

**Confidential Treatment Requested by XORTX Therapeutics Inc.
Pursuant to 17 CFR 200.83**

As confidentially submitted to the Securities and Exchange Commission on July 30, 2025. This draft registration statement has not been publicly filed with the Securities and Exchange Commission and all information herein remains strictly confidential.

Registration No. 333-

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM F-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

XORTX THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

British Columbia
(State or other jurisdiction of
incorporation or organization)

2834
(Primary Standard Industrial
Classification Code Number)

N/A
(I.R.S. Employer
Identification No.)

**3710 – 33rd Street NW
Calgary, Alberta, Canada T2L 2M1
(403) 455-7727**

(Address, including zip code and telephone number, including area code, of registrant's principal executive offices)

**C T Corporation System
28 Liberty Street
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(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act.

Emerging growth company ☒

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.† ☐

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

† The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

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SUBJECT TO COMPLETION, DATED , 2025

PRELIMINARY PROSPECTUS



Up to Common Shares

Up to Pre-Funded Warrants to purchase up to an aggregate of Common Shares

Up to Common Warrants to purchase up to an aggregate of Common Shares

Up to Common Shares issuable upon the exercise of the Common Warrants and the Pre-Funded Warrants

XORTX Therapeutics Inc.

We are offering on a reasonable best efforts basis up to \$ of common shares, no par value (the “**Shares**”), of XORTX Therapeutics Inc., a British Columbia corporation (the “**Company**”), at an assumed public offering price of \$ per Share, which was the closing price of our common shares on the Nasdaq Capital Market (“**Nasdaq**”) on , 2025.

We are also offering on a “reasonable best efforts” basis pre-funded warrants (the “**Pre-Funded Warrants**”) to purchase up to common shares (the “**Pre-Funded Warrant Shares**”). We are offering to certain purchasers whose purchase of Shares in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common shares immediately following the consummation of this offering, the opportunity to purchase, if any such purchaser so chooses, Pre-Funded Warrants, in lieu of Shares that would otherwise result in such purchaser’s beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common shares. The purchase price of each Pre-Funded Warrant is \$ (which is equal to the assumed public offering price per Share to be sold in this offering *minus* \$0.0001, the exercise price per Pre-Funded Warrant Share). The Pre-Funded Warrants are immediately exercisable and may be exercised at any time until all of the Pre-Funded Warrants are exercised in full. For each Pre-Funded Warrant we sell, the number of Shares we are offering will be decreased on a one-for-one basis.

Our Shares and Pre-Funded Warrants are being offered together with warrants to purchase common shares (“**Common Warrants**”) to purchase up to common shares (the “**Common Warrant Shares**”). Each Share and Pre-Funded Warrant will be sold together with one Common Warrant. Each Common Warrant has an exercise price of \$ per Common Warrant Share (representing % of the assumed public offering price per Share to be sold in this offering) and will expire on the anniversary of the original issuance date. Because we will issue a Common Warrant for each Share and for each Pre-Funded Warrant sold in this offering, the number of Common Warrants sold in this offering will not change as a result of a change in the mix of Shares and Pre-Funded Warrants sold.

Our Shares (or Pre-Funded Warrants in lieu thereof) and Common Warrants (the “**Securities**”) can only be purchased together in this offering but will be issued separately. The Pre-Funded Warrant Shares issuable from time to time upon exercise of the Pre-Funded Warrants and the Common Warrant Shares issuable from time to time upon exercise of the Common Warrants are also being offered by this prospectus.

The public offering price for our Shares (or Pre-Funded Warrants in lieu thereof) and Common Warrants in this offering will be determined at the time of pricing, and may be at a discount to the then current market price of our common shares. The assumed public offering price used throughout this prospectus may not be indicative of the final offering price. The final public offering price will be determined through negotiation between us and investors based upon a number of factors, including our history and our prospects, the industry in which we operate, our past and present operating results, the previous experience of our executive officers and the general condition of the securities markets at the time of this offering. There is no established public trading market for the Pre-Funded Warrants or the Common Warrants and we do not expect a market to develop. Without an active trading market, the liquidity of the Pre-Funded Warrants and the Common Warrants will be limited. In addition, we do not intend to list the Pre-Funded Warrants or the Common Warrants on the Nasdaq Capital Market, any other national securities exchange or any other trading system.

Our common shares are currently traded under the symbol “XRTX” on Nasdaq and on the TSX Venture Exchange (the “**TSXV**”). On July 29, 2025, the last reported sale price of our common shares on Nasdaq was \$0.73 and on the TSXV was CAD\$1.07 (\$0.78).

We are both an “emerging growth company” and a “foreign private issuer,” as defined under the U.S. federal securities law and are therefore subject to reduced public company reporting requirements. See “*Prospectus Summary — Implications of Being an Emerging Growth Company and Foreign Private Issuer*” for additional information.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

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Investing in our Securities involves a high degree of risk. See “*Risk Factors*” beginning on page 10.

None of the Securities and Exchange Commission, any Canadian securities commission, or any domestic or international securities body has approved or disapproved of these Securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Because there is no minimum number of Securities or minimum aggregate amount of proceeds for this offering to close, we may sell fewer than all of the Securities offered hereby, and investors in this offering will not receive a refund in the event that we do not sell an amount of Securities sufficient to pursue the business goals outlined in this prospectus. This offering may be closed without further notice to you and will terminate on the first date that we enter into a placement agent agreement to sell the Securities offered hereby. We expect to close the offering on or about , 2025 but the offering will be terminated by , 2025, provided that the closing of the offering has not occurred by such date, and may not be extended. Because there is no escrow account and there is no minimum offering amount, investors could be in a position where they have invested in our Company, but we are unable to fulfill our objectives due to a lack of interest in this offering. Also, any proceeds from the sale of Securities offered by us will be available for our immediate use, despite uncertainty about whether we would be able to use such funds to effectively implement our business plan.

We have engaged D. Boral Capital LLC as our placement agent in connection with this offering. We refer to D. Boral Capital LLC as the “**Placement Agent**” in this prospectus. The Placement Agent is not purchasing or selling the Securities offered by us, and is not required to arrange for the purchase or sale of any specific number or dollar amount of our Securities, but will use its reasonable best efforts to solicit offers to purchase the Securities offered by this prospectus. The Securities will be offered at a fixed price and are expected to be issued in a single closing. Because there is no minimum offering amount required as a condition to closing in this offering, the actual public offering amount, Placement Agent’s fees, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above.

	Per Share and Accompanying Common Warrant	Per Pre-Funded Warrant and Accompanying Common Warrant	Total
Public offering price			
Placement Agent fees ⁽¹⁾			
Proceeds to us (before expenses) ⁽²⁾			

- (1) We have agreed to pay the Placement Agent a cash fee equal to seven percent (7%) of the aggregate gross proceeds of the offering. We have also agreed to reimburse the Placement Agent for certain of their offering-related expenses and pay the Placement Agent a non-accountable expense allowance of one percent (1%) of the aggregate gross proceeds raised in this offering. In addition, we have agreed to issue to the Placement Agent warrants (the “**Agent Warrants**”) to purchase up to common shares (the “**Agent Warrant Shares**”) representing five percent (5%) of the Shares sold in the offering, which are exercisable at a per Agent Warrant Share exercise price equal to 110% of the public offering price per Share in the offering, during the two and one-half (2.5) year period beginning six (6) months from the commencement of sales in the offering, and which are also being registered under this registration statement. See “*Plan of Distribution*” beginning on page 40 of this prospectus for a description of the compensation to be received by the Placement Agent.

- (2) Does not include proceeds from the exercise of the Common Warrants or Pre-Funded Warrants in cash, if any.

Delivery of the Securities is expected to be made on or about , 2025, subject to customary closing conditions.

Placement Agent



The date of this prospectus is , 2025.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form F-1 that we filed with the Securities and Exchange Commission (“SEC”). Before purchasing any Securities, you should carefully read this prospectus, together with the additional information described under the headings “*Incorporation of Certain Information by Reference*” and “*Where You Can Find Additional Information*.”

Neither we, nor the Placement Agent, have authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus, including the documents incorporated by reference. We and the Placement Agent take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the Securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date. Our business, financial condition, results of operations and prospects may have changed since that date.

Neither we nor the Placement Agent have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus outside the United States.

This prospectus (and the documents incorporated by reference) contain market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information, and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included in this prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “*Risk Factors*” contained in this prospectus and in the documents incorporated by reference. Accordingly, investors should not place undue reliance on this information.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under “*Where You Can Find Additional Information*.”

We express all amounts in this prospectus in United States dollars, except where otherwise indicated. References to “\$” are to United States dollars and references to “CAD\$” are to Canadian dollars.

We own or have rights to trademarks, trade names and service marks that we use in connection with the operation of our business. In addition, our name, logos and website name and address are our trademarks or service marks. Solely for convenience, in some cases, the trademarks, trade names and service marks referred to in this prospectus (and the documents incorporated by reference) are listed without the applicable ®, TM and SM symbols, but we will assert, to the fullest extent under applicable law, our rights to these trademarks, trade names and service marks. Other trademarks, trade names and service marks appearing in this prospectus (and the documents incorporated by reference) are the property of their respective owners.

We report under International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or the IASB. None of the financial statements or other financial information included or incorporated by reference were prepared in accordance with generally accepted accounting principles in the United States.

Except as otherwise indicated, references in this prospectus to “**XORTX**,” the “**Company**,” “**we**,” “**us**” and “**our**” refer to XORTX Therapeutics Inc. and its consolidated subsidiary.

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PROSPECTUS SUMMARY

This summary highlights certain information contained elsewhere in this prospectus and the documents incorporated by reference. This summary does not contain all of the information that may be important to you. You should read and carefully consider the following summary together with the entire prospectus, and all documents incorporated by reference herein. In particular, attention should be directed to the “Risk Factors,” beginning on page 10 of this prospectus and to the sections “Information on the Company” and “Operating and Financial Review and Prospects” in our Annual Report on Form 20-F for the fiscal year ended December 31, 2024, and the audited, consolidated financial statements for the years ended December 31, 2024, 2023 and 2022 and related notes thereto in our Annual Report on Form 20-F for the fiscal year ended December 31, 2024, incorporated by reference herein, before making an investment decision. See also “Cautionary Note Regarding Forward-Looking Statements,” “Incorporation of Certain Information by Reference” and “Where You Can Find Additional Information” in this prospectus.

Overview

XORTX is a late clinical-stage biotechnology company focused on identifying, developing and potentially commercializing therapies to treat diseases modulated by aberrant purine and uric acid metabolism in indications such as gout, autosomal dominant polycystic kidney disease (“ADPKD”) an orphan (rare) disease and larger, more prevalent type 2 diabetic nephropathy (“T2DN”) as well as acute kidney injury (“AKI”) associated with respiratory virus infection.

Our focus is on developing unique therapeutic products to:

1. treat gout patients, specifically those that have shown an intolerance to treatment with allopurinol;
2. slow or reverse the progression of chronic kidney disease in patients at risk of end stage kidney failure;
3. address the immediate need of individuals facing AKI associated with respiratory virus infection; and
4. treat patients with type 2 diabetic nephropathy.

We are also looking to identify 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 a novel proprietary formulation of oxypurinol, a uric acid lowering agent that works by effectively inhibiting xanthine oxidase. We are developing innovative product candidates that include new or existing drugs that we believe can be adapted to address different disease indications where aberrant purine metabolism and/or elevated uric acid is a common denominator, including gout, 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 of patients with a variety of serious or life-threatening diseases using our innovative formulations of oxypurinol, and in combination with uric acid lowering agents — a pipeline-in-a-product strategy supported by our intellectual property, established exclusive manufacturing agreements, and proposed clinical trials with experienced clinicians.

Our four current unique product development programs are:

- **XR_x-026**, a program for the treatment of gout;
- **XR_x-008**, a program for the treatment of ADPKD;
- **XR_x-101**, a program to treat AKI associated with respiratory virus infection, AKI and associated health consequences; and
- **XR_x-225**, a program for the treatment of T2DN.

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At XORTX, we aim to develop medications to improve the quality-of-life of patients with life threatening diseases by modulating aberrant purine and uric acid metabolism, including lowering chronically increased 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 designed to provide unique solutions for acute and chronic disease. We believe our therapeutic platforms can be used alone, or in combination, with synergistic activity for a tailored approach to a variety of disease entities 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 product candidates that we believe could represent significant improvements to the standard of care in multiple acute and chronic cardiovascular and renal diseases.

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

We believe our platforms can be combined in multiple ways and we believe this synergy can be applied to address acute, intermittent or chronic disease progression. For example, our XR_x-026 and XR_x-008 programs are designed for longer term stable chronic oral dosing of xanthine oxidase inhibitors (“**XOI**”), decreasing production of uric acid. We believe that our formulation technology allow us to manage the unique challenges of cardiovascular and renal disease by modulating purine metabolism and its negative health consequences on the body. Our XR_x-101 program for AKI associated with respiratory virus infection 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 XR_x-008 program is designed for longer term stable chronic oral dosing of xanthine oxidase inhibitors. We believe 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

We believe our platforms can be utilized to engineer new chemical entities and formulations of those agents that have enhanced properties. For example, our XR_x-225 product candidate program represents a potential new class of xanthine oxidase inhibitor(s) with a design that enhances their anti-inflammatory activity. The capability of tailoring the potential therapeutic benefit of this class of new agents permits us to identify targets and diseases that may respond to treatment. Through rational design, we can further optimize those small molecules and proprietary formulations to maximize their clinical potential and importantly their therapeutic effects, while minimizing potential adverse events.

Readily Scalable and Transferable

We believe our in-house small molecule and formulations design expertise are intended to create a steady succession of drug product candidates that are scalable, efficient to manufacture and produce large scale, high purity active pharmaceutical drug product. We believe this will provide a competitive advantage, new intellectual property and the opportunity to provide first-in-class products that target unmet medical needs and meaningful improvements to quality of life.

Our team’s expertise with the development of uric acid lowering agents, specifically regarding the development and use of xanthine oxidase inhibitors, has enabled the development of our therapeutic product candidates to treat the symptoms of, and potentially reduce gout attacks, delay the progression of ADPKD, AKI due to respiratory virus infection, and T2DN. There is no guarantee that the Food and Drug Administration (“**FDA**”) will approve our proposed uric acid lowering agent(s) and product candidates for the treatment of gout, kidney disease or the health consequences of diabetes.

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Product Candidate Pipeline

Our product candidates include XRx-026, XRx-008, XRx-101, and XRx-225. Our lead program, XRx-026 is designed to treat gout. This program has recently been prioritized by XORTX in our development efforts as we believe it represents a near-term opportunity for marketing approval and revenue generation. The Company believes that this program has sufficiently advanced through required chemistry, manufacturing pharmacology, toxicology and clinical studies, with the exception of a pharmacokinetic bridging study which will be conducted. Discussions with the FDA are ongoing to confirm readiness for NDA submission to gain marketing approval through the Section 505(b)(2) regulatory pathway. The Company's second program, XRx-008, has reported topline results for the XRr-OXY-101 Bridging Pharmacokinetic Study of XORLOTM (the "**XRr-OXY-101 PK Clinical Trial**") in advance of initiating Phase 3 registration clinical trial testing, the last stage of clinical development before application for FDA approval. Discussions with the FDA have confirmed that a single clinical trial with a one-year treatment period would be sufficient to make this program eligible for accelerated approval once the benefit of XORLOTM on decreasing the rate of decline of glomerular filtration rate was demonstrated. Our reported pharmacokinetic bridging study XRr-OXY-101 supports both the XRx-008 and XRx-101 programs. Future late-stage clinical studies targeting attenuation or reversal of AKI in hospitalized individuals with respiratory virus infection are planned. XRx-225 is a non-clinical stage program advancing new chemical entities toward the clinical development stage.

Products

With respect to the Company's lead and most advanced development program, XRx-026, the FDA has provided responses to the Company's Type B Meeting Package clarifying the remaining steps needed for submission of an NDA through the Section 505(b)(2) regulatory pathway for the treatment of gout. A pharmacokinetic bridging study will be conducted to support NDA submission. XORTX intends to advance this drug to marketing approval pending its FDA discussions. The Company believes that peak net sales revenue for this product could reach more than \$500 million USD per year.

XRx-008 is XORTX's late clinical stage program focused on demonstrating the potential of its novel product candidate for ADPKD. XRx-008 is the development name given to XORTX's therapeutics program and associated proprietary oral formulation of oxypurinol, appropriate for use in individuals with progressively decreasing kidney filtering capacity.

XORTX is also developing a drug product combination therapy that includes both intravenous uric acid lowering therapy combined with an oral anti-hyperuricemic xanthine oxidase inhibitor, XRx-101, for use in treating patients with AKI associated with respiratory virus infection including co-morbidities such as acute cardiac injury and sepsis.

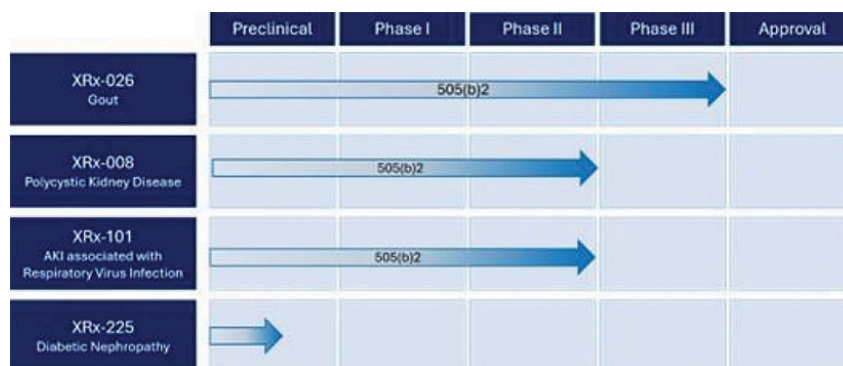
XORTX is currently evaluating novel XOI candidates for its XRx-225 program to treat T2DN as well as developing new chemical entities to address other orphan and large market disease patients with unmet medical needs.

Patents

XORTX is the exclusive licensee of two U.S. granted patents with claims to the use of all uric acid lowering agents to treat insulin resistance and diabetic nephropathy. Counterparts for some of these patent applications have also been submitted in Europe. In both the US and Europe, XORTX wholly owns composition of matter patents and applications for unique proprietary formulations of xanthine oxidase inhibitors. To date, three patents have been granted: one in the U.S. and two in Europe. XORTX has also submitted two patent applications to cover the use of uric acid lowering agents for the treatment of the health consequences of respiratory virus infection. Recently, XORTX filed a third provisional patent application covering formulations and methods of dosing xanthine oxidase inhibitors in individuals with kidney disease.

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XORTX Therapeutics Pipeline



The interpretation by XORTX based upon FDA discussions is that the 505(b)(2) pathway and right of reference to the former NDA provide XORTX the ability to rely upon previous Phase 1 and Phase 2 clinical studies and/or conduct its own additional Phase 1 and Phase 2 studies for the XRx-008 and XRx-101 programs. However, we may elect to conduct our own Phase 1 and Phase 2 studies as necessary or required to further support and gain marketing approval in the aforementioned programs. XORTX believes that the XRx-008 program will be eligible for accelerated review.

Our Strategy

Our goal is to apply our interdisciplinary expertise and pipeline-in-a-product strategy to further identify, develop and commercialize novel treatments for rare/orphan and broader indications related to health consequences associated with gout, progressive kidney disease and the health consequences of diabetes. To achieve this objective, we intend to pursue the following strategies:

1. Subject to discussions with US FDA, prepare commercial supply of drug substance and drug product, conduct a bridging pharmacokinetics study and then submit an NDA to the FDA, for the XRx-026 product candidate program, which we believe will address an unmet medical need for gout.
2. Subject to discussions with FDA, following the successful completion of the Phase 3 clinical registration trial of XRx-008 product candidate program submit an NDA to the FDA, requesting review under the Accelerated Approval program status. We believe introduction of this class of drug could establish a new standard of care for ADPKD.
3. Maximize the potential of the XRx-026 and XRx-008 product candidate programs, if approved, through independent commercialization and through opportunistic collaborations with third parties.
4. Leverage our pipeline-in-a-product strategy and experience, developing additional proprietary formulations of xanthine oxidase inhibitor and/or uric acid lowering agents to treat select renal indications and complement our activities through acquisitions or in-licensing opportunities in nephrology and diabetes when opportunities arise.

