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XORTX Files New PCT Patent to Treat and Protect Individuals Most at Risk to Severe Viral Infection

Compositions and Methods for Enhancing Anti-Viral Therapies

CALGARY, Alberta, March 23, 2022 (GLOBE NEWSWIRE) -- XORTX Therapeutics Inc. ("XORTX" or the "**Company**") (NASDAQ: XRTX | TSXV: XRTX | Frankfurt: ANU), a pharmaceutical therapeutics company focused on developing innovative therapies to treat progressive kidney disease, with late-stage clinical programs, announces the submission of a Patent Cooperation Treaty (PCT) patent application seeking international patent protection for the patent entitled "**Compositions and Methods for Enhancing Anti-Viral Therapies**".

This patent is based on retrospective clinical data from XORTX scientific partners suggesting that an important therapeutic opportunity lies with addressing aberrant purine metabolism combined with hyperuricemia in patients most at risk to severe COVID-19 outcome. Since the advent of COVID-19 and during 2020, accumulating evidence suggests that individuals most at risk for more severe health consequences fall within a group that includes individuals with obesity, hypertension, metabolic syndrome, insulin resistance, pre-diabetes, diabetes or chronic kidney disease. These individuals have a higher incidence of hyperuricemia and endothelial dysfunction. Low grade systemic inflammation associated with these disease states and pre-existing vascular injury may suppress an individual's ability to respond with a sufficiently robust response to fight infection and leaves the individual more prone to excessive pro-inflammatory and pro-coagulative state. This new patent filing proposes compositions of xanthine oxidase inhibitors, uric acid lowering agents and/or anti-viral agents alone or in combination, and methods for enhancing anti-viral therapies for the treatment of individuals most at risk.

Recent peer reviewed publications suggest that individuals with hyperuricemia appear to have an increased susceptibility to develop more severe sepsis associated with COVID-19 infection. Recent studies of Coronavirus infections show that SARS and MERS and specifically COVID-19 can be frequently accompanied by pneumonia, acute kidney injury, proteinuria and hematuria^{1,2}. Viral load during infection has been reported to be associated with more severe symptoms.³ Acute kidney injury ("AKI") has been identified as an independent risk factor for patients' in-hospital mortality due to COVID-19 as well as other Coronavirus infections². Associated with modest to severe COVID-19 infection is an increased risk of a hyper-inflammatory state, increased pro-coagulative state and bacterial infection - each can contribute to acute organ injury, and death. A higher incidence of bacterial or fungal infection is also associated with high mortality.⁴ Recent study results suggest that uric acid lowering can inhibit SARS-CoV-2 replication a finding that supports the clinical use of uric acid lowering agents to control SARS-CoV-2 infection in humans.⁵

The Company is not making any express or implied claims that it has the ability to eliminate, cure or contain the COVID-19 coronavirus at this time.

About XORTX Therapeutics Inc.

XORTX Therapeutics Inc. is a pharmaceutical therapeutics company with clinically advanced products in development – XRx-008 for Autosomal Dominant Polycystic Kidney Disease (ADPKD), XRx-101 for Coronavirus / COVID-19 infection and XRx-221 is a clinical stage program for Type 2 Diabetic Nephropathy (T2DN). The Company has strong intellectual property rights and established proof of concept through independent clinical studies. XORTX is working to advance its clinical development stage products that target xanthine oxidase to inhibit production of uric acid. At XORTX Therapeutics, we are dedicated to developing medications to improve the quality of life and future of patients. Additional information on XORTX Therapeutics is available at www.xortx.com.

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The TSX Venture Exchange and Nasdaq have neither approved nor disapproved the contents of this news release. No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained herein.

References:

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Forward Looking Statements

This press release may contain express or implied forward-looking statements pursuant to Canadian and U.S. Federal securities laws. These forward-looking statements and their implications are based on the current reasonable expectations of the management of XORTX only, and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in such forward-looking statements. Except as otherwise required by law, XORTX undertakes no obligation to publicly release

any revisions or updates to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. More detailed information about the risks and uncertainties affecting XORTX is contained in the Company's most recently filed Annual Information Form and the Management Discussion and Analysis for its most recent financial reporting period filed on the Company's SEDAR profile (www.sedar.com) and under the heading "Risk Factors" in XORTX's Registration Statement on Form F-1 filed with the Securities and Exchange Commission ("SEC") available on the SEC's website, www.sec.gov.



Source: XORTX Therapeutics Inc.