketing approval or, if approved, require them to be taken off the market, require them to include safety warnings or otherwise limit their sales;
- we may be unable to obtain regulatory approval for our product candidates under applicable regulatory requirements, and the denial or delay of any such approval would delay commercialization of our product candidates and adversely impact our potential to generate revenue, our business and our results of operations;
- security breaches, loss of data and other disruptions could compromise sensitive information related to our business or protected health information or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation;
- the COVID-19 pandemic may materially and adversely affect our business and financial results;
- our existing strategic partnerships are important to our business, and future strategic partnerships may also be important to us; if we are unable to maintain any of these strategic partnerships, or if these strategic partnerships are not successful, we may not realize the anticipated benefits of our strategic partnerships and our business could be adversely affected;
- we rely on third parties to monitor, support, conduct and oversee clinical trials of the product candidates that we are developing and, in some cases, to maintain regulatory files for those product candidates;
- our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties;
- our patents covering one or more of our products or product candidates could be found invalid or unenforceable if challenged;

- if we are unable to obtain, maintain and enforce patent and trade secret protection for our product candidates and related technology, our business could be materially harmed; and
- if we are unable to protect the confidentiality of our proprietary information, the value of our technology and products could be adversely affected.

Funding Requirements

The Company has not generated any revenue from product sales to date and does not expect to do so until such time as XORTX obtains regulatory approval for and commercializes one or more of our product candidates. As the Company is currently in clinical and preclinical stages of development, it will be some time before we expect to achieve this, and it is uncertain that we ever will. We expect that we will continue to increase our operating expenses in connection with ongoing clinical trials and preclinical activities and the development of product candidates in our pipeline. We also expect to continue our strategic partnerships and we continue to seek additional collaboration opportunities. Further, we expect to continue our efforts to pursue additional grants and refundable tax credits from the Canadian government in order to further our research and development. Although it is difficult to predict our funding requirements, based upon our current operating plan, the Company anticipates that our existing cash and cash equivalents as of September 30, 2022, combined with the net proceeds of future financings, will enable us to advance the clinical development of XRx-008 and XRx-101 product candidates. XORTX may also be eligible to receive certain research, development, and commercial milestone payments in the future. However, because successful development of our product candidates and the achievement of milestones by our strategic partners is uncertain, we are unable to estimate the actual funds we will require to complete the research, development, and commercialization of product candidates.

RECENT DEVELOPMENTS

Regulatory Advancements

On March 14, 2022, the Company announced the submission of its clinical trial application ("**CTA**") with Health Canada for a XRX-OXY-101 bridging pharmacokinetics study. The study is an important first clinical step in the Company's 505(b)2 clinical and regulatory plan for 2022 and will support the XRx-008 program for ADPKD as well as the planned phase 3 registration trial.

On March 23, 2022, the Company announced the submission of a Patent Cooperation Treaty (PCT) patent application seeking international patent protection for the patent entitled "Composition and Methods for Enhancing Anti-Viral Therapies."

On March 31, 2022, the Company announced the filing of an IND application with the FDA. This IND filing is in support of the Company's XRx-008 program for treatment of progressing kidney disease due to ADPKD and contains the protocol for the PK Study – XRX-OXY-101 discussed below.

On April 7, 2022, the Company announced receipt of notification that the patent "Formulations of Xanthine Oxidase Inhibitors" will be granted by the United States Patent Office (USPTO). The patent covers composition for, and methods of using XORTX's proprietary formulations of xanthine oxidase inhibitors for renal and other disease where aberrant purine metabolism has been implicated in disease progression.

On April 12, 2022, the Company announced receipt of a no objection letter from Health Canada regarding the Company's upcoming XRX-OXY101 clinical PK Study. The XRX-OXY-101 study has been designed with three important objectives: 1) to determine which of XORTX's novel formulations results in the best circulating oxypurinol concentrations; 2) to determine the effect of food on the bioavailability of this formulation; and 3) to determine the safety and pharmacokinetics of multiple doses of this selected formulation. Knowledge gained during the conduct of this trial will provide guidance regarding the future oral dosing of oxypurinol formulations in support of the Company's planned phase 3 registration trial in ADPKD. Additionally, this study will provide data to support future New Drug Application ("**NDA**") marketing submissions to the FDA and the European Medicines Agency ("**EMA**").

On April 20, 2022, the Company announced receipt of Small and Medium Enterprise ("**SME**") status for the European Union (the "**EU**"). This status is applicable for European Medicines Agency ("EMA") related interactions and confirmed by the SME office – Regulatory Science and Innovation Task Force. SME status provides reduced costs to the Company as it initiates discussions with the FDA and EMA regarding the upcoming XRX-OXY-301 phase 3 registration trial for XRx-008 and other clinical programs.

On May 3, 2022, the Company announced that dosing of human subjects has been initiated in the XRX- OXY-101 bridging pharmacokinetics study. In addition, successful recruitment for part 1 of this three-part (now four-part) clinical trial has been completed with 32 subjects receiving study drug. Following administration of the first dose of drug, blood sampling and bioanalytical evaluation will be conducted to characterize the pharmacokinetics (PK) and bioavailability of the XRx-008 program's novel proprietary formulations of oxypurinol for future clinical trials development. Additionally, this PK study will provide fundamental information for the 505(b)2 marketing approval filing of the XRx-008 program.

On May 5, 2022, the Company announced receipt of official notification from the FDA that the Company's recent IND application has been reviewed and cleared. Accompanying this notification is a "Study May Proceed Letter" regarding the XRX-OXY-101 PK Study. This FDA approval of the IND supports the Company's XRx-008 program for treatment of progressing kidney disease due to ADPKD.

On July 7, 2022, following the successful regulatory filings with the FDA and Health Canada and commencement of the OXY-XRX-101 bridging pharmacokinetics study, the Company has submitted a type B pre-Phase 3 meeting request with the FDA.

On July 13, 2022, the Company announced positive topline results from Part 1 of the three-part (now four part) Pharmacokinetics Bridging Study – XRX-OXY-101 ("PK Clinical Trial") - showing a substantial increase in oral bioavailability of two versions of XORTX's proprietary oxypurinol formulation compared to a control formulation. In addition, accompanying the improved bioavailability findings in Part 1 of the PK Clinical Trial was a clean safety and pharmacologic profile with no drug related adverse or serious adverse events related to oral administration of oxypurinol.

On July 19, 2022, the Company announced submission of a request for "scientific advice review" to the European Medicines Agency (the "EMA") and more specifically the Committee for Medical Products for Human Use (the "CHMP") regarding the XRx-008 program. This submission for CHMP/EMA review is intended to initiate discussions regarding the status of XORTX's XRx-008 program for ADPKD, plans for its global phase 3 registration trial, and includes scientific advice pertaining to marketing approval in the EU.

On August 4, 2022, the Company announced that the pre-Phase 3 meeting request made to the US Food and Drug Administration ("FDA") has resulted in the grant of a virtual meeting scheduled on September 16, 2022. In advance of this meeting, XORTX has submitted a "Pre-Phase-3 Briefing Package" to the FDA on July 28, 2022.