Recent Developments

On January 6, 2025, the Company announced the launch of a new late-stage program, XRx-026, to treat gout. This program will focus on developing a treatment for individuals who are intolerant to allopurinol, a common medication used to manage gout.

On January 17, 2025, the Company announced that it changed its auditor from Smythe LLP to Davidson & Company LLP, effective January 16, 2025. Our board of directors (the “**Board**”) accepted the resignation of Smythe LLP and appointed Davidson & Company LLP as the new auditor, who will hold office until the next annual general meeting. There were no reservations in Smythe LLP’s audit reports, and no reportable events occurred between the Company and its former auditor.

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On January 29, 2025, the Company participated in the Microcap Conference hosted by DealFlow Events in Atlantic City, NJ, from January 28 to 30, 2025. The Company used the conference to update investors on its newly announced gout program, XRx-026, and its plans to advance the program through a New Drug Application (“NDA”) filing. The presentation also covered the progress of XRx-008, the program for ADPKD, including preparations for registration clinical trials.

On February 24, 2025, the Company submitted a Type C meeting request to the FDA regarding its XRx-026 program for the treatment of gout. This request follows the advancement of XORLO™, the Company’s proprietary drug formulation of oxypurinol, to a stage where discussion with the FDA was necessary to effectively continue advancement of the development program. The purpose of the meeting was to review the XRx-026 program and assess its readiness for submitting an NDA through the FDA’s 505(b)(2) development pathway for gaining marketing approval for XORLO™ in the US.

On March 19, 2025, the Company provided an update regarding communications with the FDA indicating that at the request of the FDA a Type B meeting package will be provided by the Company during the next week, and additional FDA communications are expected by April 26, 2025. The Company has prepared a broad Type B meeting review at the request of the FDA, including review of chemistry, manufacturing, pharmacology, toxicology and clinical evidence regarding the Company’s XRx-026 program for the treatment of gout. Drug Development of XORLO™, the Company’s proprietary drug formulation of oxypurinol, has advanced substantially to a state where a Type B meeting and discussion with the FDA to confirm the developmental state of each element of the program is warranted. The purpose of this meeting will be to review the XRx-026 program and its readiness for submission of an NDA to gain marketing approval for XORLO™ in the US using the FDA 505(b)(2) development pathway. The Company believes that a Type B meeting will facilitate a broader discussion toward market approval.

On April 17, 2025, the Company announced receipt of notification from the Nasdaq Stock Market LLC Listing Qualifications Department that it is not in compliance with the minimum bid price requirement set forth in Nasdaq Rule 5550(a)(2) since the closing bid price for the Company’s common shares listed on Nasdaq was below US\$1.00 for 30 consecutive business days. Nasdaq Rule 5550(a)(2) requires the shares to maintain a minimum bid price of US\$1.00 per share, and Nasdaq Rule 5810(c)(3)(A) provides that failure to meet such a requirement exists when the bid price of the shares is below US\$1.00 for a period of 30 consecutive business days. It was noted that these notifications do not impact the Company’s listing on the Nasdaq Capital Market at this time. In accordance with Listing Rule 5810(c)(3)(A), the Company has a period of 180 calendar days from the date of notification to regain compliance with the minimum bid price requirement, during which time the shares will continue to trade on the Nasdaq Capital Market. If at any time before the end of the 180 calendar day period, the bid price of the shares closes at or above US\$1.00 per share for a minimum of 10 consecutive business days (subject to Nasdaq’s discretion to extend this 10 day period under Rule 5810(c)(3)(H)), and the Company continues to meet the other listing requirements, Nasdaq will provide written notification that the Company has achieved compliance with the minimum bid price requirement and will consider such deficiency matters closed. The Company is also listed on the TSX Venture Exchange and the notification letter does not affect the Company’s compliance status with such listing. The Company intends to evaluate all available options to resolve the deficiency and regain compliance with Nasdaq Rule 5550(a)(2).

On April 28, 2025, the Company announced receipt of notification that the patent “Xanthine Oxidase Inhibitor Formulations” will be granted by the European Patent Office. The patent covers compositions and methods of formulating using XORTX’s proprietary formulations of xanthine oxidase inhibitors (“XOI”) for the treatment of health consequences of chronically high uric acid, gout, renal, cardiovascular and other diseases where aberrant purine metabolism has been implicated in disease progression.

On April 30, 2025, the Company announced that it had received responses from the FDA on its Type B Meeting Package related to the development of XRx-026 for the treatment of gout. The responses clarified the remaining steps for submission of a NDA to gain approval through the Section 505(b)(2) regulatory pathway. A pharmacokinetic bridging study will be conducted to support NDA submission. Final FDA minutes are pending formalization by XORTX and the FDA.

On May 19, 2025, the Company announced a non-brokered private placement to raise up to USD \$3,000,000 through the issuance of up to 3,409,090 units of the Company at a price of USD \$0.88 per unit. Each unit will be comprised of one common share and one common share purchase warrant. Each

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warrant will entitle the holder, on exercise, to purchase one additional common share in the capital of the Company, at a price of USD \$1.20 per common share until the close of business on the day which is 60 months from the closing date; provided, however, that if the closing price of the common shares on Nasdaq is greater than USD \$2.00 for 10 or more consecutive trading days, the warrants will be accelerated and the warrants will expire on the 30th business day following the date of such notice. The net proceeds from the offering will be used to advance our programs for gout and for working capital and general corporate purpose. On July 22, 2025, the Company announced that the non-brokered private placement announced on May 19, 2025 will not proceed.

On July 22, 2025, the Company announced the closing of a non-brokered private placement of units, whereby it issued 1,267,123 units at a price of US\$0.73 per unit for aggregate gross proceeds of US\$925,000 pursuant to the listed issuer financing exemption under Part 5A of National Instrument 45-106 — Prospectus Exemptions (the “**Listed Issuer Financing Exemption**”). Under the offering, each unit consisted of one common share in the capital of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one additional common share at a price of US\$1.20 for a period of sixty (60) months following the date of issuance; provided, however, that if the closing price of the common shares on Nasdaq is greater than US\$2.00 for ten (10) or more consecutive trading days, the warrants will be accelerated and will expire on the 30th business day following the date of such notice. Because the offering is being completed pursuant to the Listed Issuer Financing Exemption, the securities issued in the offering will not be subject to a hold period pursuant to applicable Canadian securities laws. The Company intends to use the proceeds of the offering for gout programs, general corporate and working capital purposes. In connection with the offering, the Company paid an aggregate of \$12,264 in finder’s fees and issued, in aggregate, 16,800 finder’s warrants.

Risk Factors

Our ability to implement our business strategy is subject to numerous risks that you should be aware of before making an investment decision. These risks are described more fully in the sections entitled “*Risk Factors*” in this prospectus and “*Item 3. Key Information — D. Risk Factors*” in our Annual Report on Form 20-F for the year ended December 31, 2024, incorporated by reference herein.

Our Corporate Information

We were incorporated under the laws of Alberta, Canada on August 24, 2012, under the name ReVasCor Inc. and were 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, we changed our name to “XORTX Therapeutics Inc.” and XORTX Pharma Corp. became a wholly owned subsidiary. We are governed by the *Business Corporation Act* (British Columbia) (“**BCBCA**”).

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 and our telephone number is (403) 455-7727. The Company’s shares trade on the TSXV and on Nasdaq under the symbol “XRTX”, and on each of the Frankfurt Stock Exchange, Munich Stock Exchange, Berlin Stock Exchange, and Stuttgart Stock Exchange under the trading symbol “ANU”. Our website address is www.xortx.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Implications of Being an Emerging Growth Company and Foreign Private Issuer

Emerging Growth Company

As a company with less than \$1.235 billion in revenue during our last fiscal year, we qualify as an “emerging growth company” as defined in the JOBS Act. As such, we are eligible to, and intend to, take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not “emerging growth companies,” such as not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002. We may take advantage of these exemptions until we are no longer an emerging growth company. We would cease to be an emerging growth company upon

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the earlier to occur of: (1) the last day of our fiscal year following the fifth anniversary of the date of the first sale of common equity securities of the company in a registered offering under Securities Act of 1933, as amended (the “**Securities Act**”); (2) the last day of the fiscal year in which we have total annual gross revenue of \$1.235 billion or more; (3) the date on which we have issued more than \$1.0 billion in nonconvertible debt during the previous three years; or (4) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

Foreign Private Issuer

We report under the Securities Exchange Act of 1934, as amended (“**Exchange Act**”), as a “foreign private issuer” as defined under the rules of the SEC. Even after we no longer qualify as an emerging growth company, as long as we continue to qualify as a foreign private issuer under the Exchange Act, we will be exempt from certain provisions of the Exchange Act that are applicable to U.S. domestic issuers, including:

- the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations with respect to a security registered under the Exchange Act;
- the sections of the Exchange Act requiring insiders to file public reports of their share ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and
- the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q containing unaudited financial statements and other specified information, and current reports on Form 8-K upon the occurrence of specified significant events, although we report our results of operations on a quarterly basis under the Canadian securities laws.

Both foreign private issuers and emerging growth companies are also exempt from certain more stringent executive compensation disclosure rules. Thus, even if we no longer qualify as an emerging growth company, but remain a foreign private issuer, we will continue to be exempt from the more stringent compensation disclosures required of companies that are neither an emerging growth company nor a foreign private issuer.

We would cease to be a foreign private issuer at such time as more than 50% of our outstanding voting securities are held by U.S. residents, and any one of the following three circumstances applies: (i) the majority of our executive officers or directors are U.S. citizens or residents, (ii) more than 50% of our assets are located in the United States or (iii) our business is administered principally in the United States.

In this prospectus, we have taken advantage of certain of the reduced reporting requirements as a result of being an emerging growth company and a foreign private issuer. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold equity securities.

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THE OFFERING

**Common shares currently issued
and outstanding**

common shares

Common shares offered by us

Up to Shares based on an assumed public offering price of \$ per Share (the last reported sale price of our common shares on Nasdaq on , 2025).

**Common shares to be issued and
outstanding after this
offering**

common shares (assuming no sale of any Pre-Funded Warrants and before exercise of any Common Warrants).

Pre-Funded Warrants

We are offering to certain purchasers whose purchase of Shares in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of such purchaser, 9.99%) of our outstanding common shares immediately following the closing of this offering, the opportunity to purchase, if such purchasers so choose, Pre-Funded Warrants, in lieu of Shares that would otherwise result in any such purchaser's beneficial ownership, together with its affiliates and certain related parties, exceeding 4.99% (or, at the election of such purchaser, 9.99%) of our outstanding common shares immediately following the consummation of this offering. The purchase price of each Pre-Funded Warrant is equal to the purchase price per Share in this offering minus \$0.0001, the exercise price of each Pre-Funded Warrant. Each Pre-Funded Warrant is immediately exercisable and may be exercised at any time until it has been exercised in full. For each Pre-Funded Warrant we sell, the number of Shares we are offering will be decreased on a one-for-one basis. This offering also relates to the Pre-Funded Warrant Shares issuable upon exercise of any Pre-Funded Warrants sold in this offering.

Common Warrants

Each Share and each Pre-Funded Warrant will be sold together with one Common Warrant. Each Common Warrant has an exercise price per Common Warrant Share equal to % of the public offering price per Share in this offering and expires on the anniversary of the original issuance date. Because we will issue a Common Warrant for each Share and for each Pre-Funded Warrant sold in this offering, the number of Common Warrants sold in this offering will not change as a result of a change in the mix of Shares and Pre-Funded Warrants sold. This offering also relates to the Common Warrant Shares issuable upon exercise of any Common Warrants sold in this offering.

Reasonable best efforts

We have agreed to issue and sell the Shares (or Pre-Funded Warrants in lieu thereof) and Common Warrants (the "Securities") offered hereby to the investors through the Placement Agent. The Placement Agent is not required to buy or sell any specific number or dollar amount of the Securities offered hereby, but it will use its reasonable best efforts to solicit offers to purchase the Securities offered by this prospectus. See "Plan of Distribution" on page 40 of this prospectus.

Use of proceeds

We expect to receive approximately \$ million in net proceeds from the sale of the Securities offered by us in this offering, based on an assumed public offering price of \$ per Share (the last reported sale price of our common shares on Nasdaq on , 2025) and accompanying Common Warrant,

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	<p>after deducting Placement Agent fees and estimated offering expenses payable by us.</p> <p>We currently expect to use the net proceeds from this offering to fund our ongoing research and development activities, and for working capital and general corporate purposes.</p> <p>We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, our management will have broad discretion in the application of the net proceeds of this offering. See “<i>Use of Proceeds</i>” for additional information.</p>
Placement Agent	D. Boral Capital LLC
Agent’s Warrants	<p>We have agreed to issue to the Placement Agent the Agent Warrants to purchase up to a total of Agent Warrant Shares equal to five percent (5%) of the aggregate number of Shares (or Pre-Funded Warrants in lieu thereof) sold in this offering, and exercisable at a price per Agent Warrant Share equal to 110% of the offering price.</p>
Lock-up agreements	<p>Our directors and officers have agreed with the Placement Agent not to offer for sale, issue, sell, contract to sell, pledge or otherwise dispose of any of our common shares or securities convertible into common shares for a period of 180 days from the closing of this offering.</p>
Risk factors	<p>Investing in our Securities involves a high degree of risk. You should read the “<i>Risk Factors</i>” section starting on page 10 of this prospectus and “<i>Item 3. — Key Information — D. Risk Factors</i>” in our Annual Report on Form 20-F for the year ended December 31, 2024 incorporated by reference herein, and other information included or incorporated by reference in this prospectus, for a discussion of factors to consider carefully before deciding to invest in our Securities.</p>
Nasdaq and TSXV symbol	“XRTX”
<p>The number of the common shares to be issued and outstanding immediately after this offering as shown above assumes that all of the Shares offered hereby are sold (and no Pre-Funded Warrants are issued), and is based on 5,055,369 common shares issued and outstanding as of July 29, 2025. This number excludes:</p> <ul style="list-style-type: none"> • 4,097,860 common shares issuable upon the exercise of warrants outstanding, with 1,125,210 common shares issuable at a warrant exercise price of \$5.00 per common share, 810,810 common shares issuable at a warrant exercise price of \$2.18, 894,717 common shares issuable at a warrant exercise price of CDN\$4.50 per common share (US\$3.27 based on the daily average exchange rate from the Bank of Canada on July 29, 2025) and 1,267,123 common shares issuable at a warrant exercise price of \$1.20; • 129,761 common shares issuable upon the exercise of stock options to directors, officers, employees, consultants and other service providers under our stock option plan outstanding, at a weighted average exercise price of CDN\$10.51 per common share (US\$7.63 based on the daily average exchange rate from the Bank of Canada on July 29, 2025); • 67,098 common shares issuable upon the exercise of finders’ warrants and underwriters’ warrants outstanding, with 6,377 common shares issuable at a warrant exercise price of CDN\$42.30 per common share (US\$30.72 based on the daily average exchange rate from the Bank of Canada on July 29, 2025), 16,144 common shares issuable at a warrant exercise price of \$42.93 per common share, 27,777 common shares issuable at a warrant exercise price of \$10.98 per common share, and 16,800 common shares issuable at a warrant exercise price of \$1.20 per common share; • 375,776 common shares reserved for future issuances under our stock option plan; and • common shares issuable upon the exercise of the Common Warrants. 	

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RISK FACTORS

Any investment in our Securities involves a high degree of risk. You should carefully consider the risks described below and in “*Item 3. Key Information - D. Risk Factors*” in our Annual Report on Form 20-F for the year ended December 31, 2024 incorporated by reference herein, and all of the information included or incorporated by reference in this prospectus before deciding whether to purchase our Securities. The risks and uncertainties described below are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of the events or circumstances described in the following risk factors actually occur, our business, financial condition and results of operations would suffer. In that event, the price of our common shares could decline, and you may lose all or part of your investment. The risks discussed below also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements. See “*Cautionary Note Regarding Forward-Looking Statements.*”

Risks Related to the Offering

The Company and the Securities should be considered a speculative investment due to the high-risk nature of our business, and investors should carefully consider all of the information disclosed in this prospectus and the documents incorporated herein prior to making an investment in the Company. In addition, the following risk factors should be given special consideration when evaluating an investment in the Securities.

A return on our common shares is not guaranteed.

There is no guarantee that our common shares will earn any positive return in the short term or long term. Investing in the Securities is speculative and involves a high degree of risk and should be undertaken only by holders whose financial resources are sufficient to enable them to assume such risks and who have no need for immediate liquidity in their investment. Investing in the Securities is appropriate only for investors who have the capacity to absorb a loss of some or all of their holdings.

We have broad discretion in the use of proceeds from the offering.

Our management will have broad discretion with respect to the application of net proceeds received by us from the sale of the Securities under this prospectus and may spend such proceeds in ways that do not improve our results of operations or enhance the value of the common shares. Any failure by management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business or cause the price of our common shares to decline.

Future issuances of securities may result in substantial dilution to the purchasers of the Securities under this offering.

We may issue or sell additional common shares or other securities that are convertible or exchangeable into common shares in subsequent offerings or may issue additional common shares or other securities to finance future acquisitions. We cannot predict the size or nature of future sales or issuances of securities or the effect, if any, that such future sales and issuances will have on the market price of the common shares. Sales or issuances of substantial numbers of common shares or other securities that are convertible or exchangeable into common shares, or the perception that such sales or issuances could occur, may adversely affect prevailing market prices of the common shares. With any additional sale or issuance of common shares or other securities that are convertible or exchangeable into common shares, purchasers of the Securities in this offering may suffer dilution to their voting power and economic interest in the Company. Furthermore, to the extent holders of our stock options, warrants or other convertible securities convert or exercise their securities and sell the common shares they receive, the trading price of the common shares on the TSXV and on Nasdaq may decrease due to the additional amount of common shares available in the market.

The market price of our common shares may be volatile.

The market price of our common shares may be volatile and subject to wide fluctuations in response to numerous factors, many of which are beyond our control. This volatility may affect the ability of holders of common shares to sell their securities at an advantageous price. Market price fluctuations in our common

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shares may be due to our operating results failing to meet expectations of securities analysts or investors in any period, downward revision in securities analysts' estimates, adverse changes in general market conditions or economic trends, acquisitions, dispositions or other material public announcements by us or our competitors, along with a variety of additional factors. These broad market fluctuations may adversely affect the market price of the common shares.

Financial markets have periodically at times experienced significant price and volume fluctuations that have particularly affected the market prices of equity securities of companies and that have often been unrelated to the operating performance, underlying asset values or prospects of such companies. Accordingly, the market price of our common shares may decline even if our operating results, underlying asset values or prospects have not changed. Additionally, these factors, as well as other related factors, may cause decreases in asset values that are deemed to be other than temporary, which may result in impairment losses. There can be no assurance that continuing fluctuations in price and volume will not occur. If such increased levels of volatility and market turmoil continue, our operations could be adversely impacted, and the trading price of our common shares may be materially adversely affected.

Our failure to meet the continued listing requirements of Nasdaq could result in a de-listing of our common shares.

If we fail to continue to satisfy the continued listing requirements of Nasdaq, such as the corporate governance requirements or the minimum closing bid price requirement, Nasdaq will take steps to de-list our common shares. Any such de-listing would likely have a negative effect on the price of our common shares and would impair the ability to sell or purchase our common shares, as well as adversely affect our ability to issue additional securities and obtain additional financing in the future.

