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

## *Compositions and Methods for Enhancing Anti-viral Therapies*

**CALGARY, AB / ACCESSWIRE / March 8, 2021/** XORTX Therapeutics Inc. ("XORTX" or the "Company") (CSE:XRX) (OTCQB:XRTXF), a biopharmaceutical company focused on developing innovative therapies to treat progressive kidney disease, with late-stage clinical programs, is pleased to announce the filing of a new provisional patent application entitled "Compositions and Methods for Enhancing Anti-Viral Therapies". This provisional patent was filed with the US Patent Office on Friday, March 5, 2021.

In addition, 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<sup>1,2</sup>. 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 infections<sup>2</sup>. Early reports suggested a lower incidence (between 3% to 9%) of AKI in those with COVID-19 infection<sup>2,3,4</sup>, however recent reports have shown a higher frequency of renal abnormalities. A study of 59 patients with COVID-19 found that 34% of patients developed massive albuminuria on the first day of admission and 63% developed proteinuria during their stay in hospital<sup>5</sup>. 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.

Dr. Allen Davidoff, President and CEO of XORTX stated, "This new patent filing builds upon new and novel observations made in 2020 and 2021 regarding COVID-19 infection and why some individuals are at much greater risk than others. This patent aligns with the view that COVID-19 is likely to become endemic<sup>6</sup> and the prediction that on a yearly basis millions of individuals worldwide will remain at risk. XORTX continues to focus on developing leading therapies to treat and protect individuals most susceptible to acute harm to a variety of body systems associated with viral and bacterial infection through our first-in-class programs."

The focus of the 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 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 and 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 and methods for enhancing anti-viral therapies for the treatment of individuals most at risk.

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.

#### References:

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2. Cheng, Y, Luo R., Wang K., Zhang M., Wang Z., Dong L., Li J, Yao Y., Ge S., Xu g., Kidney Impairment is associated with in-hospital deal of COVID-19 patients, medRxiv, March 04, 2020 <https://www.medrxiv.org/content/10.1101/2020.02.18.20023242v1>.
3. Wang D, Hu B, Hu C, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China. *JAMA*,2020,doi:10.1001/jama.2020.1585.
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5. Wu M, Guo J, et al. Caution on Kidney Dysfunctions of 2019-nCoV Patients. medRxiv preprint doi: <https://doi.org/10.1101/2020.02.08.20021212>.
6. Veldhoven M., Simas JP, Endemic SARS-CoV-2 will maintain post-pandemic immunity, *Nature Reviews Immunology*, January 2021.

#### About XORTX Therapeutics Inc.

XORTX Therapeutics Inc. is a biopharmaceutical company with three clinically advanced products in development - XR<sub>x</sub>-008 for Autosomal Dominant Polycystic Kidney Disease (ADPKD), XR<sub>x</sub>-101 for Coronavirus / COVID-19 infection and XR<sub>x</sub>-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](http://www.xortx.com).

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