On August 22, 2022, the Company announced positive topline results from its Pharmacokinetics Bridging Study – XRX-OXY-101 – Part 2 – ("Part 2") showing a substantial increase in oral bioavailability of XORTX's proprietary oxypurinol formulation provided with food compared to the fasted state. In addition, accompanying the improved bioavailability findings in Part 2 was a clean safety and pharmacologic profile with no drug related adverse or serious adverse events related to oral administration of oxypurinol.

On September 19, 2022, the Company announced the completion of the Type B Pre-phase 3 meeting with the FDA held on September 16, 2022. In advance of this meeting, XORTX submitted a "Pre-Phase-3 Briefing Package" to the FDA on July 28, 2022 and received responses from, and responded to the FDA prior to the virtual meeting.

On October 26, 2022, the Company announced receipt of a further no objection letter (NOL) from Health Canada regarding the Company's ongoing XRX-OXY-101 clinical bridging pharmacokinetics study (the "Study"). The Study was originally designed as a three part study and a NOL was received by Health Canada in April (see April 12, 2022 press release). The Company as successfully completed parts 1 and 2 of the Study, has modified part 3 and has added an additional part 4. XRX-OXY-101 was originally designed with three objectives: 1) to determine which of XORTX's novel formulations results in the best circulating oxypurinol concentrations; 2) to determine the effect of food on the bioavailability of this formulation; and 3) to determine the safety and pharmacokinetics of multiple doses of this selected formulation. After completion of parts 1 and 2, XORTX redesigned part 3 to include an additional characterization of food effect and added a fourth objective - part 4 - to characterize the proportion of oxypurinol absorbed with three increasing doses of XRx-008. Knowledge gained during the conduct of this trial will provide guidance regarding the future oral dosing of oxypurinol formulations in support of the Company's planned phase 3 registration trial in Autosomal Dominant Polycystic Kidney Disease ("ADPKD"). Additionally, this Study will provide data to support future NDA (New Drug Application) marketing submissions to the FDA and the European Medicines Agency.

On November 3, 2022, the Company announced the presentation of a peer-reviewed abstract that was presented on November 4, 2022 at the American Society of Nephrology ("ASN") Annual Conference – Kidney week. The Abstract presents new discoveries in two species – mouse and rat models of polycystic kidney disease ("PKD") and reports original work showing the harmful consequences of chronically increased uric acid on both structure and function of kidneys. The Abstract "Raising Serum Uric Acid with a

Uricase Inhibitor Worsens PKD in Rat and Mouse models" was presented during the Session Title: Genetic Diseases of the Kidneys, by Dr. Charles Edelstein of the University of Colorado and Dr. Allen Davidoff, CEO of XORTX. This presentation reported for the first time, that XORTX's XRx008 formulation of Xanthine Oxidase inhibitor can substantially and significantly block the increase in kidney size associated with high circulating uric acid in a rodent model of polycystic kidney disease.

Private Placement

On October 7, 2022, the Company closed an underwritten public offering of: (i) 1,400,000 common share units ("Common Share Units"), with each Common Share Unit consisting of one common share, no par value, and one warrant ("Warrant") to purchase one common share at a public offering price of US$1.00 per Common Share Unit, and (ii) 3,600,000 pre-funded warrant units ("Pre-Funded Units" and together with the Common Share Units, the "Units"), with each Pre-Funded Unit consisting of one pre-funded warrant ("Pre-Funded Warrant") to purchase one common share and one Warrant to purchase one common share at a public offering price of US$0.9999 per Pre-Funded Unit, for aggregate gross proceeds of US$5 million, prior to deducting underwriting discounts and other offering expenses and excluding any exercise of the underwriters' option to purchase any additional securities as described herein (the "Offering"). The common shares and Warrants contained in the Common Share Units and the Pre-Funded Warrants and Warrants contained in the Pre-Funded Units were immediately separable upon issuance. The Warrants have an initial exercise price of US$1.22 per share, are immediately exercisable, and may be exercised for five years from the date of issuance. The Pre-Funded Warrants have an exercise price of US$0.0001 per share, are immediately exercisable, and will terminate once exercised in full.

Further to an investment in connection with the Offering, the Company entered into an agreement, approved by the TSXV, to reduce the exercise price of outstanding warrants to purchase up to 910,000 shares of common stock issued in the 2021 public offering (the "Prior Warrants") and held by investors in the Offering from US$4.77 per share to US$1.17 per share, effective upon the closing of the Offering. All other terms of the Prior Warrants remained the same.

Changes in officers, directors and advisory board members

On January 20, 2022, the Company announced the appointment of Dr. David MacDonald as Chief Technology Officer. Effective May 12, 2022, Dr. David MacDonald transitioned from the position of Chief Technology Officer to consultant focused on regulatory and clinical operations for the Company.

On June 6, 2022, the Company announced the appointment of Mr. Anthony Giovinazzo to the Board of Directors and as non-Executive Chair of the Board.

FUTURE PLANS AND OUTLOOK

XORTX intends to grow its business by developing three programs focused on kidney disease.

For the balance of 2022, the Company anticipates a number of advancements and changes in its business. In 2022, XORTX is focused on advancing XRx-008 into a clinical trial, the submission of an Orphan Drug Designation application, initiation of special protocol assessment discussions with the FDA and continuing formulation and new chemical entity candidate development for other kidney disease applications. To achieve these objectives, XORTX's action plan includes:

1. **Complete XRX-OXY-101 Bridging Study.** This study is a four-part, single-dose; fed or fasted; then, multi-dose crossover comparative bioavailability and pharmacokinetic study in healthy volunteers. It is designed to permit XORTX to characterize the safety and relative bioavailability of the XRx-008 formulation. Knowledge gained during the conduct of this trial will provide guidance regarding the oral dose of XRx-008 for our planned registration trial in ADPKD. Additionally, this study will provide data to support future NDA submissions to the FDA and the EMA. This study was initiated in April 2022 with Part 1 and Part 2 results announced by the Company on July 13, 2022 and August 22, 2022 respectively. The XRX-OXY-101 Bridging Pharmacokinetics Study – Part 3 and Part 4 will be conducted during Q4-2022 and are anticipated to complete by year end.

2. **Complete Orphan Drug Designation.** Current research being conducted will be used to file for orphan drug designation in 2022 or early 2023.

3. **Commence XRX-OXY-301 Registration trial in ADPKD.** XRX-OXY-301 is a multi-site, multi-national, placebo controlled, study in ADPKD patients with progressing stage 2 or 3 kidney disease. The objective of this study is to evaluate the safety and effectiveness of XRx-008 over a 24-month period and study the ability of xanthine oxidase inhibition to decrease the rate of decline of glomerular filtration rate. An estimated 350 patients will be enrolled. Ongoing preparations for this study will continue through 2022, subject to SPA negotiations with the FDA.