On April 17, 2025, we received a deficiency notice from Nasdaq informing us that our common shares had failed to comply with the US\$1.00 minimum bid price required for continued listing under Nasdaq Listing Rule 5550(a)(2) based upon the closing bid price of our common shares for the 30 consecutive business days prior to the date of the deficiency notice. In accordance with Nasdaq Listing Rule 5810(c)(3) (A), we were given 180 calendar days from the date of the deficiency notice to regain compliance with the minimum bid price requirement. If at any time before the end of the 180 calendar day period, the bid price of the shares closes at or above US\$1.00 per share for a minimum of 10 consecutive business days (subject to Nasdaq's discretion to extend this 10 day period under Rule 5810(c)(3)(H)), and the Company continues to meet the other listing requirements, Nasdaq will provide written notification that the Company has achieved compliance with the minimum bid price requirement and will consider such deficiency matters closed. The Company is also listed on the TSXV and the notification letter does not affect the Company's compliance status with such listing. The Company intends to evaluate all available options to resolve the deficiency and regain compliance with Nasdaq Listing Rule 5550(a)(2).

Our common shares may be de-listed if we do not maintain compliance with the minimum bid price requirement, as well as other continued listing requirements of the Nasdaq, and our shareholders could face significant material adverse consequences, including:

- Limited availability or market quotations for our common shares;
- Reduced liquidity of our common shares;
- Determination that our common shares are "penny stock", which would require brokers trading in our common shares to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for our common shares;
- Limited amount of news and analysts' coverage of us; and
- Decreased ability for us to issue additional equity securities or obtain additional equity or debt financing in the future.

We can provide no assurances that the price of our common shares will regain compliance with or remain above the minimum bid price requirement or that we otherwise will remain in compliance with the Nasdaq Marketplace Rules.

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A liquid market in our common shares may not be maintained.

Purchasers may be unable to sell significant quantities of common shares into the public trading markets without a significant reduction in the price of the common shares, or at all. There can be no assurance that there will be sufficient liquidity of the common shares on the trading markets, and that we will continue to meet the listing requirements of the TSXV and Nasdaq or achieve listing on any other public stock exchange. There can be no assurance that an active and liquid market for our common shares will be maintained, and purchasers may find it difficult to resell common shares.

We have applied to list the Shares, the Pre-Funded Warrant Shares and the Common Warrant Shares on the TSXV and have notified Nasdaq of the offering. Listing is subject to approval by the TSXV and no objection by Nasdaq in accordance with their respective listing requirements. [The TSXV has conditionally approved the Company's listing application.]

There is currently no established public trading market for the Common Warrants or the Pre-Funded Warrants.

There is no established public trading market for the Common Warrants or Pre-Funded Warrants, and we do not expect such a market to develop. In addition, we do not plan on making an application to list the Common Warrants or Pre-Funded Warrants on the TSXV or Nasdaq, or any other securities exchange or other trading system. This may affect the pricing of the Common Warrants and the Pre-Funded Warrants in the secondary market, the transparency and availability of trading prices, and the liquidity of the Common Warrants and the Pre-Funded Warrants. In addition, the Common Warrants have an exercise price of \$ _____ per Common Warrant Share, will be exercisable immediately, and will expire _____ years following the date of issuance. If the price of the common shares does not exceed the exercise price of the Common Warrants during the period when the Common Warrants are exercisable, the Common Warrants may not have any value.

Holders of Common Warrants and/or Pre-Funded Warrants purchased in this offering will have no rights as holders of common shares until such holders exercise their Common Warrants and/or Pre-Funded Warrants and acquire the Common Warrant Shares and/or Pre-Funded Warrant Shares.

Except in limited circumstances specified in the Common Warrants or Pre-Funded Warrants, holders of the Common Warrants and the Pre-Funded Warrants will not be entitled to any voting rights, dividends or other rights as shareholders of the Company, prior to the exercise of their Common Warrants or Pre-Funded Warrants, as applicable. The Common Warrants and Pre-Funded Warrants merely represent the right to acquire common shares at a fixed price. Until holders of Common Warrants or Pre-Funded Warrants acquire Common Warrant Shares or Pre-Funded Warrant Shares upon exercise of the Common Warrants or the Pre-Funded Warrants, holders of Common Warrants or Pre-Funded Warrants will have no rights with respect to the Common Warrant Shares or Pre-Funded Warrant Shares underlying such Common Warrant or Pre-Funded Warrants. Upon exercise of the Common Warrants or Pre-Funded Warrants, the holders will be entitled to exercise the rights of a holder of common shares only as to matters for which the record date occurs after the exercise date.

This offering is being conducted on a "reasonable best efforts" basis.

We are offering the Securities in this offering on a "reasonable best efforts" basis and the Placement Agent is under no obligation to purchase any Securities for its own account. The Placement Agent is not required to sell any specific number or dollar amount of Securities in this offering but will use its best efforts to procure purchasers for the Securities offered under this prospectus. As a reasonable best efforts offering, there can be no assurance that the offering contemplated hereby will ultimately be consummated.

An investment in our Securities is speculative, and there can be no assurance of any return on any such investment.

An investment in our Securities is highly speculative, and there is no assurance that investors will obtain any return on their investment. Investors will be subject to substantial risks involved in their investment, including the risk of losing their entire investment.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained in this prospectus and the documents incorporated by reference herein constitute forward-looking statements. These statements relate to future events or the Company's (as defined herein) future performance. All statements other than statements of historical fact are forward-looking statements. The use of any of the words "anticipate", "plan", "contemplate", "continue", "estimate", "expect", "intend", "propose", "might", "may", "will", "shall", "project", "should", "could", "would", "believe", "predict", "forecast", "pursue", "potential" and "capable" and similar expressions are intended to identify forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. No assurance can be given that these expectations will prove to be correct and such forward-looking statements included in this prospectus and the documents incorporated by reference herein should not be unduly relied upon. These statements speak only as of the date of this prospectus and the documents incorporated by reference herein. In addition, this prospectus and the documents incorporated by reference herein may contain forward-looking statements and forward-looking information attributed to third party industry sources.

In particular, forward-looking statements in this prospectus and the documents incorporated by reference herein include, but are not limited to, 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 XORLOTM, XORTX's proprietary formulation of oxypurinol, for use in the Company's XRx-026 program to treat gout, and its XRx-008 program to treat autosomal dominant kidney disease ("ADPKD"), and any other product candidates we may develop, and the labeling under any approval we may obtain;
- regulatory approvals and discussions and other regulatory developments in the United States, the EU and other countries;
- the performance of third-party manufacturers and contract research organizations;
- our plans to develop and commercialize our product candidates, if they are approved;
- our plans to advance research in other kidney disease applications;
- 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.

All forward-looking statements, including, without limitation, our examination of historical operating trends, are based upon our current expectations and various assumptions. Certain assumptions made in preparing the forward-looking statements include:

- the availability of capital to fund planned expenditures;
- prevailing regulatory, tax and environmental laws and regulations;
- the ability to secure necessary personnel, equipment, supplies and services;
- our ability to manage our growth effectively;
- the absence of material adverse changes in our industry or the global economy;
- trends in our industry and markets;

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- our ability to maintain good business relationships with our strategic partners;
- our ability to comply with current and future regulatory standards;
- our ability to protect our intellectual property rights;
- our continued compliance with third-party license terms and the non-infringement of third-party intellectual property rights;
- our ability to manage and integrate acquisitions; and
- our ability to raise sufficient debt or equity financing to support our continued growth.

We believe there is a reasonable basis for our expectations and beliefs, but they are inherently uncertain. We may not realize our expectations, and our beliefs may not prove correct. Actual results could differ materially from those described or implied by such forward-looking statements. Consequently, forward-looking statements should be regarded solely as our current plans, estimates and beliefs. You should not place undue reliance on forward-looking statements. We cannot guarantee future results, events, levels of activity, performance or achievements. We do not undertake and specifically decline any obligation to update, republish or revise forward-looking statements to reflect future events or circumstances or to reflect the occurrences of unanticipated events, except as required by law.

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EXCHANGE RATE DATA

We express all amounts in this prospectus in United States dollars, except where otherwise indicated. References to “\$” are to United States dollars and references to “CAD\$” are to Canadian dollars. The following table sets forth the annual average exchange rate of one U.S. dollar, expressed in Canadian dollars, for the years ended December 31, 2024, 2023 and 2022, as supplied by the Bank of Canada:

Year Ended	Annual Average
December 31, 2024	1.3698
December 31, 2023	1.3497
December 31, 2022	1.3013

On July 29, 2025, the Bank of Canada average daily rate of exchange was \$1.00 = CAD\$1.3771.

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USE OF PROCEEDS

We estimate our net proceeds from the offering will be \$ _____ after deducting the Placement Agent's fees and expenses and other expenses under the offering. We currently intend to use the net proceeds from the sale of the Securities offered under this prospectus, to fund our ongoing research and development activities, and for working capital and general corporate purposes. There may be circumstances where on the basis of results obtained or for other sound business reasons, a re-allocation of funds may be necessary or prudent. Accordingly, we will have broad discretion in the application of the proceeds of this offering. We incurred operating losses and negative operating cash flow for the fiscal years ended December 31, 2024 and 2023. The Company expects to use the net proceeds from the offering in pursuit of its ongoing general business objectives. To that end, a substantial portion of the net proceeds from the offering are expected to be allocated to working capital requirements. To the extent that we have negative operating cash flows in future periods, we may need to deploy a portion of the net proceeds from the offering and/or our existing working capital to fund such negative cash flow.

Our ultimate use might vary substantially from what is stated in this prospectus and will depend on a number of factors, including those referred to under the heading "*Risk Factors*" in the prospectus, the documents incorporated by reference herein, and any other factors set forth in this prospectus.

All expenses relating to the offering under this prospectus will be paid out of the gross proceeds of the offering.

DIVIDEND POLICY

We have never declared or paid any cash dividends to our shareholders, and we do not anticipate or intend to pay cash dividends in the foreseeable future. Payment of cash dividends, if any, in the future will be at the discretion of our Board in compliance with applicable legal requirements and will depend on a number of factors, including future earnings, our financial condition, operating results, contractual restrictions, capital requirements, business prospects, our strategic goals and plans to expand our business, applicable law and other factors that our Board may deem relevant.

The BCBCA imposes further restrictions on our ability to declare and pay dividends. See "*Description of Share Capital — Dividends*" for additional information.

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CAPITALIZATION

The following table sets forth our cash as well as capitalization as of March 31, 2025:

- on an actual basis;
- on a pro forma basis to reflect the issuance of 1,267,123 units, with each unit comprised of one common share and one warrant, in a non-brokered private placement, at \$0.73 per unit for total gross proceeds of \$925,000; and
- on a pro forma as adjusted basis to give further effect to the issuance of Shares and Common Warrants in this offering at an assumed public offering price of \$ per Share and associated Common Warrant, assuming no sales of any Pre-Funded Warrants, which, if sold, would reduce the number of Shares that we are offering on a one-for-one basis, and after deducting estimated Placement Agent fees and expenses and estimated offering expenses payable by us (and assuming no exercise of the Common Warrants).

You should read this information in conjunction with our consolidated financial statements and the notes thereto, and the related management's discussions and analysis of financial condition and results of operations, included in our Report on Form 6-K for the fiscal quarter ended March 31, 2025 filed with the SEC on May 16, 2025, incorporated by reference in this prospectus.

	As of March 31, 2025	
	Actual	Pro forma as adjusted
	(In thousands, except share data)	
Cash	\$ 1,895,238	\$
Equity		
Share capital	\$ 18,912,699	\$
Common shares, unlimited authorized shares, without par value; 3,788,246 common shares issued and outstanding, actual; common shares issued and outstanding, pro forma as adjusted		
Share-based payments, warrant reserve and other	\$ 5,723,404	\$
Obligation to issue common shares	\$ 24,746	\$
Accumulated other comprehensive (loss) income	\$ (52,605)	\$
Deficit	\$(21,866,926)	\$
Total Equity	\$ 2,741,318	\$
Total Capitalization	\$ 4,636,556	\$

The number of common shares outstanding after the offering as shown above assumes that all of the Shares offered hereby are sold (and no Pre-Funded Warrants are issued), and is based on 3,788,246 common shares issued and outstanding as of March 31, 2025. The table above excludes:

- 2,830,737 common shares issuable upon the exercise of warrants outstanding, with 1,125,210 common shares issuable at a warrant exercise price of \$5.00 per common share, 810,810 common shares issuable at a warrant exercise price of \$2.18, and 894,717 common shares issuable at a warrant exercise price of CDN\$4.50 per common share (US\$3.13 based on the daily average exchange rate from the Bank of Canada on March 31, 2025);
- 129,761 common shares issuable upon the exercise of stock options to directors, officers, employees, consultants and other service providers under our stock option plan outstanding, at a weighted average exercise price of CDN\$10.51 per common share (US\$7.50 based on the daily average exchange rate from the Bank of Canada on March 31, 2025);
- 50,298 common shares issuable upon the exercise of finders' warrants and underwriters' warrants outstanding, with 6,377 common shares issuable at a warrant exercise price of CDN\$42.30 per common

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share (US\$29.39 based on the daily average exchange rate from the Bank of Canada on March 31, 2025), 16,144 common shares issuable at a warrant exercise price of \$42.93 per common share, and 27,777 common shares issuable at a warrant exercise price of \$10.98 per common share;

- 375,776 common shares reserved for future issuances under our stock option plan; and
- common shares issuable upon the exercise of the Common Warrants.

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DILUTION

If you invest in the Securities in this offering, you will experience dilution to the extent of the difference between the price per Share you pay in this offering and the net tangible book value per share of our common shares immediately after this offering. As of March 31, 2025, we had a net tangible book value of approximately \$2,576,007 or \$0.68 per common share, based upon 3,788,246 common shares outstanding on such date. Net tangible book value per share represents the amount of our total tangible assets reduced by the amount of our total liabilities and divided by the total number of common shares outstanding.

After giving effect to the sale by us in this offering of _____ Shares and _____ Common Warrants at an assumed public offering price of \$ _____ per Share and accompanying Common Warrant, which is equal to the last reported sale price of our common stock on Nasdaq on _____, 2025 (assuming the sale of the maximum offering amount and that no Pre-Funded Warrants are sold in this offering), and after deducting estimated offering expenses payable by us, our adjusted net tangible book value as of March 31, 2025 would have been approximately \$ _____, or approximately \$ _____ per common share. This represents an immediate increase in net tangible book value of approximately \$ _____ per common share to existing shareholders and an immediate dilution of approximately \$ _____ per common share to new investors. The following table illustrates this calculation on a per share basis.

Assumed public offering price per Share	\$ _____
Net tangible book value per share as of March 31, 2025	\$0.68
Increase in net tangible book value per share attributable to this offering	\$ _____
As adjusted net tangible book value per share as of March 31, 2025, after giving effect to this offering	\$ _____
Dilution per share to investors purchasing Shares in this offering	\$ _____

A \$0.10 increase (decrease) in the assumed public offering price of \$ _____ per Share, which is the last reported sale price of our common shares on Nasdaq on _____, 2025, would increase (decrease) our net tangible book value per common share after this offering by \$ _____ and the dilution per common share to new investors by \$ _____, assuming the number of Shares offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting the estimated Placement Agent fees and estimated offering expenses payable by us. We may also increase or decrease the number of Shares we are offering.

An increase (decrease) of 100,000 Shares in the number of Shares offered by us, would increase (decrease) our net tangible book value after this offering by approximately \$ _____ and would decrease (increase) the net tangible book value after this offering by \$ _____ per common share and would increase (decrease) the dilution per common share to new investors by \$ _____, after deducting estimated Placement Agent fees and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of the offering determined at pricing.

The number of common shares shown above to be outstanding immediately before and after this offering is based on 3,788,246 common shares outstanding as of March 31, 2025, and excludes, as of such date:

- 2,830,737 common shares issuable upon the exercise of warrants outstanding, with 1,125,210 common shares issuable at a warrant exercise price of \$5.00 per common share, 810,810 common shares issuable at a warrant exercise price of \$2.18, and 894,717 common shares issuable at a warrant exercise price of CDN\$4.50 per common share (US\$3.13 based on the daily average exchange rate from the Bank of Canada on March 31, 2025);
- 129,761 common shares issuable upon the exercise of stock options to directors, officers, employees, consultants and other service providers under our stock option plan outstanding, at a weighted average exercise price of CDN\$10.51 per common share (US\$7.50 based on the daily average exchange rate from the Bank of Canada on March 31, 2025);
- 50,298 common shares issuable upon the exercise of finders' warrants and underwriters' warrants outstanding, with 6,377 common shares issuable at a warrant exercise price of CDN\$42.30 per common share (US\$29.39 based on the daily average exchange rate from the Bank of Canada on March 31,

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2025), 16,144 common shares issuable at a warrant exercise price of \$42.93 per common share, and 27,777 common shares issuable at a warrant exercise price of \$10.98 per common share;

- 375,776 common shares reserved for future issuances under our stock option plan; and
- common shares issuable upon the exercise of the Common Warrants.

DESCRIPTION OF SHARE CAPITAL

General

The following is a summary of the material rights of our share capital as contained in our notice of articles and articles and any amendments thereto. This summary is not a complete description of the share rights associated with our capital stock. For more detailed information, please see our notice of articles and articles, which are filed as exhibits to the registration statement of which this prospectus forms a part.

Common Shares

Outstanding Shares

Our authorized share capital consists of an unlimited number of common shares, each without par value.

As of July 29, 2025, we had 5,055,210 common shares outstanding, 129,761 common shares issuable pursuant to exercisable outstanding stock options, 67,098 common shares issuable upon the exercise of outstanding common share purchase warrants, and we had approximately 14 holders of record of our common shares. The issued and outstanding common shares are fully paid.

Voting Rights

Under our articles, the holders of our common shares are entitled to one vote for each common share held on all matters submitted to a vote of the shareholders, including the election of directors. Our notice of articles and articles do not provide for cumulative voting rights. Because of this, the holders of a plurality of the common shares entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose.

Dividends

Subject to priority rights that may be applicable to any then outstanding common shares, and the applicable provisions of the BCBCA, holders of our common shares are entitled to receive dividends, as and when declared by our Board, in their sole discretion as they see fit. For more information, see the section titled “*Dividend Policy*.”

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common shares are entitled to share ratably in the net assets legally available for distribution to shareholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding preferred shares.

Rights and Preferences

Our common shares contain no pre-emptive or conversion rights and have no provisions for redemption or repurchase for cancellation, surrender or sinking or purchase funds. There are no provisions in our notice of articles and articles requiring holders of common shares to contribute additional capital. The rights, preferences and privileges of the holders of our common shares are subject to and may be adversely affected by the rights of the holders of any series of preferred shares that may be created, authorized, designated, and issued in the future.

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Fully Paid and Non-Assessable

All of our outstanding common shares are fully paid and non-assessable.

Listing

Our common shares are listed on Nasdaq and the TSXV under the symbol “XRTX”.

Transfer Agent and Registrar

The transfer agent and registrar for our common shares is TSX Trust Company at its principal office in Toronto, Canada. Our co-transfer agent is Continental Stock Transfer & Trust Company.

DESCRIPTION OF WARRANTS

Common Warrants

The following summary of certain terms and provisions of the Common Warrants offered together with the Shares (or Pre-Funded Warrants) hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the warrant agent agreement between us and Continental Stock Transfer & Trust Company, as warrant agent, and the form of Common Warrant, both of which are filed as exhibits to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in **warrant agent agreement, including the annexes thereto, and the form of Common Warrant**.

Exercisability. The Common Warrants are exercisable at any time after their original issuance and at any time up to the date that is _____ years after their original issuance. The Common Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the Common Warrant Shares underlying the Common Warrants under the Securities Act is effective and available for the issuance of such shares, by payment in full in immediately available funds for the number of Common Warrant Shares purchased upon such exercise. The Company will use commercially reasonable efforts to maintain an effective registrations statement registering the issuance of Common Warrant Shares underlying the Common Warrants under the Securities Act. If such a registration statement is not effective or available the holder may, in its sole discretion, elect to exercise the Common Warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of Common Warrant Shares determined according to the formula set forth in the Common Warrant. No fractional shares will be issued in connection with the exercise of a Common Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Exercise Limitation. A holder will not have the right to exercise any portion of the Common Warrant if the holder (together with its affiliates and certain related parties) would beneficially own in excess of 4.99% (or, at the election of the purchaser, 9.99%) of the number of common shares outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Common Warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us.

Exercise Price. The exercise price per whole Common Warrant Share purchasable upon exercise of the Common Warrants is \$ _____ per share, which is _____ % of the public offering price of the Shares. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common shares and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Adjustment. The exercise price and the number Common Warrant Shares issuable upon exercise of the Common Warrants is subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common shares.

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Fundamental Transactions. In the event of a fundamental transaction, as described in the Common Warrants and generally including any reorganization, recapitalization or reclassification of our common shares, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common shares, or any person or group becoming the beneficial owner of more than 50% of the voting power represented by our outstanding common shares, the holders of the Common Warrants will be entitled to receive upon exercise of the Common Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Common Warrants immediately prior to such fundamental transaction without regard to any limitations on exercised contained in the Common Warrants.

Rights as a Shareholder. Except as otherwise provided in the Common Warrants or by virtue of such holder's ownership of our common shares, the holder of a Common Warrant does not have the rights or privileges of a holder of our common shares, including any voting rights, until the holder exercises the Common Warrant.

Warrant Agent. The Common Warrants will be issued in registered form under a warrant agent agreement between Continental Stock Transfer & Trust Company, as warrant agent, and us. The Common Warrants shall initially be represented only by one or more global warrants deposited with the warrant agent, as custodian on behalf of The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

Exchange Listing. We do not intend to apply to list the Common Warrants on any securities exchange or nationally recognized trading system.

Governing Law. The Common Warrants and the warrant agent agreement are governed by New York law.

Pre-Funded Warrants

The following summary of certain terms and provisions of the Pre-Funded Warrants offered hereby is not complete and is subject to, and qualified in its entirety by, the warrant agent agreement between us and Continental Stock Transfer & Trust Company, as warrant agent, and the form of Pre-Funded Warrant, which is filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the warrant agent agreement, including the annexes thereto, and the form of Pre-Funded Warrant.

The term "pre-funded" refers to the fact that the purchase price of our Shares in this offering includes almost the entire exercise price that will be paid under the Pre-Funded Warrants, except for a nominal remaining exercise price of \$0.0001. The purpose of the Pre-Funded Warrants is to enable investors that may have restrictions on their ability to beneficially own more than 4.99% (or, upon election of the holder, 9.99%) of our outstanding common shares following the consummation of this offering the opportunity to make an investment in the Company without triggering their ownership restrictions, by receiving Pre-Funded Warrants in lieu of our Shares which would result in such ownership of more than 4.99% (or 9.99%), and receive the ability to exercise their option to purchase the Pre-Funded Warrant Shares underlying the Pre-Funded Warrants at such nominal price at a later date.

Exercisability and Exercise Price. Each Pre-Funded Warrant is exercisable for one Pre-Funded Warrant Share, with an exercise price equal to \$0.0001 per Pre-Funded Warrant Share, at any time that the Pre-Funded Warrant is outstanding. There is no expiration date for the Pre-Funded Warrants. The Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the Pre-Funded Warrant Shares underlying the Pre-Funded Warrants under the Securities Act is effective and available for the issuance of such shares, by payment in full in immediately available funds for the number of Pre-Funded Warrant Shares purchased upon such exercise. The Company will use commercially reasonable efforts to maintain an effective registrations statement registering the issuance of Pre-Funded Warrant Shares underlying the Pre-Funded Warrants under the Securities Act. If such a registration statement is not effective or available the holder may, in its sole discretion, elect to exercise the Pre-Funded Warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of Pre-Funded Warrant Shares determined according

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to the formula set forth in the Pre-Funded Warrant. No fractional shares will be issued in connection with the exercise of a Pre-Funded Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price. The holder of a Pre-Funded Warrant will not be deemed a holder of our underlying common shares until the Pre-Funded Warrant is exercised.

Exercise Limitation. Subject to limited exceptions, a holder of Pre-Funded Warrants will not have the right to exercise any portion of its Pre-Funded Warrants if the holder (together with such holder's affiliates and certain related parties) would beneficially own a number of common shares in excess of 4.99% (or, upon election of the holder, 9.99%) of the common shares then outstanding after giving effect to such exercise. Any Pre-Funded Warrant holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days following notice from the holder to us.

Adjustment. The exercise price and the number of Pre-Funded Warrant Shares issuable upon exercise of the Pre-Funded Warrants is subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common shares.

Fundamental Transaction. In the event of a fundamental transaction, as described in the Pre-Funded Warrants and generally including any reorganization, recapitalization or reclassification of our common shares, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common shares, or any person or group becoming the beneficial owner of more than 50% of the voting power represented by our outstanding common shares, the holders of the Pre-Funded Warrants will be entitled to receive upon exercise of the Pre-Funded Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Pre-Funded Warrants immediately prior to such fundamental transaction without regard to any limitations on exercised contained in the Pre-Funded Warrants.

Rights as a Shareholder. Except as otherwise provided in the Pre-Funded Warrants or by virtue of such holder's ownership of our common shares, the holder of a Pre-Funded Warrant does not have the rights or privileges of a holder of our common shares, including any voting rights, until the holder exercises the Pre-Funded Warrant.

Warrant Agent. The Pre-Funded Warrants will be issued in registered form under a warrant agent agreement between Continental Stock Transfer & Trust Company, as warrant agent, and us. The Pre-Funded Warrants shall initially be represented only by one or more global warrants deposited with the warrant agent, as custodian on behalf of The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

Exchange Listing. We do not intend to apply to list the Pre-Funded Warrants on any securities exchange or other trading system.

Governing Law. The Pre-Funded Warrants and the warrant agent agreement are governed by New York law.

Agent Warrants

We have agreed to issue Agent Warrants to the Placement Agent, upon the closing of this offering, which entitle it to purchase up to a total of Agent Warrant Shares (equal to five percent (5%) of the aggregate number of Shares (or Pre-Funded Warrants in lieu thereof) sold with Common Warrants in this offering), and exercisable at a price per Agent Warrant Share equal to 110% of the offering price and will expire three (3) years from the commencement of sales of the offering. The Agent Warrants and Agent Warrant Shares are also being registered under this registration statement. The Agent Warrants will be exercisable after six (6) months from the commencement of sales of the offering. The terms of the Agent Warrants are substantially similar to the Common Warrants being issued as part of this offering.

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TAXATION

Material Canadian Federal Income Tax Considerations

The following is, as of the date of this prospectus, a general summary of the principal Canadian federal income tax considerations under the *Income Tax Act* (Canada) and the regulations thereunder (collectively, the “**Canadian Tax Act**”), generally applicable to an investor who (A) acquires, as beneficial owner, Shares or Pre-Funded Warrants, along with Common Warrants, pursuant to this offering, Pre-Funded Warrant Shares pursuant to an exercise of Pre-Funded Warrants, or Common Warrant Shares pursuant to the exercise of Common Warrants, as the case may be, and (B) for the purposes of the Canadian Tax Act and at all relevant times, (i) deals at arm’s length with the Company, the underwriter and a subsequent purchaser of Shares, Pre-Funded Warrants, Pre-Funded Warrant Shares, Common Warrants and Common Warrant Shares (each an “**Offered Security**”) (ii) is not affiliated with the Company, the underwriter and a subsequent purchaser of an Offered Security, and (iii) acquires and holds the Offered Security, as capital property (a “**Holder**”). Generally, the Offered Securities will be considered to be capital property to a Holder provided that the Holder does not use the Offered Securities in the course of carrying on a business of trading or dealing in securities and such Holder has not acquired the Offered Securities in one or more transactions considered to be an adventure or concern in the nature of trade.

This summary does not apply to a Holder (i) that is a “financial institution” for the purposes of the mark-to-market rules contained in the Canadian Tax Act; (ii) that is a “specified financial institution” as defined in the Canadian Tax Act; (iii) if an interest in such a Holder is a “tax shelter” or a “tax shelter investment,” each as defined in the Canadian Tax Act; (iv) that reports its “Canadian tax results,” as defined in the Canadian Tax Act, in a currency other than Canadian currency; (v) that has or will enter into a “derivative forward agreement” or a “synthetic disposition arrangement”, as those terms are defined in the Canadian Tax Act, with respect to the Offered Securities, (vi) that receives dividends on the Shares, Pre-Funded Warrant Shares or Common Warrant Shares under or as part of a “dividend rental arrangement”, as defined in the Canadian Tax Act, or (vii) that is exempt from tax under the Canadian Income Tax Act. **Such Holders should consult their own tax advisors.**

In addition, this summary does not address the deductibility of interest by an investor who has borrowed money to acquire Offered Securities. **Such investors should consult their own tax advisors with respect to the consequences of acquiring Offered Securities.**

Additional considerations, not discussed herein, may be applicable to an investor that (i) is a corporation resident in Canada and (ii) is (or does not deal at arm’s length for the purposes of the Canadian Tax Act with a corporation resident in Canada that is), or becomes as part of a transaction or event or series of transactions or events that includes the acquisition of Offered Securities, controlled by a non-resident person (or a group of non-resident persons that do not deal at arm’s length with each other for purpose of the Tax Act) for purposes of the “foreign affiliate dumping” rules in section 212.3 of the Canadian Tax Act. **Such investors should consult their own tax advisors with respect to the consequences of acquiring, holding and disposing of Offered Securities.**

This summary is based upon the current provisions of the Canadian Tax Act and the regulations thereunder (the “**Regulations**”), in force as of the date hereof and the Company’s understanding of the current published administrative and assessing practices of the Canada Revenue Agency (the “**CRA**”). This summary takes into account all specific proposals to amend the Canadian Tax Act and the Regulations publicly announced by or on behalf of the Minister of Finance (Canada) prior to the date hereof (the “**Tax Proposals**”), and assumes that the Tax Proposals will be enacted in the form proposed, although no assurance can be given that the Tax Proposals will be enacted in their current form or at all. This summary does not otherwise take into account any changes in law or in the administrative policies or assessing practices of the CRA, whether by legislative, governmental or judicial decision or action, nor does it take into account or consider any provincial, territorial or foreign income tax considerations, which considerations may differ significantly from the Canadian federal income tax considerations discussed in this summary.

This summary is of a general nature only, is not exhaustive of all possible Canadian federal income tax considerations and is not intended to be, nor should it be construed to be, legal or tax advice to any particular investor and no representations with respect to the income tax consequences to any investor or prospective investor

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are made. Consequently, investors and prospective investors should consult their own tax advisors for advice with respect to the tax consequences to them of acquiring, holding and disposing of Offered Securities, having regard to their particular circumstances.

Currency Conversion

Subject to certain exceptions that are not discussed in this summary, all amounts in a currency other than the Canadian dollar relevant in computing a Holder's liability under the Canadian Tax Act with respect to the acquisition, holding or disposition of Offered Securities must generally be converted into Canadian dollars using the single daily exchange rate quoted by the Bank of Canada for the day on which the amount arose or such other rate of exchange that is acceptable to the CRA.

Allocation of Offering Price

A Holder who acquires Offered Securities pursuant to this Offering will be required to allocate the purchase price paid, on a reasonable basis, between the acquired Share or Pre-Funded Warrant, as the case may be, and the acquired Common Warrant, in order to determine their respective costs to such Holder for purposes of the Canadian Tax Act.

For its purposes, the Company intends to allocate C\$* to each Common Share or Pre-Funded Warrant, as the case may be, and C\$* to each Common Warrant and believes such allocation is reasonable. The Company's allocation, however, is not binding on the CRA or on a Holder and the CRA may disagree with such allocation. Legal counsel to the Company and the underwriters express no opinion with respect to such allocation.

The adjusted cost base to a Holder of each Share will be determined by averaging the cost of such Share with the adjusted cost base to such Holder of all other common shares (if any) of the same class of the Company held by the Holder as capital property immediately prior to the acquisition.

The adjusted cost base to a Holder of each Pre-Funded Warrant will be determined by averaging the cost of such Pre-Funded Warrant with the adjusted cost base to such Holder of all other Pre-Funded Warrants (if any) held by the Holder as capital property immediately prior to the acquisition.

The adjusted cost base to a Holder of each Common Warrant will be determined by averaging the cost of such Common Warrant with the adjusted cost base to such Holder of all other Common Warrants (if any) held by the Holder as capital property immediately prior to the acquisition.

Exercise of Warrants

No gain or loss will be realized by a Holder on the exercise of a Pre-Funded Warrant to acquire Pre-Funded Warrant Shares or a Common Warrant to acquire Common Warrant Shares. When a Pre-Funded Warrant or Common Warrant is exercised, the Holder's cost of the Pre-Funded Warrant Shares or Common Warrant Shares, as the case may be, acquired thereby will be equal to the adjusted cost base of the Pre-Funded Warrant or Common Warrant, as the case may be, to the Holder, immediately before that time, plus the amount paid on the exercise of the Pre-Funded Warrant or Common Warrant, as the case may be. For the purpose of computing the adjusted cost base of each Pre-Funded Warrant Share or Common Warrant Share, as the case may be, acquired on the exercise of a Pre-Funded Warrant or Common Warrant, as the case may be, the cost of such Pre-Funded Warrant Share or Common Warrant Share, as the case may be, must be averaged with the adjusted cost base to the Holder of all other common shares of the Company held as capital property immediately before the exercise of the Pre-Funded Warrant or Common Warrant, as the case may be.

Residents of Canada

The following section of this summary applies to a Holder who, for the purposes of the Canadian Tax Act, is or is deemed to be resident in Canada at all relevant times (a "**Canadian Resident Holder**"). Certain Canadian Resident Holders whose Shares, Pre-Funded Warrant Shares or Common Warrant Shares might not constitute capital property may in certain circumstances make an irrevocable election in accordance with subsection 39(4) of the Canadian Tax Act to deem the Shares, Pre-Funded Warrant Shares or Common

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Warrant Shares, and every other “Canadian security” as defined in the Canadian Tax Act, held by such Canadian Resident Holder, in the taxation year of the election and each subsequent taxation year to be capital property. Such election is not available in respect of the Pre-Funded Warrants or Common Warrants. Canadian Resident Holders should consult their own tax advisors regarding this election.

Expiry of Warrants

In the event of the expiry of an unexercised Pre-Funded Warrant or Common Warrant, as the case may be, a Canadian Resident Holder will be considered to have disposed of such Pre-Funded Warrant or Common Warrant, as the case may be, for nil proceeds and will accordingly realize a capital loss equal to the Canadian Resident Holder’s adjusted cost base of such Pre-Funded Warrant or Common Warrant, as the case may be, immediately before that time. For a description of the tax treatment of capital losses, see “*Capital Gains and Losses*”, below.

Dividends

Dividends received or deemed to be received on the Shares, Pre-Funded Warrant Shares or Common Warrant Shares will be included in computing a Canadian Resident Holder’s income. In the case of an individual (other than certain trusts), such dividends will be subject to the gross-up and dividend tax credit rules normally applicable in respect of “taxable dividends” received from “taxable Canadian corporations” (each as defined in the Canadian Tax Act). An enhanced dividend tax credit will be available to individuals in respect of “eligible dividends” designated by the Company to the Canadian Resident Holder in accordance with the provisions of the Canadian Tax Act. There may be limitations on the ability of the Company to designate dividends as eligible dividends.

Dividends received or deemed to be received by a corporation that is a Canadian Resident Holder on the Shares, Pre-Funded Warrant Shares or Common Warrant Shares must be included in computing its income but generally will be deductible in computing its taxable income. In certain circumstances, subsection 55(2) of the Canadian Tax Act will treat a taxable dividend received by a Canadian Resident Holder that is a corporation as proceeds of disposition or a capital gain. A Canadian Resident Holder that is a corporation should consult its own tax advisors having regard to its own circumstances.

A Canadian Resident Holder that is a “private corporation” as defined in the Canadian Tax Act and certain other corporations controlled, by or for the benefit of an individual (other than a trust) or a related group of individuals (other than trusts) generally will be liable to pay an additional tax on dividends received or deemed to be received on the Shares, Pre-Funded Warrant Shares or Common Warrant Shares to the extent such dividends are deductible in computing taxable income. Such additional tax may be refundable in certain circumstances.

Dispositions of Shares or Warrants

Upon a disposition (or a deemed disposition) of a Share, Pre-Funded Warrant Share or Common Warrant Share, as the case may be (other than to the Company that is not a sale in the open market in the manner in which shares are normally purchased by any member of the public in the open market), a Pre-Funded Warrant (other than on the exercise of a Pre-Funded Warrant or a disposition arising on the expiry of a Pre-Funded Warrant) or a Common Warrant (other than on the exercise of a Common Warrant or a disposition arising on the expiry of a Common Warrant), as the case may be, a Canadian Resident Holder generally will realize a capital gain (or a capital loss) equal to the amount by which the proceeds of disposition of such shares or warrants, as the case may be, net of any reasonable costs of disposition, are greater (or are less) than the adjusted cost base of such shares or warrants, as the case may be, to the Canadian Resident Holder. The tax treatment of capital gains and capital losses is discussed in greater detail below under the subheading “*Capital Gains and Capital Losses*.”

The adjusted cost base to a Canadian Resident Holder of a Share acquired pursuant to this offering, or a Pre-Funded Warrant Share or a Common Warrant Share acquired pursuant to an exercise of a Pre-Funded Warrant or Common Warrant Share, will be averaged with the adjusted cost base of any other of the Company’s common shares held by such Canadian Resident Holder as capital property for the purposes of determining the Canadian Resident Holder’s adjusted cost base of each common share.

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Capital Gains and Capital Losses

A Canadian Resident Holder is required to include in computing its income for a taxation year one-half of the amount of any capital gain (a “**taxable capital gain**”) realized in the year. Subject to and in accordance with the provisions of the Canadian Tax Act, a Canadian Resident Holder is required to deduct one-half of the amount of any capital loss (an “**allowable capital loss**”) realized in a taxation year from taxable capital gains realized in the year by such Canadian Resident Holder. Allowable capital losses in excess of taxable capital gains may be carried back and deducted in any of the three preceding taxation years or carried forward and deducted in any following taxation year against taxable capital gains realized in such year to the extent and under the circumstances described in the Canadian Tax Act.

The amount of any capital loss realized on the disposition or deemed disposition of Shares, Pre-Funded Warrant Shares or Common Warrant Share, as the case may be, by a Canadian Resident Holder that is a corporation may be reduced by the amount of dividends received or deemed to have been received by it on such shares or shares substituted for such shares to the extent and in the circumstances specified by the Canadian Tax Act. Similar rules may apply where a Canadian Resident Holder that is a corporation is a member of a partnership or beneficiary of a trust that owns such shares directly or indirectly through a partnership or a trust. **Canadian Resident Holders to whom these rules may be relevant should consult their own tax advisors.**

A Canadian Resident Holder that is: (i) throughout the relevant taxation year a “Canadian-controlled private corporation” (as defined in the Canadian Tax Act), or (ii) at any time in the relevant taxation year, a “substantive CCPC” (as defined in the Canadian Tax Act), may also be liable to pay an additional tax (refundable in certain circumstances) on its “aggregate investment income” (as defined in the Canadian Tax Act) for the year, which will include taxable capital gains.

Minimum Tax

Capital gains realized and dividends received by a Canadian Resident Holder that is an individual or a trust, other than certain specified trusts, may give rise to minimum tax under the Canadian Tax Act. Such Canadian Resident Holders should consult their own advisors with respect to the application of minimum tax.