4. **Ongoing CMC Work.** In parallel to the XRX-OXY-101 and XRX-OXY-102 studies, XORTX will be focused on performing the necessary scale-up, process validation and stability as part of the CMC requirements for the filing of the IND, as well as future clinical and commercial supplies. All development will be performed according to current GMP methodology. This work will be ongoing throughout 2022 and 2023.

5. **Preparation of 505(b)(2) IND.** In parallel with initiation of XRX-OXY-101 a 505(b)2 based IND was submitted and granted in the second quarter of 2022 for the XRx-008 program.

6. **Activities Related to Potential Commercial Launch.** In preparation for a possible NDA filing in 2026 in the U.S. for the XRx-008 program, XORTX is planning to conduct additional commercialization studies, including nephrologist, patient, payer, pricing and/or reimbursement studies, as well as product brand name selection and filings, and plans for launch. This work will be ongoing from 2022 through 2026.

7. **Activities Related to European Registration.** XORTX intends to establish guidance from the European Union for path to approval in the European Union, including required clinical studies and reimbursement conditions. This work will be ongoing from 2022 to 2026.

To achieve the above goals, XORTX will continue to pursue non-dilutive and dilutive funding and expand discussions to partner with major pharma / biotech companies with a global reach. XORTX will also increase financial and healthcare conference participation to further strengthen and expand its investor base.

SUMMARY OF QUARTERLY RESULTS

The following table sets forth unaudited quarterly results prepared by management for the eight previous quarters to September 30, 2022:

(unaudited)	2022 Q3	2022 Q2	2022 Q1	2021 Q4
Amortization of intangible and capital assets	28,788	12,454	4,781	4,739

Foreign exchange loss (gain)	(662,828)	(348,314)	197,398	(346,716)
Consulting	145,606	(153,266)	291,982	368,662
Directors' fees	59,377	29,554	15,000	22,700
General and administrative	153,010	157,604	151,804	146,012
Interest	(46,280)	(15,017)	(3,354)	1,669
Investor relations	131,436	519,707	301,833	134,543
Listing fees	32,766	48,383	33,585	148,487
Professional fees	73,407	282,152	106,805	71,246
Research and development	1,922,287	1,861,216	2,440,720	430,948
Share based payments 1	25,147	424,958	86,196	143,496
Travel	110	14,569	-	239
Wages and benefits	173,008	187,370	208,700	137,678
Transaction costs on derivative warrant liability	-	-	-	1,537,948
(Gain) loss on derivative warrant liability	(473,360)	(1,440,006)	(412,188)	(11,895,882)
Total Comprehensive (loss) income	(1,562,474)	(1,581,364)	(3,423,262)	9,094,231
(Loss) earnings per share	(0.12)	(0.12)	(0.26)	0.74

(unaudited)	2021 Q3	2021 Q2	2021 Q1	2020 Q4
Amortization of intangible assets	4,526	4,373	4,244	5,140
Foreign exchange loss (gain)	12,242	7,336	387	7,006
Consulting	109,269	94,480	151,861	39,172
Directors' fees	39,500	-	-	-
General and administrative	6,263	13,012	10,812	1,933
Interest	1,382	665	1,882	815
Investor relations	118,947	60,251	204,874	109,973
Listing fees	36,858	36,903	14,553	15,510
Professional fees	(402,676)	491,552	112,821	75,000
Research and development	381,967	26,423	13,786	142,548
Share based payments 1	62,221	90,451	202,990	6,748
Travel	-	-	2,100	-
Wages and benefits	48,000	48,000	52,412	79,808
Transaction costs on derivative warrant liability	-	-	85,732	-
(Gain) loss on derivative warrant liability	7,936,114	(655,000)	1,315,000	-
Impairment of intangible assets	-	-	-	64,562
Recovery of provision for patent acquisition	-	-	-	(95,490)
Total Comprehensive (loss) income	(8,354,613)	(218,446)	(2,173,454)	(452,725)
(Loss) earnings per share	(0.89)	(0.02)	(0.26)	(0.07)

Notes:
(1) Share based payments relate to the vesting of options over the period.
(2) The loss during the three months ended September 30, 2022 relates mostly to the increase in research and development costs resulting from the commencement of various feasibility studies and clinical trial expenses as offset by gain on derivative warrant liability valuation and gain on foreign exchange.

Three months ended September 30, 2022

The Company incurred a comprehensive loss of $1,562,474 ($0.12 per share) for the three months ended September 30, 2022, compared to $8,354,613 ($0.89 per share) in the three months ended September 30, 2021.

Variances within the loss items are as follows:

Foreign Exchange Gain **-** $662,828 (2021 – loss of $12,242) – Foreign exchange gain was $662,828 for the three months ended September 30, 2022 as compared to a loss of $12,242 in the prior year quarter primarily due to an unrealized translation gain on the U.S. dollar denominated cash balance.

Consulting - $145,606 (2021 - $109,269) – Consulting expenses increased during the three months ended September 30, 2022, as more consultants were engaged during the interim period due to an increase in Company activity with respect to corporate development.

Directors' fees - $59,377 (2021 - $39,500) – Directors' fees expenses increased during the three months ended September 30, 2022 due to increase in number of directors and hence the related retainer fees.

General and administrative **-** $153,010 (2021 – $6,263) General and administrative costs increased due to an increase in the director and officer insurance premium of $144,060 as well as an increase in Company activity.

Investor relations - $131,436 (2021 - $118,947) – Investor relations expense increased during the three months ended September 30, 2022 as the Company entered into various engagements to provide information to investors.

Professional fees - $73,407 (2021 – recovery of $402,676). Professional fees, which consists mainly of accounting, audit and legal fees, increased during the three months ended September 30, 2022 compared with the 2021 comparable period, due to the legal fees incurred prior to July 1, 2021 related to the US IPO Offering and up listing to Nasdaq were reclassified from legal expenses to deferred share issue costs in the quarter ended September 30, 2021

Research and development - $1,922,287 (2021 - $381,967) – Research and development expenses increased in the three months ended September 30, 2022 compared to the same period last year as detailed in the following table:

The table below presents combined research and development costs for XRx-008, XRx-101, and XRx-225 as the Company's projects are presently run concurrently and in combination.

	Q3 2022	Q3 2021	Change $	Change %

Clinical trial expense [1]	671,197	-	671,197	-
Manufacturing and related process expenses [2]	464,317	277,324	186,993	67%
Intellectual property expenses [3]	20,547	3,203	17,344	541%
Translational science expenses [4]	391,325	8,765	382,559	4365%
External consultants expenses [5]	374,901	72,589	302,312	416%
Other expenses	-	20,086	(20,086)	(100%)
Total Research and development	1,922,287	$ 381,967	$ 1,540,319	403%

Notes:

1. Clinical trial expenses include those costs associated with our clinical trial program which primarily included expenses related to the XRx-008 and XRx-101 projects. Included in clinical trial expenses are regulatory and consulting activities, contract research organization expenses, data management expenses, and other costs associated with our clinical trial program. In Q3 2022, clinical trial expense primarily related to the bridging PK study increased during the current year quarter as a new expense.

2. Manufacturing and related process expenses includes third party direct manufacturing costs, quality control testing and packaging costs. In Q3 2022, manufacturing costs primarily related to the Company's oxypurinol manufacturing, feasibility study and chemical compound studies. The increase in manufacturing and related process expenses in Q3 2022 as compared to Q3 2021 relates to the ongoing bridging study and preparation of drug substance and drug product for the registration trial in ADKPD, while in Q3 2021, manufacturing costs primarily related to oxypurinol drug substance, stability and formulation development.

3. Intellectual property expenses include legal and filing fees associated with our patent portfolio. No major change in intellectual property expenses in Q3 2022 as compared to Q3 2021.

4. Translational science expenses include various research studies conducted to expand our intellectual knowledge base related to oxypurinol and our proprietary formulations of oxypurinol, pharmacokinetic testing, non-clinical bioavailability studies, pharmacology and toxicology testing and identify potential licensing opportunities. The translational science expense in Q3 2022 related to new sponsored research at the University of Denver, Colorado whereas no comparable activity was undertaken in Q3 2021.

5. External consultants' expenses include third party consultants engaged in the activities of research and development, including chemistry, manufacturing, drug product development, regulatory, non-clinical and clinical study execution. The increase in external consultants' expenses in Q3 2022 as compared to Q3 2021 was attributed to increased activity focused on the ongoing Company's pharmacokinetics bridging study and preparations for single registration trial associated with the XRx-008 program in individuals with ADKPD during 2023.

Wages and benefits - $173,008 (2021 - $48,000) – The wages and benefits expense increased in the three months ended September 30, 2022, as the Company's CFO was added to the payroll.

Fair value adjustment on derivative warrant liability – gain of $473,360 (2021 – loss of $7,936,114). The gain recognized during the three months ended September 30, 2022 relates to the warrants included in the units issued under the IPO while the loss in 2021 relates to the warrants issued under the Private Placement. The warrants issued under the Private Placement were classified as a derivative financial liability as they contained a ratchet provision that provided for an adjustment in the exercise price of the warrants if shares or securities convertible to shares were sold at a price lower than the exercise price. The IPO warrants have an exercise price in US dollars and have a derivative financial liability as the exercise price is in a different currency than the functional currency of the Company. The warrants are initially recognized at fair value and subsequently measured at fair value with changes recognized through profit or loss.

Nine months ended September 30, 2022

The Company incurred a comprehensive loss of $6,567,100 ($0.51 per share) for the nine months ended September 30, 2022, compared to a loss of $10,746,513 ($1.19 per share) in the nine months ended September 30, 2021.

Variances within the loss items are as follows:

Foreign Exchange Gain - $813,744 (2021 – loss of $19,965) – Foreign exchange gain was $813,744 for the nine months ended September 30, 2022 as compared to a loss of $19,965 in the nine months ended September 30, 2021 primarily due to an unrealized translation loss on the U.S. dollar denominated cash balance.

Directors' fees - $103,931 (2021 - $39,500) – Directors' fees expenses increased during the nine months ended September 30, 2022, as the Company commenced paying directors' fees to its independent directors on July 1, 2021.

General and administrative - $462,418 (2021 – $30,087) General and administrative costs increased significantly mostly due to an increase in the director and officer insurance premium as well as an increase in Company activity.

Investor relations - $952,976 (2021 - $384,072) – Investor relations expense increased during the nine months ended September 30, 2022 due to increased costs related to the Company's listings on the TSXV and Nasdaq stock exchanges on October 15, 2021 and hence no comparable Nasdaq cost in the nine months ended September 30, 2021.

Professional fees - $462,364 (2021 - $201,697). Professional fees, which consists mainly of accounting, audit and legal fees, increased during the nine months ended September 30, 2022 compared with the 2021 comparable period, due to the legal fees incurred prior to July 1, 2021 related to the US IPO Offering and up listing to Nasdaq were reclassified from legal expenses to deferred share issue costs in the quarter ended September 30, 2021 and there was no similar reclassification in the current nine months ended September 31, 2022.

Research and development - $6,224,223 (2021 - $422,176) – Research and development expenses increased in the nine months ended September 30, 2022, compared to the same period last year as detailed in the table below.

The table below presents combined research and development costs for XRx-008, XRx-101, and XRx-225, the Company's projects are being developed in parallel and combined.

	Q3 2022	Q3 2021	Change $	Change %
Clinical trial expense [1]	2,473,169	-	2,473,169	-
Manufacturing and related process expenses [2]	1,724,338	277,323	1,447,015	502%
Intellectual property expenses [3]	27,326	18,352	8,974	49%
Translational science expenses [4]	888,241	13,973	874,268	5687%
External consultants expenses [5]	1,111,149	92,442	1,018,707	1102%
Other expenses	-	20,086	(20,086)	(100%)
Total Research and development	$ 6,224,223	$ 422,176	$ 5,802,047	1374%

Notes:

1. Clinical trial expenses include those costs associated with our clinical trial program which primarily included expenses related to the XRx-008 and XRx-101 projects. Included in clinical trial expenses are regulatory and consulting activities, contract research organization expenses, data management expenses, and other costs associated with our clinical trial program. YTD Q3 2022, clinical trial expense primarily related to the bridging PK study contributed to the increase in the current year YTD 2022.

2. Manufacturing and related process expenses include third party direct manufacturing costs, quality control testing and packaging costs. In 2022, the Company's manufacturing costs primarily related to oxypurinol manufacturing, feasibility study and chemical compound studies. The increase in manufacturing and related process expenses in 2022 as compared to 2021 is entirely attributable to increased activity geared towards the start of bridging study and registration trial in ADKPD during 2023.

3. Intellectual property expenses include legal and filing fees associated with our patent portfolio. The increase in intellectual property expenses in YTD 2022 as compared to YTD 2021 relates to additional patent filings as the Company expands its patent portfolio and legal filing fees with EMA.

4. Translational science expenses include various research studies conducted to expand our intellectual knowledge base related to oxypurinol, our proprietary formulations of oxypurinol, development of new chemical entities (NCE), pharmacokinetic testing, non-clinical bioavailability studies, pharmacology and toxicology testing and identification of potential licensing opportunities. The translational science expense for the nine-month period in 2022 related to sponsored research work at the University of Denver, Colorado and animal studies. Very little activity was undertaken in 2021. We expect translational science expense in 2022 will increase as compared to 2021 as the Company expands its candidate formulation and NCE testing.

5. External consultants' expense includes third party consultants engaged in the activities of research and development, including chemistry, manufacturing, drug product development, regulatory, non-clinical and clinical study execution. The increase in external consultants' expenses for the nine-month period in 2022 as compared to the same period in 2021 was attributed to increased activity focused on the initiation of the Company's bridging study and thereafter a single registration trial associated with the XRx-008 program in individuals with ADKPD during 2023. We expect external consultants' expense in 2022 to increase as compared to 2021 as the Company conducts a bridging pharmacokinetic study associated with the XRx-008 drug product and thereafter initiation and conduct of a registration trial in ADKPD.