Non-Residents of Canada

The following section of this summary is generally applicable to a Holder who, for the purposes of the Canadian Tax Act, and at all relevant times: (i) has not been and will not be deemed to be resident in Canada; and (ii) does not use or hold the Offered Securities in the course of carrying on a business, or part of a business, in Canada (a “**Non-Canadian Holder**”). Special rules, which are not discussed in this summary, may apply to a Non-Canadian Holder that is an insurer carrying on business in Canada and elsewhere or that is an “authorized foreign bank” as defined in the Canadian Tax Act. **Such a Non-Canadian Holder should consult its own tax advisors.**

Dividends

Dividends on the Shares, Pre-Funded Warrant Shares or Common Warrant Shares paid or credited or deemed to be paid or credited to a Non-Canadian Holder will be subject to Canadian withholding tax at the rate of 25% on the gross amount of the dividend unless such rate is reduced by the terms of an applicable tax treaty. Under the Canada-United States Income Tax Convention (1980) (the “**Treaty**”), as amended, the rate of withholding tax on dividends paid or credited to a Non-Canadian Holder who is resident in the U.S. for purposes of the Treaty, is entitled to the full benefits under the Treaty and beneficially owns the dividend, or a U.S. Holder, is generally limited to 15% of the gross amount of the dividend. Not all persons who are residents of the U.S. for purposes of the Treaty will qualify for the benefits of the Treaty. Non-Canadian Holders that are resident in the U.S. are advised to consult their tax advisors in this regard. The rate of withholding tax on dividends is also reduced under other bilateral income tax treaties or conventions to which Canada is a signatory. The Multilateral Convention to Implement Tax Treaty Related to Measures to Prevent Base Erosion and Profit Shifting (the “**MLI**”), of which Canada is a signatory, affects many of Canada’s bilateral tax treaties.

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(but not the Treaty), including the ability to claim benefits under such tax treaties. **Non-Canadian Holders are urged to consult their own tax advisors to determine their entitlement to relief under an applicable income tax treaty or convention.**

Expiry of Warrants

In the event of the expiry of an unexercised Pre-Funded Warrant or Common Warrant, as the case may be, a Non-Canadian Holder will be considered to have disposed of such Pre-Funded Warrant or Common Warrant, as the case may be, for nil proceeds and will accordingly realize a capital loss equal to the Non-Canadian Holder's adjusted cost base of such Pre-Funded Warrant or Common Warrant, as the case may be, immediately before that time. For a description of the tax treatment of capital losses, see the discussion under "*Non-Residents of Canada — Disposition of Shares or*", below.

Dispositions of Shares, or Warrants

A Non-Canadian Holder generally will not be subject to tax under the Canadian Tax Act in respect of a capital gain realized on the disposition or deemed disposition of an Offered Security nor will capital losses arising therefrom be recognized under the Canadian Tax Act, unless the Offered Security constitutes "taxable Canadian property" to the Non-Canadian Holder thereof for purposes of the Canadian Tax Act, and the gain is not exempt from Canadian federal income tax pursuant to the terms of an applicable tax treaty or convention (subject to the potential application of the MLI to the tax treaty or convention).

Generally the Offered Security will not be "taxable Canadian property" to a Non-Canadian Holder if the common shares of the Company are listed on a "designated stock exchange", as defined in the Canadian Tax Act (which currently includes Nasdaq) at the time of disposition, unless at any time during the 60-month period immediately preceding the disposition the following two conditions are met concurrently: (i) the Non-Canadian Holder, persons with whom the Non-Canadian Holder did not deal at arm's length, partnerships in which the Non-Canadian Holder or persons with whom the Non-Canadian Holder did not deal at arm's length held a membership interest (either directly or indirectly through one or more partnerships), or the Non-Canadian Holder together with all such persons, owned 25% or more of the Company's issued shares of any class or series of the Company's shares; and (ii) more than 50% of the fair market value of such shares was derived directly or indirectly from one, or any combination of, real or immovable property situated in Canada, "Canadian resource properties" (as defined in the Canadian Tax Act), "timber resource properties" (as defined in the Canadian Tax Act) or an option, an interest or right in such property, whether or not such property exists. Notwithstanding the foregoing, Offered Securities may otherwise be deemed to be taxable Canadian property to a Non-Canadian Holder for purposes of the Canadian Tax Act. Even if the Offered Securities are taxable Canadian property to a Non-Canadian Holder, such Non-Canadian Holder may be exempt from tax under the Canadian Tax Act on the disposition of such Offered Securities by virtue of an applicable income tax treaty or convention (subject to the potential application of the MLI to the applicable tax treaty or convention).

A Non-Canadian Holder's capital gain (or capital loss) in respect of Offered Securities that constitute or are deemed to constitute taxable Canadian property (and are not "treaty-protected property" as defined in the Canadian Tax Act) will generally be computed and included in income in the manner described above under the subheadings "*Residents of Canada — Dispositions of Shares or Warrants*" and "*Residents of Canada — Capital Gains and Capital Losses*".

Non-Canadian Holders whose Offered Securities may be taxable Canadian property should consult their own tax advisors.

Eligibility for Investment

Based on the current provisions of the Canadian Tax Act in force as of the date prior to the date hereof, the Offered Securities, if issued on the date hereof, would be "qualified investments" under the Canadian Tax Act for trusts governed by a "registered retirement savings plan ("RRSP"), a "registered retirement income fund" ("RRIF"), a registered education savings plan ("RESP"), a "registered disability savings plan" ("RDSP"), a "tax-free savings account" ("TFSA"), a "first home savings account" ("FHSA") (each a

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“Registered Plan”) or a “deferred profit sharing plan” (“DPSP”), each as defined in the Canadian Tax Act, provided that at such time:

- (i) in the case of Shares, Pre-Funded Warrant Shares and Common Warrant Shares, such shares are listed on a “designated stock exchange” for purposes of the Canadian Tax Act (which currently includes the NASDAQ) or the Company otherwise qualifies as a “public corporation” other than a “mortgage investment corporation” (each as defined in the Canadian Tax Act); and
- (ii) in the case of Pre-Funded Warrants and Common Warrants, either (a) such warrants are listed on a “designated stock exchange” for purposes of the Canadian Tax Act (which currently includes the NASDAQ), or (b) the Pre-Funded Warrant Shares and Common Warrant Shares are qualified investments as described in paragraph (i) above and the Company is not, and deals at arm’s length with each person who is, an annuitant of, a beneficiary of, an employer or a subscriber under, or a holder of, the particular Registered Plan or DPSP.

Notwithstanding the foregoing, the holder, subscriber or annuitant of or under a Registered Plan (the “**Controlling Individual**”) will be subject to a penalty tax under the Canadian Tax Act with respect to the Offered Securities held by such Registered Plan that are “prohibited investments” for purposes of the Canadian Tax Act. An Offered Security will generally not be a “prohibited investment” provided that the Controlling Individual deals at arm’s length with the Company for purposes of the Canadian Tax Act and does not have a “significant interest” (as defined in the Canadian Tax Act) in the Company. In addition, the Shares, Pre-Funded Warrant Shares and Common Warrant Shares will generally not be a “prohibited investment” if such shares are “excluded property” (as defined in the Canadian Tax Act) for the Registered Plan.

Persons who intend to hold Offered Securities in a Registered Plan or DPSP should consult their own tax advisors in regard to the application of these rules to their particular circumstances.

INVESTORS AND POTENTIAL INVESTORS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS AS TO THE CANADIAN OR OTHER TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF THE OFFERED SECURITIES, INCLUDING, IN PARTICULAR, THE EFFECT OF ANY NON-U.S., STATE OR LOCAL TAXES.

Material U.S. Federal Income Tax Considerations for U.S. Holders

The following is a general summary of certain U.S. federal income tax considerations applicable to a U.S. Holder (as defined below) arising from and relating to the acquisition, ownership and disposition of Shares acquired pursuant to this offering, exercise, disposition, and lapse of Common Warrants acquired pursuant to this offering, the acquisition, ownership, and disposition of the Common Warrant Shares received upon exercise of such Common Warrants, and the ownership, exercise and disposition of Pre-Funded Warrants acquired pursuant to this offering and the Pre-Funded Warrant Shares received upon the exercise of such Pre-Funded Warrants. The term “securities” as used in this summary includes the Shares, Pre-Funded Warrants, Common Warrants, Common Warrant Shares and Pre-Funded Warrant Shares, as applicable.

This summary is for general information purposes only and does not purport to be a complete analysis or listing of all potential U.S. federal income tax considerations that may apply to a U.S. Holder as a result of the acquisition of securities pursuant to this offering. In addition, this summary does not take into account the individual facts and circumstances of any particular U.S. Holder that may affect the U.S. federal income tax consequences to such U.S. Holder, including specific tax consequences to a U.S. Holder under an applicable tax treaty. Accordingly, this summary is not intended to be, and should not be construed as, legal or U.S. federal income tax advice with respect to any particular U.S. Holder. This summary does not address the U.S. federal net investment income, U.S. federal alternative minimum, U.S. federal estate and gift, U.S. state and local, and non-U.S. tax consequences to U.S. Holders of the acquisition, ownership, and disposition of the securities. In addition, except as specifically set forth below, this summary does not discuss applicable tax reporting requirements. Each U.S. Holder should consult its own tax advisor regarding the U.S. federal, U.S. federal net investment income, U.S. federal alternative minimum, U.S. federal estate and gift, U.S. state and local, and non-U.S. tax consequences relating to the acquisition, ownership and disposition of the securities.

No opinion from legal counsel or ruling from the Internal Revenue Service (the “IRS”) has been requested, or will be obtained, regarding the U.S. federal income tax considerations applicable to U.S. Holders

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as discussed in this summary. This summary is not binding on the IRS, and the IRS is not precluded from taking a position that is different from, and contrary to, the positions taken in this summary. In addition, because the authorities on which this summary is based are subject to various interpretations, the IRS and the U.S. courts could disagree with one or more of the positions taken in this summary.

Scope of this Summary

Authorities

This summary is based on the Internal Revenue Code of 1986, as amended (the “Code”), Treasury Regulations (whether final, temporary, or proposed) promulgated under the Code, published rulings of the IRS, published administrative positions of the IRS and U.S. court decisions, that are in effect and available, as of the date of this document. Any of the authorities on which this summary is based could be changed in a material and adverse manner at any time, and any such change could be applied retroactively. This summary does not discuss the potential effects, whether adverse or beneficial, of any proposed legislation that, if enacted, could be applied on a retroactive or prospective basis.

U.S. Holders

For purposes of this summary, the term “U.S. Holder” means a beneficial owner of the securities acquired pursuant to this offering that is for U.S. federal income tax purposes:

- a citizen or individual resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate whose income is subject to U.S. federal income taxation regardless of its source; or
- a trust that (1) is subject to the primary supervision of a court within the United States and the control of one or more U.S. persons for all substantial decisions or (2) has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

U.S. Holders Subject to Special U.S. Federal Income Tax Rules Not Addressed

This summary does not address the U.S. federal income tax considerations applicable to U.S. Holders that are subject to special provisions under the Code, including U.S. Holders that: (a) are tax-exempt organizations, qualified retirement plans, individual retirement accounts, or other tax-deferred accounts; (b) are financial institutions, underwriters, insurance companies, real estate investment trusts, or regulated investment companies; (c) are brokers or dealers in securities or currencies or U.S. Holders that are traders in securities that elect to apply a mark-to-market accounting method; (d) have a “functional currency” other than the U.S. dollar; (e) own securities as part of a straddle, hedging transaction, conversion transaction, constructive sale, or other integrated transaction; (f) acquired the securities in connection with the exercise of employee stock options or otherwise as compensation for services; (g) hold the securities other than as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment purposes); (h) are partnerships and other pass-through entities (and investors in such partnerships and entities); (i) are subject to special tax accounting rules; (j) own, have owned or will own (directly, indirectly, or by attribution) 10% or more of the total combined voting power or value of our outstanding shares; (k) are U.S. expatriates or former long-term residents of the U.S.; or (l) are subject to taxing jurisdictions other than, or in addition to, the United States. U.S. Holders that are subject to special provisions under the Code, including U.S. Holders described immediately above, should consult their own tax advisors regarding the U.S. federal, U.S. federal net investment income, U.S. federal alternative minimum, U.S. federal estate and gift, U.S. state and local, and non-U.S. tax consequences relating to the acquisition, ownership and disposition of the securities.

If an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes holds the securities, the U.S. federal income tax consequences to such entity or arrangement and the owners of such entity or arrangement generally will depend on the activities of such entity or arrangement and the status of such owners. This summary does not address the tax consequences to any such entity or arrangement or

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owner. Owners of entities or arrangements that are classified as partnerships for U.S. federal income tax purposes should consult their own tax advisor regarding the U.S. federal income tax consequences arising from and relating to the acquisition, ownership, and disposition of the securities.

Treatment of Pre-Funded Warrants

Although it is not entirely free from doubt, we believe a Pre-Funded Warrant should be treated as a separate class of common shares for U.S. federal income tax purposes and a U.S. Holder of Pre-Funded Warrants and Pre-Funded Warrant Shares should generally be taxed in the same manner as a holder of common shares except as described below. Accordingly, no gain or loss should be recognized upon the exercise of a Pre-Funded Warrant and, upon exercise, the holding period of a Pre-Funded Warrant should carry over to the Pre-Funded Warrant Shares received. Similarly, the tax basis of the Pre-Funded Warrant should carry over to the Pre-Funded Warrant Shares received upon exercise, increased by the exercise price of US\$0.0001 per share. However, such characterization is not binding on the IRS, and the IRS may treat the Pre-Funded Warrants as warrants to acquire common shares. If so, the amount and character of a U.S. Holder's gain with respect to an investment in Pre-Funded Warrants could change, and a U.S. Holder may not be entitled to make the "QEF Election" or "Mark-to-Market Election" described below to mitigate PFIC consequences in the event that we are classified as a PFIC. Accordingly, each U.S. Holder should consult its own tax advisor regarding the risks associated with the acquisition of a Pre-Funded Warrant pursuant to this offering (including potential alternative characterizations). The balance of this discussion generally assumes that the characterization described above is respected for U.S. federal income tax purposes.

Passive Foreign Investment Company Rules

If we are considered a "passive foreign investment company" within the meaning of Section 1297 of the Code (a "**PFIC**") at any time during a U.S. Holder's holding period, the following sections will generally describe the potentially adverse U.S. federal income tax consequences to U.S. Holders of the acquisition, ownership, and disposition of the securities.

Based upon the current and expected composition of our income and assets, we believe that we may have been a PFIC for the taxable year ended December 31, 2024 and expect that we may be a PFIC for the current taxable year. No opinion of legal counsel or ruling from the IRS concerning our status as a PFIC has been obtained or is currently planned to be requested. The determination of whether any corporation was, or will be, a PFIC for a tax year depends, in part, on the application of complex U.S. federal income tax rules, which are subject to differing interpretations. In addition, whether any corporation will be a PFIC for any tax year depends on the assets and income of such corporation over the course of each such tax year and, as a result, our PFIC status for the current year and future years cannot be predicted with certainty as of the date of this document. Accordingly, there can be no assurance that the IRS will not challenge any PFIC determination made by us (or by one of our subsidiaries). Each U.S. Holder should consult its own tax advisor regarding our status as a PFIC and the PFIC status of each non-U.S. subsidiary.

In any year in which we are classified as a PFIC, a U.S. Holder will be required to file an annual report with the IRS containing such information as Treasury Regulations and/or other IRS guidance may require. In addition to penalties, a failure to satisfy such reporting requirements may result in an extension of the time period during which the IRS can assess a tax. U.S. Holders should consult their own tax advisors regarding the requirements of filing such information returns under these rules, including the requirement to file an IRS Form 8621.

We generally will be a PFIC for any tax year in which (a) 75% or more of our gross income for such tax year is passive income (the "**PFIC income test**") or (b) 50% or more of the value of our assets either produce passive income or are held for the production of passive income, based on the quarterly average of the fair market value of such assets (the "**PFIC asset test**"). "Gross income" generally includes sales revenues less the cost of goods sold, plus income from investments and from incidental or outside operations or sources, and "passive income" generally includes, for example, dividends, interest, certain rents and royalties, certain gains from the sale of stock and securities, and certain gains from commodities transactions. Assets that produce or are held for the production of passive income generally include cash, even if held as working capital (subject to a limited exception for working capital held for expenses reasonably expected to be paid within 90 days) or raised in a public offering, marketable securities, and other assets that may produce passive income. Active

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business gains arising from the sale of commodities generally are excluded from passive income if substantially all of a foreign corporation's commodities are stock in trade or inventory, depreciable property used in a trade or business, or supplies regularly used or consumed in the ordinary course of its trade or business, and certain other requirements are satisfied.

For purposes of the PFIC income test and PFIC asset test described above, if we own, directly or indirectly, 25% or more of the total value of the outstanding shares of another corporation, we will be treated as if we (a) held a proportionate share of the assets of such other corporation and (b) received directly a proportionate share of the income of such other corporation. In addition, for purposes of the PFIC income test and PFIC asset test described above, "passive income" does not include any interest, dividends, rents, or royalties that are received or accrued by us from a "related person" (as defined in Section 954(d)(3) of the Code), to the extent such items are properly allocable to the income of such related person that is not passive income.

Under certain attribution rules, if we are a PFIC, U.S. Holders will be deemed to own their proportionate share of any of our subsidiaries which is also a PFIC (a "**Subsidiary PFIC**"), and will generally be subject to U.S. federal income tax under the "Default PFIC Rules Under Section 1291 of the Code" discussed below on their proportionate share of any (i) distribution on the shares of a Subsidiary PFIC and (ii) disposition or deemed disposition of shares of a Subsidiary PFIC, both as if such U.S. Holders directly held the shares of such Subsidiary PFIC. Accordingly, U.S. Holders should be aware that they could be subject to tax under the PFIC rules even if no distributions are received and no redemptions or other dispositions of the securities are made. In addition, U.S. Holders may be subject to U.S. federal income tax on any indirect gain realized on the stock of a Subsidiary PFIC on the sale or disposition of the securities.

Default PFIC Rules Under Section 1291 of the Code

If we are a PFIC, the U.S. federal income tax consequences to a U.S. Holder of the acquisition, ownership, and disposition of the securities will depend on whether such U.S. Holder makes a "qualified electing fund" or "QEF" election (a "**QEF Election**") or makes a mark-to-market election under Section 1296 of the Code (a "**Mark-to-Market Election**") with respect to the Shares, Pre-Funded Warrants, Common Warrant Shares or Pre-Funded Warrant Shares. A U.S. Holder that does not make either a QEF Election or a Mark-to-Market Election (a "**Non-Electing U.S. Holder**") will be taxable as described below.

A Non-Electing U.S. Holder will be subject to the rules of Section 1291 of the Code with respect to (a) any gain recognized on the sale or other taxable disposition of the securities and (b) any excess distribution received on the securities. A distribution generally will be an "excess distribution" to the extent that such distribution (together with all other distributions received in the current tax year) exceeds 125% of the average distributions received during the three preceding tax years (or during a U.S. Holder's holding period for the securities, if shorter).

Under Section 1291 of the Code, any gain recognized on the sale or other taxable disposition of the securities of a PFIC (including an indirect disposition of shares of a Subsidiary PFIC), and any excess distribution received on such securities (or a distribution by a Subsidiary PFIC to its shareholder that is deemed to be received by a U.S. Holder) must be ratably allocated to each day in a Non-Electing U.S. Holder's holding period for the securities. The amount of any such gain or excess distribution allocated to the tax year of disposition or distribution of the excess distribution and to years before the entity became a PFIC, if any, would be taxed as ordinary income (and not eligible for certain preferential tax rates, as discussed below). The amounts allocated to any other tax year would be subject to U.S. federal income tax at the highest tax rate applicable to ordinary income in each such year, and an interest charge would be imposed on the tax liability for each such year, calculated as if such tax liability had been due in each such year. A Non-Electing U.S. Holder that is not a corporation must treat any such interest paid as "personal interest," which is not deductible.