Wages and benefits - $569,078 (2021 - $148,412) – The wages and benefits expense increased in the nine months ended September 30, 2022, as the Company's CFO and CTO were added to the payroll.

Fair value adjustment on derivative warrant liability – gain of $2,325,554 (2021 – loss of $8,596,114). The gain recognized during the nine months ended September 30, 2022 relates to the warrants included in the units issued under the IPO on October 15, 2021 and the loss recognized during the nine months ended September 30, 2021 relates to the warrants included in the units issued under the Private Placement on February 9, 2021. The Private Placement warrants were classified as a derivative financial liability as they contained a ratchet provision that provided for an adjustment in the exercise price of the warrants if shares or securities convertible to shares were sold at a price lower than the exercise price. The IPO warrants have an exercise price in US dollars and have a derivative financial liability as the exercise price is in a different currency than the functional currency of the entity. The warrants are initially recognized at fair value and subsequently measured at fair value with changes recognized through profit or loss.

Comparison of cash flows for the nine months ended September 30, 2022 and 2021

The Company realized a net cash outflow of $6,691,197 for the nine months ended September 30, 2022, compared to a cash inflow of $4,826,336 for the nine months ended September 30, 2021. The variances in the cash flow for the nine months ended September 30, 2022, compared to September 30, 2021 were as follows:

Operating activities – Cash used in operating activities for the nine months ended September 30, 2022, was $6,811,510 (2021 - $2,108,912). The cash used in operating activities was primarily due to the net loss during the period offset by the non-cash items.

Investing activities – Cash used in investing activities for the nine months ended September 30, 2022, was $38,336 (2021 - $22,783). The cash used related to the acquisition of intangible and capital assets during the period.

Financing activities – Cash used in financing activities in the nine months ended September 30, 2022, was $643,567 (2021 – cash provided of $6,958,031). The cash used in financing activities was primarily due to share issue costs related to the private placement closed subsequent to quarter end. In the prior year period, the cash provided was mostly related to the private placement that took place in February 2021 raising gross proceeds of $6,121,572 through the issuance of 2,085,687 units at a subscription price of $2.935 per unit.

LIQUIDITY AND CAPITAL RESOURCES

As at September 30, 2022, the Company had a cash balance of $11,007,085 and working capital of $10,409,510 as compared to a cash balance of $18,851,244 and working capital of $19,472,340 as at December 31, 2021. During the year ended December 31, 2021, the Company closed a public offering that occurred when the shares of the Company were listed on Nasdaq. The offering consisted of 2,906,000 units, with each unit consisting of one common share, no par value, and one warrant to purchase one common share at a public offering price of US$4.13 per Unit, for gross proceeds of $14,851,850 (US$12,001,780) as well as the private placement that took place in February

2021 raising gross proceeds of $6,121,572 through the issuance of 2,085,687 units at a subscription price of $2.935 per unit. The Company's primary source of funding is by way of raising capital through the issuance of equity to third party investors.

Although there is no certainty, management is of the opinion that additional funding for its projects and operations can be raised as needed. The Company is subject to a number of risks associated with the successful development of new products and their marketing and the conduct of its clinical studies and their results. The Company will have to finance its research and development activities and its clinical studies. To achieve the objectives in its business plan, the Company plans to raise the necessary capital and to generate revenues. It is anticipated that the products developed by the Company will require approval from the FDA and equivalent organizations in other countries before their sale can be authorized. If the Company is unsuccessful in obtaining adequate financing in the future, corporate initiatives may be affected or postponed.

USE OF FINANCING PROCEEDS

On October 15, 2021, the Company closed an underwritten public offering in the U.S. of 2,906,000 units, with each unit consisting of one common share and one warrant to purchase one common share at US$4.13 per unit, for aggregate gross proceeds of approximately US$12 million, prior to deducting underwriting discounts and other offering expenses (the "**US IPO Offering**"). The USD IPO Offering was undertaken by A.G.P. / Alliance Global Partners ("**A.G.P.**") who acted as sole book-running manager. The warrants are exercisable at US$4.77 per share and have a term of five years. In addition, the Company granted A.G.P. a 45-day option to purchase up to an additional 435,900 common shares and warrants to purchase up to an additional 435,900 common shares at US$4.13 less underwriting discounts. On closing, A.G.P. exercised its option to purchase additional warrants to purchase up to an additional 435,900 common shares. On November 8, 2021, A.G.P. partially exercised its 45-day option to purchase 355,000 common shares at US$4.13 per share, resulting in additional gross proceeds to the Company of approximately US$1.47 million which increased the US IPO Offering to 3,261,000 common shares and 3,341,900 warrants.

The Company has not fully used the net proceeds of the US Offering. The proceeds that the Company has used (approximately CAD$6.7 million as of September 30, 2022) have been used for funding operations and general corporate purposes, which has included further research and development and manufacture of active pharmaceutical ingredients and drug product to support clinical trials. The Company intends to continue to use the remaining net proceeds of the offering, together with existing cash, for funding operations and general corporate purposes, which may include the further research and development, clinical trials, manufacture of active pharmaceutical ingredients and drug product to support clinical trials and intends to use the proceeds in approximately the following proportions: XRx-008: 90%; XRx-101: 5%; XRx-225: 5%.

COMMITMENTS

The Company had long-term arrangements with commitments as at September 30, 2022 and December 31, 2021 as follows:

Employment Agreements

	September 30, 2022	December 31 2021
	$	$
Management services – officers	507,210	476,000

The President, CEO and a director of the Company has a long-term employment agreement with the Company. The agreement has a termination clause whereby he is entitled to the equivalent of 12 times his then current monthly salary which, as of September 30, 2022 and December 31, 2021, equated to annual salary of US$300,000.

The CFO of the Company has a long-term employment agreement with the Company. The agreement has a termination clause whereby he is entitled to the equivalent of 12 times his then current monthly salary which as of September 30, 2022 and December 31, 2021, equated to annual salary of $192,000.

Payments

In the normal course of business, the Company has committed to payments totaling $8,680,274 (2021 - $1,613,142) for activities related to its clinical trial, manufacturing, collaboration programs and other regular business activities which are expected to occur over the next two years.

OFF BALANCE SHEET ARRANGEMENTS

The Company has no off-balance sheet arrangements.

TRANSACTIONS WITH RELATED PARTIES

All related party transactions were measured at the amount of consideration established and agreed to by the related parties. All amounts due from/payable to related parties are unsecured, non-interest bearing and have no fixed terms of repayment.

During the three and nine months ended September 30, 2022 and 2021, the Company incurred the following transactions with related parties:

a) Wages and benefits were accrued to Allen Davidoff, the Chief Executive Officer ("CEO"), Amar Keshri, the Chief Financial Officer ("CFO"), and David MacDonald, former Chief Technology Officer ("CTO") of the Company in the amount of $146,952 and $518,788 (2021 - $48,000 and $148,412).

b) Professional fees were accrued to 1282803 Ontario Inc., a company owned by Jim Fairbairn, former CFO of the Company in the amount of $nil and $nil (2021 - $nil and $34,500).

c) Research and development fees were accrued to Haworth Biopharmaceutical, a company owned by Stephen Haworth, Chief Medical Officer ("**CMO**") of the Company in the amount of $74,607 and $217,569 (2021 - $nil and $nil).

d) Consulting fees were accrued to Bruce Rowlands and Allan Williams, former directors of the Company in the amount of $nil and $nil (2021 - $9,000 and $47,000).

e) Directors' fees were accrued to the directors of the Company in the amount of $59,377 and $103,931 (2021 - $39,500 and $39,500). The amount includes salary payment of $43,077 and $49,231 for the three and nine months ended September 30, 2022 (2021: - $nil and $nil) to Anthony Giovinazzo, Charmain of the Company.

f) As at September 30, 2022, $16,300 (December 31, 2021 - $81,104) was payable to directors of the Company, $nil (December 31, 2021 - $25,000) was accrued to the CEO of the Company, for CEO services, and $49,862 (December 31, 2021 - $47,543) was payable and accrued to the CMO of the Company, for consulting services. The balances are unsecured, non-interest bearing, and have no fixed terms of repayment.

g) Management compensation transactions for the three and nine months ended September 30, 2022 and 2021 are summarized as follows:

	Short-term employee benefits	Directors' fees	Share-based payments	Total
	$	$	$	$
Three months ended September 30, 2021				
Directors and officers	48,000	39,500	31,027	118,527
Three months ended September 30, 2022				
Directors and officers	**225,140**	**59,377**	**47,418**	**331,935**

	Short-term employee benefits	Directors' fees	Share-based payments	Total
	$	$	$	$
Nine months ended September 30, 2021				
Directors and officers	148,412	39,500	214,621	402,533
Nine months ended September 30, 2022				
Directors and officers	**741,019**	**103,931**	**475,969**	**1,320,919**

FINANCIAL AND CAPITAL RISK MANAGEMENT

The Company's financial instruments consist of cash and cash equivalents, accounts payable and accrued liabilities, lease obligation and derivative warrant liability. Cash and cash equivalents are classified as financial assets at FVTPL, accounts payable and accrued liabilities and lease obligation are classified as financial liabilities at amortized cost and warrant liability is classified as a financial liability at FVTPL.

The fair values of these financial instruments, other than derivative warrant liability, approximate their carrying values at September 30, 2022, due to their short-term nature.

The Company thoroughly examines the various financial instruments and risks to which it is exposed and assesses the impact and likelihood of those risks. These risks include foreign currency risk, interest rate risk, market risk, credit risk, and liquidity risk. Where material, these risks are reviewed and monitored by the Board of Directors.

There have been no changes in any risk management policies since December 31, 2021.

Capital Management

The Company defines capital that it manages as shareholders' equity. The Company manages its capital structure in order to have funds available to support its research and development and sustain the future development of the business. When managing capital, the Company's objective is to ensure the entity continues as a going concern as well as to maintain optimal returns to shareholders and benefits for other stakeholders. Management adjusts the capital structure as necessary in order to support its activities.

Since inception, the Company's objective in managing capital is to ensure sufficient liquidity to finance its research and development activities, general and administrative expenses, expenses associated with intellectual property protection and its overall capital expenditures. There were no changes during the nine months ended September 30, 2022. The Company is not exposed to external requirements by regulatory agencies regarding its capital.

OUTSTANDING SHARE DATA

As at November 10, 2022, the Company had the following shares outstanding:

- Class	Common Shares
- Authorized	Unlimited, without par value
- Issued and outstanding	14,389,687

Options Outstanding:

The following table summarizes information on the 1,097,095 stock options outstanding as at November 10, 2022:

Exercise Price	Number Outstanding	Expiry Date
$5.87	127,760	March 19, 2023
$5.87	21,294	November 5, 2023
$1.64	170,354	June 23, 2025
$2.82	12,776	August 27, 2025
$3.29	59,624	January 11, 2026
$1.88	21,294	May 12, 2026
$1.76	21,294	June 16, 2026
$2.41	63,882	July 14, 2026
$2.54	86,495	December 21, 2026

$2.54	117,500	January 12, 2027
$1.60	394,822	June 6, 2027

Warrants Outstanding:

The following table summarizes information on the 14,179,796 outstanding warrants as at November 10, 2022:

Exercise Price	Number Outstanding	Expiry date
$4.70	1,842,596	February 9, 2026
US$4.77	2,577,200	October 15, 2026
US$1.17	910,000	October 15, 2026
US$1.22	5,250,000	October 7, 2027
US$0.0001	3,600,000	Pre-funded warrants will terminate once exercised in full

RISKS RELATED TO THE BUSINESS

An investment in the Company is speculative and involves a high degree of risk. Accordingly, prospective investors should carefully consider the specific risk factors set out below, in addition to the other information contained in this MD&A, before making any decision to invest in the Company. The Directors consider the following risks and other factors to be the most significant for potential investors in the Company, but the risks listed do not necessarily comprise all those associated with an investment in the Company and are not set out in any particular order of priority. Additional risks and uncertainties not currently known to the Directors may also have an adverse effect on the Company's business. If any of the following risks actually occur, the Company's business, financial condition, capital resources, results or future operations could be materially adversely affected. In such a case, the price of the common shares could decline, and investors may lose all or part of their investment.

Speculative Nature of Investment Risk

An investment in the common shares of the Company carries a high degree of risk and should be considered as a speculative investment by purchasers. The Company has limited cash reserves, a limited operating history, has not paid dividends, and is unlikely to pay dividends in the immediate or near future. The Company is in the development stage. Operations are not yet sufficiently established such that the Company can mitigate the risks associated with planned activities.

Limited Operating History

The Company has no present prospect of generating revenue from the sale of products. The Company is therefore subject to many of the risks common to early-stage enterprises, including under-capitalization, cash shortages, limitations with respect to personnel, financial, and other resources and lack of revenues. There is no assurance that the Company will be successful in achieving a return on shareholders' investment and the likelihood of success must be considered in light of the early stage of operations.

Negative Cash Flow for the Foreseeable Future

The Company has a no history of earnings or cash flow from operations. The Company does not expect to generate material revenue or achieve self-sustaining operations for several years, if at all. To the extent that the Company has negative cash flow in future periods, the Company may need to allocate a portion of its cash reserves to fund such negative cash flow.

Reliance on Management

The success of the Company is dependent upon the ability, expertise, judgment, discretion and good faith of its management. While employment agreements are customarily used as a primary method of retaining the services of key employees, these agreements cannot assure the continued services of such employees. Any loss of the services of such individuals could have a material adverse effect on the Company's business, operating results or financial condition.

Clinical trials for potential drug candidates will be expensive and time consuming, and their outcomes uncertain.