If we are a PFIC for any tax year during which a Non-Electing U.S. Holder holds the securities, it will continue to be treated as a PFIC with respect to such Non-Electing U.S. Holder, regardless of whether it ceases to be a PFIC in one or more subsequent tax years. If we cease to be a PFIC, a Non-Electing U.S. Holder may terminate this deemed PFIC status with respect to the Shares, Pre-Funded Warrants, Common Warrant Shares and the Pre-Funded Warrant Shares by electing to recognize gain (which will be taxed under

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the rules of Section 1291 of the Code as discussed above) as if such securities were sold on the last day of the last tax year for which we were a PFIC. No such election, however, may be made with respect to the Warrants.

Under proposed Treasury Regulations, if a U.S. Holder has an option, warrant, or other right to acquire stock of a PFIC (such as the Common Warrants), such option, warrant or right is considered to be PFIC stock subject to the default rules of Section 1291 of the Code. Under rules described below, the holding period for the Common Warrant Shares will begin on the date a U.S. Holder acquires the related Common Warrant. This will impact the availability of the QEF Election and Mark-to-Market Election with respect to the Common Warrant Shares. Thus, a U.S. Holder will have to account for the Shares, Pre-Funded Warrants, Common Warrant Shares and the Pre-Funded Warrant Shares under the PFIC rules and the applicable elections differently.

QEF Election

A U.S. Holder that makes a QEF Election for the first tax year in which its holding period of its Shares or Pre-Funded Warrants begins generally will not be subject to the rules of Section 1291 of the Code discussed above with respect to its Shares or Pre-Funded Warrants. However, a U.S. Holder that makes a QEF Election will be subject to U.S. federal income tax on such U.S. Holder's pro rata share of (a) our net capital gain, which will be taxed as long-term capital gain to such U.S. Holder, and (b) our ordinary earnings, which will be taxed as ordinary income to such U.S. Holder. Generally, "net capital gain" is the excess of (a) net long-term capital gain over (b) net short-term capital loss, and "ordinary earnings" are the excess of (a) "earnings and profits" over (b) net capital gain. A U.S. Holder that makes a QEF Election will be subject to U.S. federal income tax on such amounts for each tax year in which we are a PFIC, regardless of whether such amounts are actually distributed to such U.S. Holder by us. However, for any tax year in which we are a PFIC and have no net income or gain, U.S. Holders that have made a QEF Election would not have any income inclusions as a result of the QEF Election. If a U.S. Holder that made a QEF Election has an income inclusion, such a U.S. Holder may, subject to certain limitations, elect to defer payment of current U.S. federal income tax on such amounts, subject to an interest charge. If such U.S. Holder is not a corporation, any such interest paid will be treated as "personal interest," which is not deductible.

A U.S. Holder that makes a timely QEF Election generally (a) may receive a tax-free distribution from us to the extent that such distribution represents "earnings and profits" that were previously included in income by the U.S. Holder because of such QEF Election and (b) will adjust such U.S. Holder's tax basis in the Shares or Pre-Funded Warrants to reflect the amount included in income or allowed as a tax-free distribution because of such QEF Election. In addition, a U.S. Holder that makes a QEF Election generally will recognize capital gain or loss on the sale or other taxable disposition of Shares or Pre-Funded Warrants.

The procedure for making a QEF Election, and the U.S. federal income tax consequences of making a QEF Election, will depend on whether such QEF Election is timely. A QEF Election will be treated as "timely" for purposes of avoiding the default PFIC rules discussed above if such QEF Election is made for the first year in the U.S. Holder's holding period for the Shares or Pre-Funded Warrants in which we were a PFIC. A U.S. Holder may make a timely QEF Election by filing the appropriate QEF Election documents at the time such U.S. Holder files a U.S. federal income tax return for such year.

A QEF Election will apply to the tax year for which such QEF Election is made and to all subsequent tax years, unless such QEF Election is invalidated or terminated or the IRS consents to revocation of such QEF Election. If a U.S. Holder makes a QEF Election and, in a subsequent tax year, we cease to be a PFIC, the QEF Election will remain in effect (although it will not be applicable) during those tax years in which we are not a PFIC. Accordingly, if we become a PFIC in another subsequent tax year, the QEF Election will be effective and the U.S. Holder will be subject to the QEF rules described above during any subsequent tax year in which we qualify as a PFIC.

As discussed above, under proposed Treasury Regulations, if a U.S. Holder has an option, warrant or other right to acquire stock of a PFIC (such as the Warrants), such option, warrant or right is considered to be PFIC stock subject to the default rules of Section 1291 of the Code. However, a U.S. Holder of an option, warrant or other right to acquire stock of a PFIC may not make a QEF Election that will apply to the option, warrant or other right to acquire PFIC stock. In addition, under proposed Treasury Regulations, if a U.S. Holder holds an option, warrant or other right to acquire stock of a PFIC, the holding period with respect to

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shares of stock of the PFIC acquired upon exercise of such option, warrant or other right will include the period that the option, warrant or other right was held.

Consequently, under the proposed Treasury Regulations, if a U.S. Holder of the Shares or Pre-Funded Warrants makes a QEF Election, such election generally will not be treated as a timely QEF Election with respect to Common Warrant Shares and the rules of Section 1291 of the Code discussed above will continue to apply with respect to such U.S. Holder's Common Warrant Shares. However, a U.S. Holder of Common Warrant Shares should be eligible to make a timely QEF Election if such U.S. Holder makes a "purging" or "deemed sale" election to recognize gain (which will be taxed under the rules of Section 1291 of the Code discussed above) as if such Common Warrant Shares were sold for fair market value. As a result of the "purging" or "deemed sale" election, the U.S. Holder will have a new basis and holding period in the Common Warrant Shares acquired upon the exercise of the Common Warrants for purposes of the PFIC rules. In addition, gain recognized on the sale or other taxable disposition (other than by exercise) of the Common Warrants by a U.S. Holder will be subject to the rules of Section 1291 of the Code discussed above. Each U.S. Holder should consult its own tax advisor regarding the application of the PFIC rules to the securities.

Upon the exercise of a Pre-Funded Warrant, a U.S. Holder may be required to make a new QEF Election with respect to the Pre-Funded Warrant Shares received. Each U.S. Holder should consult its own tax advisor regarding the application of the QEF Election rules to the Pre-Funded Warrants and Pre-Funded Warrant Shares.

U.S. Holders should be aware that, for each tax year, if any, that we are a PFIC, we can provide no assurances that we will satisfy the record keeping requirements of a PFIC, or that we will make available to U.S. Holders the information such U.S. Holders require to make a QEF Election with respect to us or any Subsidiary PFIC, and as a result, a QEF Election may not be available to U.S. Holders. U.S. Holders should consult with their own tax advisors regarding the potential application of the PFIC rules to the ownership and disposition of the securities, and the availability of certain U.S. tax elections under the PFIC rules.

A U.S. Holder makes a QEF Election by attaching a completed IRS Form 8621, including a PFIC Annual Information Statement, to a timely filed U.S. federal income tax return. However, if we do not provide the required information with regard to us or any of our Subsidiary PFICs, U.S. Holders will not be able to make a QEF Election for such entity and will continue to be subject to the rules of Section 1291 of the Code discussed above that apply to Non-Electing U.S. Holders with respect to the taxation of gains and excess distributions.

Mark-to-Market Election

A U.S. Holder may make a Mark-to-Market Election with respect to the Shares, Common Warrant Shares and Pre-Funded Warrant Shares only if such shares are marketable stock. The Shares, Common Warrant Shares and Pre-Funded Warrant Shares generally will be "marketable stock" if the Shares, Common Warrant Shares and Pre-Funded Warrant Shares are regularly traded on (a) a national securities exchange that is registered with the SEC, (b) the national market system established pursuant to Section 11A of the U.S. Exchange Act or (c) a foreign securities exchange that is regulated or supervised by a governmental authority of the country in which the market is located, provided that (i) such foreign exchange has trading volume, listing, financial disclosure, and other requirements and the laws of the country in which such foreign exchange is located, together with the rules of such foreign exchange, ensure that such requirements are actually enforced and (ii) the rules of such foreign exchange ensure active trading of listed stocks. If such stock is traded on such a qualified exchange or other market, such stock generally will be considered "regularly traded" for any calendar year during which such stock is traded, other than in de minimis quantities, on at least 15 days during each calendar quarter. Provided that the Shares, Common Warrant Shares and Pre-Funded Warrant Shares are "regularly traded" as described in the preceding sentence, such shares are expected to be marketable stock. There can be no assurance that the common shares will be "regularly traded" in subsequent calendar quarters. U.S. Holders should consult their own tax advisors regarding the marketable stock rules. A Mark-to-Market Election will not be available with respect to the Common Warrants, and it is unclear as to whether it may be available with respect to the Pre-Funded Warrants. Accordingly, each U.S. Holder should consult its own tax advisor regarding the availability of a Mark-to-Market Election with respect to the Common Warrants and Pre-Funded Warrants. The balance of this discussion generally assumes that a Mark-to-Market Election may be made with respect a Pre-Funded Warrant.

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A U.S. Holder that makes a Mark-to-Market Election with respect to its Shares or Pre-Funded Warrants generally will not be subject to the rules of Section 1291 of the Code discussed above with respect to such Shares or Pre-Funded Warrants. However, if a U.S. Holder does not make a Mark-to-Market Election beginning in the first tax year of such U.S. Holder's holding period for the Shares or Pre-Funded Warrants and such U.S. Holder has not made a timely QEF Election, the rules of Section 1291 of the Code discussed above will apply to certain dispositions of, and distributions on, the Shares or Pre-Funded Warrants.

Any Mark-to-Market Election made by a U.S. Holder for the Shares or Pre-Funded Warrants will also apply to such U.S. Holder's Common Warrant Shares and Pre-Funded Warrant Shares. As a result, if a Mark-to-Market Election has been made by a U.S. Holder with respect to its Shares, any Common Warrant Shares received will automatically be marked-to-market in the year of exercise. Because, under the proposed Treasury Regulations, a U.S. Holder's holding period for Common Warrant Shares includes the period during which such U.S. Holder held the Warrants, a U.S. Holder will be treated as making a Mark-to-Market Election with respect to its Common Warrant Shares after the beginning of such U.S. Holder's holding period for the Common Warrant Shares unless the Common Warrant Shares are acquired in the same tax year as the year in which the U.S. Holder acquired its securities. Consequently, the default rules under Section 1291 described above generally will apply to the mark-to-market gain realized in the tax year in which Common Warrant Shares are received. However, the general mark-to-market rules will apply to subsequent tax years.

A U.S. Holder that makes a Mark-to-Market Election will include in ordinary income, for each tax year in which we are a PFIC, an amount equal to the excess, if any, of (a) the fair market value of the Shares, Pre-Funded Warrants, and any Common Warrant Shares or Pre-Funded Warrant Shares, as of the close of such tax year over (b) such U.S. Holder's tax basis in such securities. A U.S. Holder that makes a Mark-to-Market Election will be allowed a deduction in an amount equal to the excess, if any, of (i) such U.S. Holder's adjusted tax basis in the Shares, Pre-Funded Warrants and any Common Warrant Shares or Pre-Funded Warrant Shares, over (ii) the fair market value of such securities (but only to the extent of the net amount of previously included income as a result of the Mark-to-Market Election for prior tax years).

A U.S. Holder that makes a Mark-to-Market Election generally also will adjust such U.S. Holder's tax basis in the Shares, Pre-Funded Warrants, Common Warrant Shares and Pre-Funded Warrant Shares to reflect the amount included in gross income or allowed as a deduction because of such Mark-to-Market Election. In addition, upon a sale or other taxable disposition of such securities, a U.S. Holder that makes a Mark-to-Market Election will recognize ordinary income or ordinary loss (not to exceed the excess, if any, of (a) the amount included in ordinary income because of such Mark-to-Market Election for prior tax years over (b) the amount allowed as a deduction because of such Mark-to-Market Election for prior tax years).

A U.S. Holder makes a Mark-to-Market Election by attaching a completed IRS Form 8621 to a timely filed U.S. federal income tax return. A timely Mark-to-Market Election applies to the tax year in which such Mark-to-Market Election is made and to each subsequent tax year, unless the securities cease to be "marketable stock" or the IRS consents to revocation of such election. Each U.S. Holder should consult its own tax advisor regarding the availability of, and procedure for making, a Mark-to-Market Election.

Although a U.S. Holder may be eligible to make a Mark-to-Market Election with respect to the Shares, Pre-Funded Warrants, Common Warrant Shares and Pre-Funded Warrant Shares, no such election may be made with respect to the stock of any Subsidiary PFIC that a U.S. Holder is treated as owning because such stock is not marketable. Hence, the Mark-to-Market Election will not be effective to eliminate the interest charge and other income inclusion rules described above with respect to deemed dispositions of Subsidiary PFIC stock or distributions from a Subsidiary PFIC to its shareholder.

Because the U.S. federal income tax characterization of the Pre-Funded Warrants is unclear, U.S. Holders of Pre-Funded Warrants should consult with their tax advisors as to the availability of a QEF Election or Mark-to-Market election with respect to the Pre-Funded Warrants.

Other PFIC Rules

Under Section 1291(f) of the Code, the IRS has issued proposed Treasury Regulations that, subject to certain exceptions, would cause a U.S. Holder that had not made a timely QEF Election to recognize gain (but not loss) upon certain transfers of securities that would otherwise be tax-deferred (e.g., gifts and exchanges

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pursuant to corporate reorganizations). However, the specific U.S. federal income tax consequences to a U.S. Holder may vary based on the manner in which the securities are transferred.

If finalized in their current form, the proposed Treasury Regulations applicable to PFICs would be effective for transactions occurring on or after April 1, 1992. Because the proposed Treasury Regulations have not yet been adopted in final form, they are not currently effective, and there is no assurance that they will be adopted in the form and with the effective date proposed. Nevertheless, the IRS has announced that, in the absence of final Treasury Regulations, taxpayers may apply reasonable interpretations of the Code provisions applicable to PFICs and that it considers the rules set forth in the proposed Treasury Regulations to be reasonable interpretations of those Code provisions. The PFIC rules are complex, and the implementation of certain aspects of the PFIC rules requires the issuance of Treasury Regulations which in many instances have not been promulgated and which, when promulgated, may have retroactive effect. U.S. Holders should consult their own tax advisors about the potential applicability of the proposed Treasury Regulations.

Certain additional adverse rules will apply with respect to a U.S. Holder if we are a PFIC, regardless of whether such U.S. Holder makes a QEF Election. For example under Section 1298(b)(6) of the Code, a U.S. Holder that uses the securities as security for a loan will, except as may be provided in Treasury Regulations, be treated as having made a taxable disposition of such securities.

In addition, a U.S. Holder who acquires securities from a decedent will not receive a “step up” in tax basis of such securities to fair market value.

Special rules also apply to the amount of foreign tax credit that a U.S. Holder may claim on a distribution from a PFIC. Subject to such special rules, foreign taxes paid with respect to any distribution in respect of stock in a PFIC are generally eligible for the foreign tax credit. The rules relating to distributions by a PFIC and their eligibility for the foreign tax credit are complicated, and a U.S. Holder should consult with their own tax advisor regarding the availability of the foreign tax credit with respect to distributions by a PFIC.

The PFIC rules are complex, and each U.S. Holder should consult its own tax advisor regarding the PFIC rules (including the applicability and advisability of a QEF Election and Mark-to-Market Election) and how the PFIC rules may affect the U.S. federal income tax consequences of the acquisition, ownership, and disposition of the securities.

U.S. Federal Income Tax Consequences of the Exercise and Disposition of Common Warrants

The following discussion describes the general rules applicable to the ownership and disposition of the Common Warrants but is subject in its entirety to the special rules described above under the heading “Passive Foreign Investment Company Rules.”

Exercise of Common Warrants

A U.S. Holder should not recognize gain or loss on the exercise of a Common Warrant and related receipt of a Common Warrant Share (unless cash is received in lieu of the issuance of a fractional Common Warrant Share). A U.S. Holder’s initial tax basis in the Common Warrant Share received on the exercise of a Common Warrant should be equal to the sum of (a) such U.S. Holder’s tax basis in such Common Warrant plus (b) the exercise price paid by such U.S. Holder on the exercise of such Common Warrant. It is unclear whether a U.S. Holder’s holding period for the Common Warrant Share received on the exercise of a Common Warrant would commence on the date of exercise of the Common Warrant or the day following the date of exercise of the Common Warrant. If we are a PFIC, a U.S. Holder’s holding period for the Common Warrant Share for PFIC purposes will begin on the date on which such U.S. Holder acquired its Common Warrant.

If the acquisition of a Pre-Funded Warrant is not treated as an acquisition of common shares for U.S. federal income tax purposes as described above in under the heading “Treatment of Pre-Funded Warrants”, then the foregoing rules described in this paragraph would also apply to the exercise of a Pre-Funded Warrant.

Disposition of Common Warrants

A U.S. Holder will recognize gain or loss on the sale or other taxable disposition of a Common Warrant in an amount equal to the difference, if any, between (a) the amount of cash plus the fair market value of any

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property received and (b) such U.S. Holder's tax basis in the Common Warrant sold or otherwise disposed of. Subject to the PFIC rules discussed above, any such gain or loss generally will be a capital gain or loss, which will be long-term capital gain or loss if the Common Warrant is held for more than one year. Deductions for capital losses are subject to complex limitations under the Code.

Expiration of Common Warrants Without Exercise

Upon the lapse or expiration of a Common Warrant, a U.S. Holder will recognize a loss in an amount equal to such U.S. Holder's tax basis in the Common Warrant. Any such loss generally will be a capital loss and will be long-term capital loss if the Common Warrants are held for more than one year. Deductions for capital losses are subject to complex limitations under the Code.

Certain Adjustments to the Common Warrants

Under Section 305 of the Code, an adjustment to the number of Common Warrant Shares that will be issued on the exercise of the Common Warrants, or an adjustment to the exercise price of the Common Warrants, may be treated as a constructive distribution to a U.S. Holder of the Common Warrants if, and to the extent that, such adjustment has the effect of increasing such U.S. Holder's proportionate interest in the "earnings and profits" or our assets, depending on the circumstances of such adjustment (for example, if such adjustment is to compensate for a distribution of cash or other property to the shareholders). Adjustments to the exercise price of Common Warrants made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing dilution of the interest of the holders of the Common Warrants should generally not be considered to result in a constructive distribution. Any such constructive distribution would be taxable whether or not there is an actual distribution of cash or other property. (See more detailed discussion of the rules applicable to distributions made by us at "Distributions on the Shares, Pre-Funded Warrants, Common Warrant Shares and Pre-Funded Warrant Shares" below).

General Rules Applicable to U.S. Federal Income Tax Consequences of the Acquisition, Ownership, and Disposition of the Shares, Pre-Funded Warrants, Common Warrant Shares and Pre-Funded Warrant Shares

The following discussion describes the general rules applicable to the ownership and disposition of the Shares, Pre-Funded Warrants, Common Warrant Shares and Pre-Funded Warrant Shares, but is subject in its entirety to the special rules described above under the heading "Passive Foreign Investment Company Rules."

Distributions on the Shares, Pre-Funded Warrants, Common Warrant Shares and Pre-Funded Warrant Shares.

A U.S. Holder that receives a distribution, including a constructive distribution, with respect to a Share, Pre-Funded Warrant, Common Warrant Share or Pre-Funded Warrant Share (as well as any constructive distribution on a Common Warrant as described above) will be required to include the amount of such distribution in gross income as a dividend (without reduction for any Canadian income tax withheld from such distribution) to the extent of our current and accumulated "earnings and profits", as computed under U.S. federal income tax principles. A dividend generally will be taxed to a U.S. Holder at ordinary income tax rates if we are a PFIC for the tax year of such distribution or the preceding tax year. To the extent that a distribution exceeds our current and accumulated "earnings and profits," such distribution will be treated first as a tax-free return of capital to the extent of a U.S. Holder's tax basis in such securities and thereafter as gain from the sale or exchange of such securities (see "Sale or Other Taxable Disposition of the Shares, Pre-Funded Warrants, Common Warrant Shares and/or Pre-Funded Warrant Shares" below). However, we may not maintain the calculations of earnings and profits in accordance with U.S. federal income tax principles, and each U.S. Holder may be required to assume that any distribution by us with respect to such securities will constitute ordinary dividend income. Dividends received on such securities generally will not be eligible for the "dividends received deduction" generally applicable to corporations.