Before the Company can obtain regulatory approval for the commercial sale of any drug candidate or attract major pharmaceutical companies with which to collaborate, it will be required to complete extensive clinical trials to demonstrate safety and efficacy. Clinical trials are expensive and are difficult to design and implement. The clinical trial process is also time-consuming and can often be subject to unexpected delays. The timing and completion of clinical trials may be subject to significant delays relating to various causes, including but not limited to: inability to manufacture or obtain sufficient quantities of materials for use in clinical trials; delays arising from collaborative partnerships; delays in obtaining regulatory approvals to commence a study, or government intervention to suspend or terminate a study; delays, suspensions or termination of clinical trials by the applicable institutional review board or independent ethics board responsible for overseeing the study to protect research subjects; delays in identifying and reaching agreement on acceptable terms with prospective clinical trial sites; slow rates of patient recruitment and enrollment; uncertain dosing issues; inability or unwillingness of medical investigators to follow clinical protocols; variability in the number and types of subjects available for each study and resulting difficulties in identifying and enrolling subjects who meet trial eligibility criteria; scheduling conflicts; difficulty in maintaining contact with subjects after treatment, resulting in incomplete data; unforeseen safety issues or side effects; lack of efficacy during clinical trials; reliance on clinical research organizations to efficiently and properly conduct clinical trials in accord with contracted arrangements and regulations, or other regulatory delays.

Risks Related to Food and Drug Administration (FDA) Approval

In the United States, the FDA regulates the approval of therapeutics and the FDA notification and approval process requires substantial time, effort and financial resources, and the Company cannot be certain that any approvals for its products will be granted on a timely basis, if at all. Foreign jurisdictions have similar government regulatory bodies and requirements that the Company must meet prior to selling products in those jurisdictions.

The Company must be considered in light of the risks, expenses, shifts, changes and difficulties frequently encountered with companies whose businesses are regulated by various federal, state and local governments. The health care, wellness, workers' compensation and similar companies are subject to a variety of regulatory requirements and the regulatory environment is ever changing particularly with recent legislation, the full impact of which is not yet understood as regulations have not been issued. Failure to follow applicable regulatory requirements will have a materially negative impact on the business of the Company. Furthermore, future changes in legislation cannot be predicted and

could irreparably harm the business of the Company.

Intellectual Property Rights

The Company could be adversely affected if it does not adequately protect its intellectual property rights. The Company regards its marks, rights, and trade secrets and other intellectual property rights as critical to its success. To protect its investments and the Company's rights in these various intellectual properties, it may rely on a combination of patents, trademark and copyright law, trade secret protection and confidentiality agreements and other contractual arrangements with its employees, clients, strategic partners, acquisition targets and others to protect proprietary rights. There can be no assurance that the steps taken by the Company to protect proprietary rights will be adequate or that third parties will not infringe or misappropriate the Company's copyrights, trademarks and similar proprietary rights, or that the Company will be able to detect unauthorized use and take appropriate steps to enforce rights. In addition, although the Company believes that its proprietary rights do not infringe on the intellectual property rights of others, there can be no assurance that other parties will not assert infringement claims against the Company. Such claims, even if not meritorious, could result in the expenditure of significant financial and managerial resources.

The Company will rely on trade secrets to protect technology where it does not believe patent protection is appropriate or obtainable. Trade secrets are difficult to protect. While commercially reasonable efforts to protect trade secrets will be used, strategic partners, employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose information to competitors.

If the Company is not able to defend patents or trade secrets, then it will not be able to exclude competitors from developing or marketing competing products, and the Company may not generate enough revenue from product sales to justify the cost of development of products and to achieve or maintain profitability.

The results of preclinical studies or initial clinical trials are not necessarily predictive of future favorable results.

Preclinical tests and initial clinical trials are primarily designed to test safety and to understand the side effects of drug candidates and to explore efficacy at various doses and schedules. Success in preclinical or animal studies and early clinical trials does not ensure that later large-scale efficacy trials will be successful nor does it predict final results. Favorable results in early trials may not be repeated in later ones.

Difficulty to Forecast

The Company must rely largely on its own market research to forecast sales as detailed forecasts are not generally obtainable from other sources at this early stage of the industry. A failure in the demand for its products to materialize as a result of competition, technological change or other factors could have a material adverse effect on the business, results of operations and financial condition of the Company.

Litigation

The Company may become party to litigation from time to time in the ordinary course of business which could adversely affect its business. Should any litigation in which the Company becomes involved be determined against the Company such a decision could adversely affect the Company's ability to continue operating and the market price for the Company's common shares. Even if the Company is involved in litigation and wins, litigation can redirect significant Company resources.

Commercial success of the Company will depend in part on not infringing upon the patents and proprietary rights of other parties and enforcing its own patents and proprietary rights against others. The research and development programs will be in highly competitive fields in which numerous third parties have issued patents and pending patent applications with claims closely related to the subject matter of the Company's programs. The Company is not currently aware of any litigation or other proceedings or claims by third parties that its technologies or methods infringe on their intellectual property.

While it is the practice of the Company to undertake pre-filing searches and analyses of developing technologies, it cannot guarantee that it has identified every patent or patent application that may be relevant to the research, development, or commercialization of its products. Moreover, it cannot assure that third parties will not assert valid, erroneous, or frivolous patent infringement claims.

Uninsurable Risks

The business of the Company may not be insurable or the insurance may not be purchased due to high cost. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the Company.

The market price of the Company's common shares may be subject to wide price fluctuations.

The market price of the Company's common shares may be subject to wide fluctuations in response to many factors, including variations in the operating results of the Company and its subsidiaries, divergence in financial results from analysts' expectations, changes in earnings estimates by stock market analysts, changes in the business prospects for the Company and its subsidiaries, general economic conditions, legislative changes, and other events and factors outside of the Company's control. In addition, stock markets have from time-to-time experienced extreme price and volume fluctuations, which, as well as general economic and political conditions, could adversely affect the market price for the Company's common shares.

Dividends

The Company has no earnings or dividend record and does not anticipate paying any dividends on the common shares in the foreseeable future.

Dilution

The financial risk of the Company's future activities will be borne to a significant degree by purchasers of the common shares. If the Company issues common shares from its treasury for financing purposes, control of the Company may change and purchasers may suffer additional dilution.

Rapid Technological Change

The business of the Company is subject to rapid technological changes. Failure to keep up with such changes may adversely affect the business of the Company. The Company

is subject to the risks of companies operating in the medical and healthcare business. The market in which the Company competes is characterized by rapidly changing technology, evolving industry standards, frequent new service and product announcements, introductions and enhancements and changing customer demands. As a result, an investment in the stocks of the Company is highly speculative and is only suitable for investors who recognize the high risks involved and can afford a total loss of investment.

Risks Associated with Acquisitions

If appropriate opportunities present themselves, the Company may acquire businesses, technologies, services or products that the Company believes are strategic. The Company currently has no understandings, commitments or agreements with respect to any other material acquisition and no other material acquisition is currently being pursued. There can be no assurance that the Company will be able to identify, negotiate or finance future acquisitions successfully, or to integrate such acquisitions with its current business. The process of integrating an acquired business, technology, service or product into the Company may result in unforeseen operating difficulties and expenditures and may absorb significant management attention that would otherwise be available for ongoing development of the Company's business. Future acquisitions could result in potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities and/or amortization expenses related to goodwill and other intangible assets, which could materially adversely affect the Company's business, results of operations and financial condition. Any such future acquisitions of other businesses, technologies, services or products might require the Company to obtain additional equity or debt financing, which might not be available on terms favorable to the Company, or at all, and such financing, if available, might be dilutive.

Economic Environment

The Company's operations could be affected by the economic context should the unemployment level, interest rates or inflation reach levels that influence consumer trends and consequently, impact the Company's future sales and profitability.

Global Economy Risk

The ongoing economic problems and downturn of global capital markets has generally made the raising of capital by equity or debt financing more difficult. Access to financing has been negatively impacted by the ongoing global economic risks. As such, the Company is subject to liquidity risks in meeting its development and future operating cost requirements in instances where cash positions are unable to be maintained or appropriate financing is unavailable. These factors may impact the Company's ability to raise equity or obtain loans and other credit facilities in the future and on terms favorable to the Company. If uncertain market conditions persist, the Company's ability to raise capital could be jeopardized, which could have an adverse impact on the Company's operations and the trading price of the Company's Shares on the stock exchange.

International Conflict

International conflict and other geopolitical tensions and events, including war, military action, terrorism, trade disputes and international responses thereto have historically led to, and may in the future lead to, uncertainty or volatility in financial markets and supply chains. Russia's recent invasion of Ukraine has led to sanctions being levied against Russia by the international community and may result in additional sanctions or other international action, any of which may have a destabilizing effect on supply chain disruptions which may adversely affect the Company's business, financial condition and results of operations. The extent and duration of the current Russia-Ukraine conflict and related international action cannot be accurately predicted at this time and the effects of such conflict may magnify the impact of the other risks identified in this document, including those relating to global financial conditions. The situation is rapidly changing and unforeseeable impacts, including on our shareholders and counterparties on which we rely and transact, may materialize and may have an adverse effect on the Company's business, results of operation and financial condition.

Going-Concern Risk

The Company's future operations are dependent upon the identification and successful completion of equity or debt financing and the achievement of profitable operations at an indeterminate time in the future. There can be no assurances that the Company will be successful in completing an equity or debt financing or in achieving profitability.

Financial Risk Exposures

The Company may have financial risk exposure to varying degrees relating to the currency of each of the countries where it operates and has financial risk exposure towards digital currencies. The level of the financial risk exposure related to a currency and exchange rate fluctuations will depend on the Company's ability to hedge such risk or use another protection mechanism.

Attracting and keeping senior management and key scientific personnel

The success of the Company depends on the continued ability to attract, retain, and motivate highly qualified management, clinical, and scientific personnel and to develop and maintain important relationships with leading academic institutions, companies, and thought leaders. Allen Davidoff, the Company's Chief Executive Officer and Director, exercises significant control over the day-to-day affairs of the Company. The Company depends on Dr. Davidoff to engage with third parties and contractors to operate the business.

SEGMENT REPORTING

We view our operations and manage our business in one segment, which is the development and commercialization of bio-pharmaceuticals, initially focused on the treatment of progressive kidney disease.

TREND INFORMATION

Other than as disclosed elsewhere we are not aware of any trends, uncertainties, demands, commitments, or events that are reasonably likely to have a material effect on our net revenues, income from continuing operations, profitability, liquidity or capital resources, or that would cause reported financial information not necessarily to be indicative of future operating results or financial condition.

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS

The Company's management is responsible for presentation and preparation of the financial statements and the MD&A. The MD&A have been prepared in accordance with the requirements of securities regulators, including National Instrument 51-102 of the Canadian Securities Administrators.

The financial statements and information in the MD&A necessarily include amounts based on informed judgments and estimates of the expected effects of current events and transactions with appropriate consideration to materiality. In addition, in preparing the financial information, we must interpret the requirements described above, make determinations as to the relevancy of information included, and make estimates and assumptions that affect reported information. The MD&A also includes information regarding the impact of current transactions and events, sources of liquidity and capital resources, operating trends, risks and uncertainties. Actual results in the future may differ materially from our present assessment of this information because future events and circumstances may not occur as anticipated.

DISCLOSURE CONTROLS AND PROCEDURES

Disclosure controls and procedures are designed to provide reasonable assurance that material information required to be disclosed in the prescribed filings and reports filed with the Canadian securities regulatory authorities is recorded, processed, summarized and reported on a timely basis. Controls are also designed to provide reasonable assurance that information required to be disclosed is assimilated and communicated to senior management in a timely manner so that appropriate decisions can be made regarding public disclosure. The Company's Chief Executive Officer and Chief Financial Officer have evaluated the effectiveness of the Company's disclosure controls and procedures and concluded that they provide reasonable assurance that material information relating to the Company was made known to them and reported as required.

Exhibit 99.3

FORM 52-109F2
CERTIFICATION OF INTERIM FILINGS
FULL CERTIFICATE

I, Allen Davidoff, Chief Executive Officer of XORTX Therapeutics Inc., certify the following:

1. ***Review:*** I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of XORTX Therapeutics Inc. (the "issuer") for the interim period ended September 30, 2022.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.

4. ***Responsibility:*** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in *National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. ***Design:*** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the end of the period covered by the interim filings:

   (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that:

      (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and

      (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

   (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 ***Control framework:*** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is COSO Financial Controls Framework.

5.2 ***ICFR - material weakness relating to design:*** N/A

5.3 ***Limitation on scope of design:*** N/A

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6. ***Reporting changes in ICFR:*** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2022 and ended on September 30, 2022 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: November 10, 2022

/s/ Allen Davidoff
Allen Davidoff
Chief Executive Officer

Exhibit 99.4

FORM 52-109F2
CERTIFICATION OF INTERIM FILINGS
FULL CERTIFICATE

I, Amar Keshri, Chief Financial Officer of XORTX Therapeutics Inc., certify the following:

1. ***Review:*** I have reviewed the interim financial report and interim MD&A (together, the "interim filings") of XORTX Therapeutics Inc. (the "issuer") for the interim period ended September 30, 2022.

2. ***No misrepresentations:*** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.

3. ***Fair presentation:*** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.

4. ***Responsibility:*** The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in *National Instrument 52-109 Certification of Disclosure in Issuers' Annual and Interim Filings*, for the issuer.

5. ***Design:*** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer's other certifying officer(s) and I have, as at the end of the period covered by the interim filings:

   (a) designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that:

      (i) material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and

      (ii) information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and

   (b) designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer's GAAP.

5.1 ***Control framework:*** The control framework the issuer's other certifying officer(s) and I used to design the issuer's ICFR is COSO Financial Controls Framework.

5.2 ***ICFR - material weakness relating to design:*** N/A

5.3 ***Limitation on scope of design:*** N/A

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6. ***Reporting changes in ICFR:*** The issuer has disclosed in its interim MD&A any change in the issuer's ICFR that occurred during the period beginning on January 1, 2022 and ended on September 30, 2022 that has materially affected, or is reasonably likely to materially affect, the issuer's ICFR.

Date: November 10, 2022

/s/ Amar Keshri
Amar Keshri
Chief Financial Officer