Dividends paid by a "qualified foreign corporation" are eligible for taxation in the case of non-corporate U.S. Holders at a reduced long-term capital gains rate rather than the marginal tax rates generally applicable to ordinary income provided that certain requirements are met. Each non-corporate U.S. Holder is advised to consult its tax advisors regarding the availability of the reduced tax rate on dividends with regard to its particular circumstances.

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A non-U.S. corporation (other than a corporation that is classified as a PFIC for the taxable year in which the dividend is paid or the preceding taxable year) generally will be considered to be a qualified foreign corporation (a) if it is eligible for the benefits of a comprehensive tax treaty with the United States which the Secretary of Treasury of the United States determines is satisfactory for purposes of this provision and which includes an exchange of information provision, or (b) with respect to any dividend it pays on common shares that are readily tradable on an established securities market in the United States. We believe that we qualify as a resident of Canada for purposes of, and are eligible for the benefits of, the the Canada-United States Income Tax Convention (1980) as amended (the “**Treaty**”), which the IRS has determined is satisfactory for purposes of the qualified dividend rules and that it includes an exchange of information provision, although there can be no assurance in this regard. Further, our common shares will generally be considered to be readily tradable on an established securities market in the United States if they remain listed on the Nasdaq. Therefore, subject to the discussion below under “— Passive Foreign Investment Company Rules”, if the Treaty is applicable, or if the common shares are readily tradable on an established securities market in the United States, dividends paid by us will generally be “qualified dividend income” in the hands of non-corporate U.S. Holders, provided that certain conditions are met, including conditions relating to holding period and the absence of certain risk reduction transactions.

Sale or Other Taxable Disposition of the Shares, Pre-Funded Warrants, Common Warrant Shares and/or Pre-Funded Warrant Shares

Upon the sale or other taxable disposition of the Shares, Pre-Funded Warrants, Common Warrant Shares or Pre-Funded Warrant Shares, a U.S. Holder generally will recognize capital gain or loss in an amount equal to the difference between (a) the amount of cash plus the fair market value of any property received and (b) such U.S. Holder’s tax basis in such securities sold or otherwise disposed of. Gain or loss recognized on such sale or other taxable disposition generally will be long-term capital gain or loss if, at the time of the sale or other taxable disposition, such securities have been held for more than one year. Preferential tax rates may apply to long-term capital gain of a U.S. Holder that is an individual, estate, or trust. There are no preferential tax rates for long-term capital gain of a U.S. Holder that is a corporation. Deductions for capital losses are subject to significant limitations under the Code.

Additional Tax Considerations

Receipt of Foreign Currency

The amount of any distribution paid to a U.S. Holder in foreign currency or on the sale, exchange or other taxable disposition of the securities generally will be equal to the U.S. dollar value of such foreign currency based on the exchange rate applicable on the date of receipt (regardless of whether such foreign currency is converted into U.S. dollars at that time). If the foreign currency received is not converted into U.S. dollars on the date of receipt, a U.S. Holder will have a tax basis in the foreign currency equal to its U.S. dollar value on the date of receipt. Any U.S. Holder who receives payment in foreign currency and engages in a subsequent conversion or other disposition of the foreign currency may have a foreign currency exchange gain or loss that would be treated as ordinary income or loss, and generally will be U.S. source income or loss for foreign tax credit purposes. Different rules apply to U.S. Holders who use the accrual method of tax accounting. Each U.S. Holder should consult its own U.S. tax advisor regarding the U.S. federal income tax consequences of receiving, owning, and disposing of foreign currency.

Foreign Tax Credit

Subject to the PFIC rules discussed above, a U.S. Holder that pays (whether directly or through withholding) Canadian income tax with respect to dividends paid on the securities (or with respect to any constructive dividend on the Warrants) generally will be entitled, at the election of such U.S. Holder, to receive either a deduction or a credit for such Canadian income tax paid. Generally, a credit will reduce a U.S. Holder’s U.S. federal income tax liability on a dollar-for-dollar basis, whereas a deduction will reduce a U.S. Holder’s income subject to U.S. federal income tax. This election is made on a year-by-year basis and applies to all foreign taxes paid or accrued (whether directly or through withholding) by a U.S. Holder during a year. The foreign tax credit rules are complex and involve the application of rules that depend on a U.S. Holder’s

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particular circumstances. Accordingly, each U.S. Holder should consult its own tax advisor regarding the foreign tax credit rules.

Information Reporting; Backup Withholding Tax

Under U.S. federal income tax laws certain categories of U.S. Holders must file information returns with respect to their investment in, or involvement in, a foreign corporation. For example, U.S. return disclosure obligations (and related penalties) are imposed on U.S. Holders that hold certain specified foreign financial assets in excess of certain threshold amounts. The definition of specified foreign financial assets includes not only financial accounts maintained in foreign financial institutions, but also, unless held in accounts maintained by a financial institution, any stock or security issued by a non-U.S. person. U. S. Holders may be subject to these reporting requirements unless the securities are held in an account at certain financial institutions. Penalties for failure to file certain of these information returns are substantial. U.S. Holders should consult their own tax advisors regarding the requirements of filing information returns, including the requirement to file IRS Form 8938.

Payments made within the U.S., or by a U.S. payor or U.S. middleman, of dividends on, and proceeds arising from the sale or other taxable disposition of the securities generally may be subject to information reporting and backup withholding tax, currently at the rate of 24%, if a U.S. Holder (a) fails to furnish its correct U.S. taxpayer identification number (generally on Form W-9), (b) furnishes an incorrect U.S. taxpayer identification number, (c) is notified by the IRS that such U.S. Holder has previously failed to properly report items subject to backup withholding tax, or (d) fails to certify, under penalty of perjury, that it has furnished its correct U.S. taxpayer identification number and that the IRS has not notified such U.S. Holder that it is subject to backup withholding tax. However, certain exempt persons, such as U.S. Holders that are corporations, generally are excluded from these information reporting and backup withholding tax rules. Any amounts withheld under the U.S. backup withholding tax rules will be allowed as a credit against a U.S. Holder's U.S. federal income tax liability, if any, or will be refunded, if such U.S. Holder furnishes required information to the IRS in a timely manner.

The discussion of reporting requirements set forth above is not intended to constitute a complete description of all reporting requirements that may apply to a U.S. Holder. A failure to satisfy certain reporting requirements may result in an extension of the time period during which the IRS can assess a tax and, under certain circumstances, such an extension may apply to assessments of amounts unrelated to any unsatisfied reporting requirement. Each U.S. Holder should consult its own tax advisors regarding the information reporting and backup withholding rules.

THE ABOVE SUMMARY IS NOT INTENDED TO CONSTITUTE A COMPLETE ANALYSIS OF ALL TAX CONSIDERATIONS APPLICABLE TO U.S. HOLDERS WITH RESPECT TO THE ACQUISITION, OWNERSHIP, AND DISPOSITION OF THE SECURITIES. U.S. HOLDERS SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE TAX CONSIDERATIONS APPLICABLE TO THEM IN THEIR OWN PARTICULAR CIRCUMSTANCES.

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PLAN OF DISTRIBUTION¹

D. Boral Capital LLC, or the Placement Agent, with an address at 590 Madison Avenue, 39th Floor, New York, NY 10022, has agreed to act as our sole Placement Agent on a reasonable best efforts basis in connection with this offering subject to the terms and conditions of a placement agency agreement, dated _____, 2025 between the placement and us. The Placement Agent is not purchasing or selling any Securities in this offering but has arranged for the sale to investors of the Securities offered hereby. The public offering price of the Securities in this offering has been determined based upon arm's-length negotiations between the investors and us. The Placement Agent agreement will provide certain representations, warranties and covenants, including indemnifications, from us. Our obligation to issue and sell the Securities to the investors is subject to the closing conditions set forth in the Placement Agent agreement, including the absence of any material adverse change in our business and the receipt of certain opinions, letters and certificates from us or our counsel, which may be waived by the respective parties. All of the Securities will be sold at the offering price specified in this prospectus.

Fees and Expenses

We have agreed to pay the Placement Agent an aggregate cash placement fee equal to seven percent (7%) of the gross proceeds in this offering from sales arranged for by the Placement Agent. In addition, we have agreed to pay the Placement Agent a non-accountable expense fee of one percent (1%) of the aggregate gross proceeds raised in this offering.

Subject to certain conditions, we have also agreed to pay the following expenses relating to this offering: (a) all filing fees and expenses relating to the registration with the SEC of the Securities sold in this offering; (b) all FINRA public offering filing fees; (c) all fees and expenses relating to the listing of the Shares, Common Warrant Shares and Pre-Funded Warrant Shares on Nasdaq and the TSXV; (d) all fees, expenses and disbursements relating to the registration or qualification of the securities under the "blue sky" securities laws of such states and other jurisdictions as the Placement Agent may reasonably designate (including, without limitation, all filing and registration fees, and the reasonable fees and disbursements of the Company's "blue sky" counsel, which will be the Placement Agent's counsel); (e) all fees, expenses and disbursements relating to the registration, qualification or exemption of the securities under the securities laws of such foreign jurisdictions as the Placement Agent may reasonably designate; (f) the costs of all mailing and printing of the offering documents; (g) the fees and expenses of the Company's accountants; and (h) reasonable legal fees and disbursements for the Placement Agent's counsel. The foregoing fees, expenses and disbursements incurred by the Placement Agent and reimbursed by the Company shall not exceed \$100,000 in the event of a closing of the offering and \$20,000 in the event the closing of the offering does not occur.

Agent Warrants

We have agreed to issue to the Placement Agent the Agent Warrants to purchase up to Agent Warrant Shares representing five percent (5%) of the Shares sold offering in this offering, which are exercisable at a per Agent Warrant Share exercise price equal to 110% of the public offering price per Share in the offering, during the two and one-half (2.5) year period beginning six (6) months from the commencement of sales in the offering, and which are also being registered under this registration statement.

The Agent Warrants and the underlying shares may be deemed to be compensation by FINRA, and therefore will be subject to FINRA Rule 5110(g)(1), which provides that neither the Agent Warrants nor the Agent Warrant Shares may be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such securities by any person, for a period of 180 days immediately following the date of commencement of sales of the offering pursuant to which the Agent Warrants are being issued, subject to certain exceptions. In addition, pursuant to FINRA Rule 5110(g)(8)(A), the Agent Warrants are not exercisable more than five years from the commencement of sales of the offering. The Agent Warrants will have anti-dilution terms that are consistent with FINRA Rule 5110(g)(8)(E) and (F).

¹ Note: To be amended based on the final terms of the placement agency agreement, Agent Warrants and Lock-Up Agreements.

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Right of First Refusal

Subject to the consummation of this offering, we have granted a right of first refusal to the Placement Agent pursuant to which it has the right to act as sole book running underwriter or placement agent for any financing for the Company, (i) for a period of twelve (12) months following the closing of any offering of \$7 million or more, and (ii) for a period of six (6) months following the closing of any offering between \$3.5 million and \$7 million. If we advise the Placement Agent that we intend to pursue such a financing, we and the Placement Agent will negotiate in good faith the terms of a separate engagement agreement, which will include compensation based on customary fees. The Placement Agent's participation in any such financing will be subject to the approval of its internal committees and other customary conditions. No fee will be payable pursuant to this right of first refusal if the Company terminates the Placement Agent's engagement for cause.

Tail

Subject to certain exceptions, the Placement Agent is entitled to a cash fee equal to seven percent (7%) of the gross proceeds received by the Company from the sale of any equity, debt and/or equity derivative instruments to any investor actually introduced by the Placement Agent to the Company during the offering (excluding any existing shareholders of the Company), in connection with any public or private financing or capital raise, and such financing is consummated within the twelve (12) month period following the expiration or termination of the placement agency agreement.

Lock-Up Agreements.

In connection with this offering, each of our executive officers and directors has agreed, subject to certain exceptions set forth in the lock-up agreements, not to offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any share capital of the Company or any securities convertible into or exercisable or exchangeable for share capital of the Company, for one hundred eighty (180) days following the closing of the offering.

Securities Issuance Standstill

In addition, we have agreed that for a period of ninety (90) days from the closing date of the offering, without the prior written consent of the Placement Agent, we will not (a) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any share capital of the Company or any securities convertible into or exercisable or exchangeable for share capital of the Company; (b) file or caused to be filed any registration statement with the SEC relating to the offering of any share capital of the Company or any securities convertible into or exercisable or exchangeable for share capital of the Company; or (c) complete any offering of debt securities of the Company, other than entering into a line of credit with a traditional bank; (d) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of share capital of the Company, whether any such transaction described in clauses (a) through (d) hereof is to be settled by delivery of share capital of the Company or such other securities, in cash or otherwise (all of such matters, the "Standstill"). So long as none of such equity securities shall be saleable in the public market until the expiration of the ninety (90) day period described above, the following matters shall not be prohibited by the Standstill: (i) the adoption of an equity incentive plan and the grant of awards or equity pursuant to any equity incentive plan, and the filing of a registration statement on Form S-8; and (ii) the issuance of equity securities in connection with an acquisition or a strategic relationship, which may include the sale of equity securities.

Determination of Offering Price

The public offering price of the Securities we are offering was negotiated between us and the investors, in consultation with the Placement Agent based on the trading of our common shares prior to the offering, among other things. Other factors considered in determining the public offering price of the Securities we are offering include our history and prospects, the stage of development of our business, our business plans for

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the future and the extent to which they have been implemented, an assessment of our management, general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Passive Market Making

In connection with this offering, the Placement Agent may engage in passive market making transactions in our common stock on Nasdaq in accordance with Rule 103 of Regulation M under the Exchange Act during a period before the commencement of offers or sales of shares of our common stock and extending through the completion of the distribution.

Indemnification

We have agreed to indemnify the Placement Agent against certain liabilities, including liabilities under the Securities Act, and liabilities arising from breaches of representations and warranties contained in the placement agency agreement, or to contribute to payments that the Placement Agent may be required to make in respect of those liabilities.

Potential Conflicts of Interest

The Placement Agent and its affiliates may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which it may receive customary fees and reimbursement of expenses. In the ordinary course of its various business activities, the Placement Agent and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for its own accounts and for the accounts of its customers, and such investment and securities activities may involve securities and/or instruments of our Company. The Placement Agent and its affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments, in compliance with applicable securities laws.

Electronic Distribution

This prospectus may be made available in electronic format on websites or through other online services maintained by the Placement Agent or by an affiliate. Other than this prospectus, the information on the Placement Agent's website and any information contained in any other website maintained by the Placement Agent is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the Placement Agent, and should not be relied upon by investors.

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EXPENSES OF THE OFFERING

The following is a statement of the expenses (all of which are estimated), other than any fees and expenses reimbursed by us to be incurred in connection with the offering under this prospectus. The amounts set forth below are in United States Dollars. All of the amounts below are estimated, other than SEC registration filing fees and FINRA filing fees.

SEC Registration Fee	\$
FINRA Filing Fee	\$
Nasdaq Listing Fees	\$
TSXV Listing Fees	\$
Printing Expenses	\$
Legal Fees and Expenses	\$
Accountants' Fees and Expenses	\$
Transfer Agent Fees and Expenses	\$
Total	\$

LEGAL MATTERS

The validity of the securities being offered by this prospectus and other legal matters concerning this offering relating to Canadian law will be passed upon for the Company by Dentons Canada LLP. Certain legal matters in connection with this offering relating to U.S. law will be passed upon for the Company by Troutman Pepper Locke LLP and for the Placement Agent by Sichenzia Ross Ference Carmel LLP.

EXPERTS

Davidson & Company LLP, located at 1200 — 609 Granville Street, Pacific Centre, Vancouver, BC V7Y 1G6 Canada is our independent registered public accounting firm and had been appointed as our independent auditor. The consolidated financial statements of XORTX as of and for the year ended December 31, 2024 have been audited by Davidson & Company LLP, independent registered public accounting firm, as set forth in their report thereon. Davidson & Company LLP is independent with respect to us within the meaning of the Code of Professional Conduct of the Chartered Professional Accountants of British Columbia and under all relevant U.S. professional and regulatory standards, including the Public Company Accounting Oversight Board Rule 3520. We have incorporated by reference the above referenced financial statements in this prospectus and in this registration statement in reliance on the report of Davidson & Company LLP given on their authority as experts in accounting and auditing.

Smythe LLP, located at 1700 — 475 Howe Street, Vancouver, British Columbia, Canada V6C 2B3 was our former independent registered public accounting firm, appointed as our independent auditor. Smythe LLP resigned as auditors of the Company effective January 16, 2025, and Davidson & Company LLP was appointed as auditors of the Company at such date. The consolidated financial statements of XORTX as of and for the years ended December 31, 2023 and 2022 have been audited by Smythe LLP, independent registered public accounting firm, as set forth in their report thereon. Smythe LLP is independent with respect to us within the meaning of the Code of Professional Conduct of the Chartered Professional Accountants of British Columbia and under all relevant U.S. professional and regulatory standards, including the Public Company Accounting Oversight Board Rule 3520. We have incorporated by reference the above referenced financial statements in this prospectus and in this registration statement in reliance on the report of Smythe LLP given on their authority as experts in accounting and auditing.

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DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or person controlling the registrant in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

ENFORCEMENT OF CIVIL LIABILITIES

We are incorporated under the laws of British Columbia, Canada. Some of our directors and officers, and some of the experts named in this prospectus, are residents of Canada or otherwise reside outside of the United States, and all or a substantial portion of their assets, and all or a substantial portion of our assets, are located outside of the United States. We have appointed an agent for service of process in the United States, but it may be difficult for shareholders who reside in the United States to effect service within the United States upon those directors, officers and experts who are not residents of the United States. It may also be difficult for shareholders who reside in the United States to realize in the United States upon judgments of courts of the United States predicated upon our civil liability and the civil liability of our directors, officers and experts under the U.S. federal securities laws. There can be no assurance that U.S. investors will be able to enforce against us, our directors, officers or certain experts named herein who are residents of Canada or other countries outside the United States, any judgments in civil and commercial matters, including judgments under the U.S. federal securities laws. There can be no assurance that U.S. investors will be able to enforce against us, our directors, officers or certain experts named herein who are residents of Canada or other countries outside the United States, any judgments in civil and commercial matters, including judgments under the U.S. federal securities laws. There is uncertainty with respect to whether a Canadian court would take jurisdiction on a matter of liability predicated solely upon U.S. federal securities laws, and uncertainty with respect to whether a Canadian court would enforce a foreign judgment on liabilities predicated upon the securities laws of the United States.

We have appointed C T Corporation System, at 28 Liberty Street, New York, NY 10005, Ph: (212) 894-8940, as our registered agent.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file reports and other information with the securities commissions and similar regulatory authorities in certain provinces of Canada. These reports and information are available to the public free of charge on SEDAR+ at www.sedarplus.ca.

We are subject to the information requirements of the Exchange Act relating to foreign private issuers and, in accordance therewith, file and furnish reports and other information with the SEC. The SEC maintains an internet website at www.sec.gov, from which you can electronically access the documents we have filed with the SEC's Electronic Data Gathering and Retrieval system at www.sec.gov, including the registration statement of which this prospectus forms a part and its exhibits.

Readers should rely only on information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide the reader with different information. We are not making an offer of the Securities in any jurisdiction where the offer is not permitted. Readers should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front of this prospectus, unless otherwise noted herein or as required by law. It should be assumed that the information appearing in this prospectus and the documents incorporated herein by reference are accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates.

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INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information we file with the SEC. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus.

We incorporate by reference the documents listed below:

- our Annual Report on Form 20-F for the fiscal year ended December 31, 2024 filed with the SEC on May 12, 2025;
- our Report on Form 6-K furnished to the SEC on May 15, 2025; and
- the description of the securities contained in our Amendment No. 1 to the registration statement on Form 8-A filed with the SEC on October 4, 2021 (File No. 001-40858) pursuant to Section 12 of the Exchange Act, together with all amendments and reports filed for the purpose of updating that description.

We will provide, free of charge upon written or oral request, to each person to whom this prospectus is delivered, including any beneficial owner of the securities, a copy of any or all of the information that has been incorporated by reference into this prospectus, but which has not been delivered with the prospectus. The information contained on or linked to or from our website is not incorporated by reference into this prospectus and should not be considered part of this prospectus. Requests for such information should be made to us at the following address:

3710 — 33rd Street NW Calgary, Alberta, Canada, T2L 2M1
1 (403) 455-7727
info@xortx.com

You should assume that the information appearing in this prospectus, as well as the information we previously filed with the SEC and incorporated by reference, is accurate as of the dates indicated in those documents only. Our business, financial condition and results of operations and prospects may have changed since those dates.

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	Up to	Common Shares
Up to	Pre-Funded Warrants to purchase up to an aggregate of Common Shares	
	Up to	Common Warrants to purchase up to an aggregate of Common Shares
Up to	Common Shares issuable upon the exercise of the Common Warrants and the Pre-Funded Warrants	

PRELIMINARY PROSPECTUS

, 2025



Placement Agent

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 6. Indemnification of Directors and Officers

XORTX is subject to the provisions of Part 5, Division 5 of the *Business Corporations Act* (British Columbia) (the “BCBCA”). Under Section 160 of the BCBCA, XORTX may, subject to Section 163 of the BCBCA do one or both of the following:

- (a) indemnify an eligible party against all eligible penalties to which the eligible party is or may be liable; or
- (b) after final disposition of an eligible proceeding, pay the expenses actually and reasonably incurred by an eligible party in respect of that proceeding,

where:

- (i) “eligible party” means, in relation to XORTX, means an individual who
 - i. is or was a director or officer of XORTX,
 - ii. is or was a director or officer of another corporation
 - 1. at a time when the corporation is or was an affiliate of XORTX, or
 - 2. at the request of XORTX, or
 - iii. at the request of XORTX, is or was, or holds or held a position equivalent to that of, a director or officer of a partnership, trust, joint venture or other unincorporated entity, and includes, except in the definition of “eligible proceeding” and except in sections 163(1) (c) and (d) and 165 of the BCBCA, the heirs and personal or other legal representatives of that individual;
- (ii) “eligible penalty” means a judgment, penalty or fine awarded or imposed in, or an amount paid in settlement of, an eligible proceeding,
- (iii) “eligible proceeding” means a proceeding in which an eligible party or any of the heirs and personal or other legal representatives of the eligible party, by reason of the eligible party being or having been a director or officer of, or holding or having held a position equivalent to that of a director or officer of, XORTX or an associated corporation
 - i. is or may be joined as a party, or
 - ii. is or may be liable for or in respect of a judgment, penalty or fine in, or expenses related to, the proceeding,
- (iv) “expenses” includes costs, charges and expenses, including legal and other fees, but does not include judgments, penalties, fines or amounts paid in settlement of a proceeding, and
- (v) “proceeding” includes any legal proceeding or investigative action, whether current, threatened, pending or completed.

Under Section 161 of the BCBCA, and subject to Section 163 of the BCBCA, XORTX must, after the final disposition of an eligible proceeding, pay the expenses actually and reasonably incurred by an eligible party in respect of that proceeding if the eligible party (a) has not been reimbursed for those expenses and (b) is wholly successful, on the merits or otherwise, in the outcome of the proceeding or is substantially successful on the merits in the outcome of the proceeding.

Under Section 162 of the BCBCA, and subject to Section 163 of the BCBCA, XORTX may pay, as they are incurred in advance of the final disposition of an eligible proceeding, the expenses actually and reasonably incurred by an eligible party in respect of the proceeding, provided that XORTX must not make such payments

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unless it first receives from the eligible party a written undertaking that, if it is ultimately determined that the payment of expenses is prohibited under Section 163 of the BCBCA, the eligible party will repay the amounts advanced.

Under Section 163 of the BCBCA, XORTX must not indemnify an eligible party against eligible penalties to which the eligible party is or may be liable or pay the expenses of an eligible party under Sections 160(b), 161 or 162 of the BCBCA, as the case may be, if any of the following circumstances apply:

- (a) if the indemnity or payment is made under an earlier agreement to indemnify or pay expenses and, at the time that the agreement to indemnify or pay expenses was made, XORTX was prohibited from giving the indemnity or paying the expenses by XORTX's memorandum or Articles;
- (b) if the indemnity or payment is made otherwise than under an earlier agreement to indemnify or pay expenses and, at the time that the indemnity or payment is made, XORTX is prohibited from giving the indemnity or paying the expenses by XORTX's memorandum or Articles;
- (c) if, in relation to the subject matter of the eligible proceeding, the eligible party did not act honestly and in good faith with a view to the best interests of XORTX or the associated corporation, as the case may be; or
- (d) in the case of an eligible proceeding other than a civil proceeding, if the eligible party did not have reasonable grounds for believing that the eligible party's conduct in respect of which the proceeding was brought was lawful.

If an eligible proceeding is brought against an eligible party by or on behalf of XORTX or by or on behalf of an associated corporation, XORTX must not either (a) indemnify the eligible party under Section 160(a) of the BCBCA against eligible penalties to which the eligible party is or may be liable in respect of the proceeding, or pay the expenses of the eligible party under Sections 160(b), 161 or 162 of the BCBCA, as the case may be, in respect of the proceeding.

Under Section 164 of the BCBCA, despite any other provision of Part 5, Division 5 of the BCBCA and whether or not payment of expenses or indemnification has been sought, authorized or declined under Part 5, Division 5 of the BCBCA, on application of XORTX or an eligible party, the court may do one or more of the following:

- (a) order XORTX to indemnify an eligible party against any liability incurred by the eligible party in respect of an eligible proceeding;
- (b) order XORTX to pay some or all of the expenses incurred by an eligible party in respect of an eligible proceeding;
- (c) order the enforcement of, or any payment under, an agreement of indemnification entered into by XORTX;
- (d) order XORTX to pay some or all of the expenses actually and reasonably incurred by any person in obtaining an order under Section 164 of the BCBCA; or
- (e) make any other order the court considers appropriate.

Section 165 of the BCBCA provides that XORTX may purchase and maintain insurance for the benefit of an eligible party or the heirs and personal or other legal representatives of the eligible party against any liability that may be incurred by reason of the eligible party being or having been a director or officer of, or holding or having held a position equivalent to that of a director or officer of, XORTX or an associated corporation.

Under XORTX's articles, and subject to the BCBCA, XORTX must indemnify a director, former director or alternate director and his or her heirs and legal personal representatives against all eligible penalties to which such person is or may be liable, and XORTX must, after the final disposition of an eligible proceeding, pay the expenses actually and reasonably incurred by such person in respect of that proceeding. Each director and alternate director is deemed to have contracted with XORTX on the terms of the indemnity contained in XORTX's articles.

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Under XORTX's articles, and subject to the BCBCA, XORTX may agree to indemnify and may indemnify any person (including an eligible party). XORTX has not entered into indemnity agreements with its directors and officers.

Pursuant to XORTX's articles, the failure of a director, alternate director or officer of XORTX to comply with the BCBCA or XORTX's articles does not invalidate any indemnity to which he or she is entitled under XORTX's articles.

Under XORTX's articles, XORTX may purchase and maintain insurance for the benefit of any person (or his or her heirs or legal personal representatives) who:

- is or was a director, alternate director, officer, employee or agent of XORTX;
- is or was a director, alternate director, officer, employee or agent of another corporation at a time when such corporation is or was an affiliate of XORTX;
- at XORTX's request, is or was, a director, alternate director, officer, employee or agent of a corporation or of a partnership, trust, joint venture or other unincorporated entity; or
- at XORTX's request, holds or held a position equivalent to that of, a director, alternate director or officer of a partnership, trust, joint venture or other unincorporated entity,

against any liability incurred by him or her as a director, alternate director, officer, employee or agent or person who holds or held such equivalent position.

XORTX maintains directors' and officers' liability insurance which insures directors and officers for losses as a result of claims against the directors and officers of XORTX in their capacity as directors and officers.

At present, we are not aware of any pending or threatened litigation or proceeding involving any of our directors, officers, employees or agents in which indemnification would be required or permitted.

Item 7. Recent Sales of Unregistered Securities

Set forth below is information regarding all securities issued by XORTX without registration under the Securities Act during the past three years after giving effect to the Company's 2023 share consolidation on a 9:1 basis that took place in 2023. XORTX believes that each of such issuances was exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act, Rule 506(b) of Regulation D under the Securities Act, Rule 701 under the Securities Act and/or Regulation S under the Securities Act. No underwriter or underwriting discount or commission was involved in any of the transactions set forth in this Item 7.

Common Share and Warrant Issuances

- On February 15 and March 4, 2024, the Company closed two tranches of a non-brokered offering of 899,717 common share units at a price of CAD\$3 per common share unit for aggregate gross proceeds of CAD\$2,699,151. Each common share unit consisted of one common share and one warrant to purchase one common share at CAD\$4.50 per common share for a period of two years. The warrants were immediately exercisable, and may be exercised for two years from the date of issuance, provided, however that, if, the common shares on the TSXV trade at greater than CAD \$6.00 for 10 or more consecutive trading days, the warrants will be accelerated and the warrants will expire on the 30th business day following notice. In connection with the non-brokered offering, the Company paid finder's fees of CAD\$132,551, representing a 5% finder's fee on certain subscriptions to qualified finders. On March 25, 2024, 5,000 warrants were exercised at CAD\$4.50 for proceeds of CAD\$22,500. The Company used the net proceeds from the offering for working capital and general corporate purposes.
- On March 11, 2024, the Company announced an amendment to the terms of an aggregate of 1,101,433 outstanding common share purchase warrants, as follows:
 - In connection with 231,746 warrants issued pursuant to the private placement that closed on February 9, 2021 and which had an original exercise price of CAD \$42.26 per share (CAD \$0.40 per share, adjusted to reflect the 2021 and 2023 Share Consolidations), the Company intended to amend the exercise price from CAD \$42.26 to \$5.00.

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- In connection with 286,355 warrants issued pursuant to the prospectus offering that closed on October 15, 2021 and which had an original exercise price of \$42.93 per share (\$4.77 per share, adjusted to reflect the 2023 Share Consolidation), the Company intended to amend the exercise price from \$42.93 to \$5.00.
- In connection with 583,332 warrants issued pursuant to the prospectus offering that closed on October 7, 2022 and which had an original exercise price of \$10.98 per share (\$1.22 per share, adjusted to reflect the 2023 Share Consolidation), the Company intended to amend the exercise price from \$10.98 to \$5.00.

Pursuant to the policies of the TSXV the terms of the warrants, as amended, are subject to an acceleration expiry provision such that if for any ten consecutive trading dates (the “**Premium Trading Days**”) during the unexpired term of the warrants, the closing price of the Company’s shares on the TSXV exceeds \$6.50 (approximately CAD \$8.7562), the exercise period of the warrants would be reduced to 30 days, starting seven days after the last Premium Trading Day.

- On April 30, 2024, the Company announced that it received TSXV approval to amend the terms of 1,024,099 outstanding common share purchase warrants. The exercise price of the warrants was adjusted to USD \$5.00 per share, down from higher original prices, following a series of private placements in 2021 and 2022.
- On May 17, 2024, the Company announced that it received approval from the TSXV to amend the terms of 910,000 outstanding common share purchase warrants issued on October 15, 2021. The exercise price was reduced to USD \$5.00 per share, down from the previous adjusted price of USD \$42.93 per share following a 9:1 consolidation. This re-pricing completed a previously announced adjustment and included an acceleration provision.
- On October 18, 2024, the Company closed a registered direct offering and concurrent private placement for the purchase and sale of 810,810 common shares (or pre-funded warrants in lieu thereof). At closing, through the registered direct offering, the company sold: (i) 320,000 common shares at a price of \$1.85 per share. and (ii) 490,810 pre-funded warrants at a price of \$1.8499 per pre-funded unit, with each pre-funded unit consisting of one pre-funded warrant to purchase one common share. The pre-funded warrants have an exercise price of \$0.00001 per share, and will terminate once exercised in full. As at the date of this registration statement, all such pre-funded warrants have been exercised. In addition, through the concurrent private placement, the Company sold 810,810 common share purchase warrants, with an exercise price of \$2.18 per share, exercisable immediately upon issuance with a term of five years from the date of issuance. Aggregate gross proceeds amounted to \$1,499,993. A.G.P./Alliance Global Partners acted as placement agent for the offering. The Company used the net proceeds from the offering for working capital and general corporate purposes.
- On July 21, 2025, the Company closed a non-brokered private placement of 1,267,123 units at a price of \$0.73 per unit for aggregate gross proceeds of \$925,000. Each unit consisted of one common share and one warrant to purchase one common share at \$1.20 for a period of five years; provided, however that, if, the common shares on the TSXV trade at greater than CAD \$2.00 for 10 or more consecutive trading days, the warrants will be accelerated and the warrants will expire on the 30th business day following notice. In connection with the non-brokered offering, the Company paid finder’s fees of \$12,264 and issued 16,800 finder’s warrants exercisable on the same terms of the warrants comprising the units, representing a 7% finder’s fee on certain subscriptions to qualified finders.

Stock Option Grants

- Since July 1, 2022, we have granted our employees, consultants and advisors options to purchase an aggregate of 69,038 options to acquire common shares under our equity compensation plans at exercise prices ranging from CAD\$1.75 to CAD\$12.42 per share.

Other than as otherwise noted above, none of the foregoing transactions involved any underwriters, underwriting discounts or commissions or any public offering. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

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Item 8. Exhibits and Financial Statement Schedules

The exhibits listed in the exhibits index, appearing elsewhere in this Registration Statement, have been filed as part of this Registration Statement.

All schedules have been omitted because they are not required, are not applicable or the information is otherwise set forth in the financial statements and related notes thereto.

- 1.1* Form of Placement Agency Agreement
- 3.1 Articles and Notice of Articles of the Company (incorporated by reference to Exhibit 3.1 to the Company's Draft Registration Statement on Form F-1 filed on May 26, 2021)
- 4.1* Form of Pre-Funded Warrant
- 4.2* Form of Common Warrant
- 4.3* Form of Warrant Agent Agreement
- 5.1* Opinion of Dentons Canada LLP
- 10.1# Employment Agreement, dated November 1, 2021, by and between the Company and Allen Davidoff (incorporated by reference to Exhibit 4.2 to the Company's Annual Report on Form 20-F filed on May 12, 2025)
- 10.4† Master Service and Technology Agreement, dated February 25, 2019, by and between the Company and Prevail InfoWorks, Inc. (incorporated by reference to Exhibit 10.6 to the Company's Draft Registration Statement on Form F-1 filed on May 26, 2021)
- 10.5† Side Letter to Master Service and Technology Agreement, dated February 24, 2020, by and between the Company and Prevail InfoWorks, Inc. (incorporated by reference to Exhibit 10.7 to the Company's Draft Registration Statement on Form F-1 filed on May 26, 2021)
- 10.7† Standard Exclusive License Agreement with Know How dated effective as of June 23, 2014, by and between the Company and the University of Florida Research Foundation, Inc. (incorporated by reference to Exhibit 10.11 to the Company's Registration Statement on Form F-1 Filed on August 12, 2021)
- 10.9# Consulting Amending Agreement, dated as of January 27, 2022, by and between the Company and Stephen Haworth (incorporated by reference to Exhibit 4.26 to the Company's Form 20-F filed May 3, 2022)
- 10.10† Patent Rights Purchase Agreement, dated effective as of December 5, 2012, by and between Dr. Richard Johnson, Dr. Takahiko Nakagawa, and Revascor Inc. (incorporated by reference to Exhibit 10.13 to the Company's Registration Statement on Form F-1 filed on August 12, 2021)
- 10.12 Form of Warrant Agency Agreement with Continental Stock Transfer & Trust Company, as Warrant Agent (incorporated by reference to Exhibit 10.14 to the Company's Amendment No. 1 to the Registration Statement on Form F-1 filed on September 16, 2021)
- 10.15# Stock Option Plan (incorporated by reference as Schedule B to Exhibit 99.2 to the Company's Form 6-K filed on November 23, 2021.)
- 10.19† Sponsored Research Agreement dated May 27, 2021 between the Regents of the University of Colorado and the Company (incorporated by reference to Exhibit 4.19 to the Company's Form 20-F filed May 3, 2022)
- 10.21 At-The-Market Offering Agreement dated November 29, 2023 between the Company and H.C. Wainwright & Co., LLC (incorporated by reference to Exhibit 10.1 to the Company's Form 6-K furnished November 30, 2023)
- 10.25† Amended and Restated Consulting Agreement between the Company and Stacy Evans, dated May 1, 2024 (incorporated by reference to Exhibit 4.31 to the Company's Form 20-F filed May 10, 2024)
- 10.26# Consulting Agreement, dated as of December 16, 2024 between the Company and Michael Bumby (incorporated by reference to Exhibit 4.32 of the Company's Annual Report on Form 20-F filed on May 12, 2025)

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21.1	Subsidiaries of the Company (incorporated by reference to Exhibit 21.1 to the Company's Draft Registration Statement on Form F-1 filed on May 26, 2021)
23.1*	Consent of independent registered public accounting firm, Davidson & Company LLP (PCAOB ID: 731)
23.2*	Consent of independent registered public accounting firm, Smythe LLP (PCAOB ID: 995)
23.3*	Consent of Dentons Canada LLP (included in Exhibit 5.1)
24.1*	Powers of Attorney (included on signature page to the registration statement)
107*	Filing Fee Table

* To be filed by amendment.

Indicates management contract or compensatory plan.

† Certain information in this exhibit has been excluded from the version of this document filed as an exhibit because it is both not material and the type of information that the Company treats as private or confidential

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Item 9. Undertakings

The undersigned hereby undertakes:

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

i. To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

ii. To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Filing Fee Tables," or "Calculation of Registration Fee" table, as applicable, in the effective registration statement;

iii. To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A. of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Act need not be furnished, provided that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to registration statements on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Act or Rule 3-19 of this chapter if such financial statements and information are contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Form F-3.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

i. If the registrant is relying on Rule 430B:

A. Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

B. Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after

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effectiveness of the date of the first contract or sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

ii. If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell securities to such purchaser:

- i. Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- ii. Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- iii. The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- iv. Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the U.S. Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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(c) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-1 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Calgary, Province of Alberta, Canada, on _____, 2025.

XORTX Therapeutics Inc.

By: _____
Name: Allen Davidoff
Title: President and Chief Executive Officer

POWERS OF ATTORNEY

Each person whose signature appears below constitutes and appoints each of Allen Davidoff, Michael Bumby and Charlotte May as his/her true and lawful attorney-in-fact and agent, each acting alone, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement and to sign any related registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, each action alone, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form F-1 has been signed by the following persons in the capacities set forth below on _____, 2025.

<u>Signatures</u>	<u>Title</u>
_____	President and Chief Executive Officer and Director (Principal Executive Officer)
Allen Davidoff	
_____	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
Michael Bumby	
_____	Director
William Farley	
_____	Non-Executive Chair of the Board
Anthony Giovinazzo	
_____	Director
Patrick Treanor	
_____	Director
Abigail L. Jenkins	
_____	Director
Raymond Pratt	
_____	Director
Paul Van Damme	

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AUTHORIZED REPRESENTATIVE

Pursuant to the requirements of the Securities Act of 1933, as amended, the undersigned certifies that it is the duly authorized United States representative of the registrant and has duly caused this Registration Statement on Form F-1 to be signed by the undersigned, thereunto duly authorized, on _____, 2025.

PUGLISI & ASSOCIATES

By: _____
Name: Donald J. Puglisi
Title: Managing Director