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XORTX Shares Findings of New Diabetes Study Supporting Uric Acid as an Independent Risk Factor

● An Opportunity to Expand XORTX's Pipeline under Existing Patents ●

CALGARY, Alberta, March 25, 2019 (GLOBE NEWSWIRE) -- XORTX Therapeutics Inc. (**"XORTX"** or the "**Company**") (CSE: XRX; OTCQB: XRTXF), a biopharmaceutical company focused on developing innovative therapies to treat progressive kidney disease, is pleased to highlight a recent and impactful finding by Pilemann-Lyberg et al, in the American Diabetes Association Journal – Diabetes Care on March 19, 2019. The findings of this study of patients with type 1 diabetic nephropathy adds to the critical mass of seminal studies that demonstrate the harmful effects of blood uric acid (UA) levels in the upper range of normal or higher. This study also highlights the important point that individuals with diabetes have kidney function that is sensitive to UA levels in the high normal to high range. The key finding of the study is that "Uric Acid is an Independent Risk Factor for Decline in Kidney Function, Cardiovascular Event and Mortality in Patients with Type 1 Diabetes."

XORTX is a leading drug development company focused on developing therapies for progressive kidney disease. The Company owns and controls granted patents and patent applications that protect the use of (UA) lowering agents to treat diabetic nephropathy (DN), kidney disease and cardiovascular disease. XORTX's two lead UA lowering programs focus on the development of a proprietary oxypurinol formulation –XRx-008 - for autosomal dominant polycystic kidney disease (ADPKD) and a new generation of xanthine oxidoreductase inhibitor (XOR) for the treatment of type 2 diabetic nephropathy (T2DN).

This new study provides fundamental, statistically significant, evidence that in individuals with type 1 diabetic nephropathy (T1DN) a higher UA is associated with an increased risk of decline in kidney function. Moreover, UA in T1DN was associated with increased risk of cardiovascular death and increased mortality.

Type 1 diabetes (T1D) is an autoimmune disease with a strong genetic component.[1,2] It can occur at any age, but tends to develop in childhood,[3] so it has long been called 'juvenile diabetes'. T1D is characterized by destruction of pancreatic β-cells, culminating in absolute insulin deficiency.[4] As of 2014, an estimated 387 million people have diabetes worldwide,[5] of which T1D accounts for between 5% and 10%.[6] Diabetic complications continue to be a major cause of morbidity and mortality in persons with T1D.[7] Great efforts have been made to assess the incidence and prevalence of T1D. Unfortunately, the exact etiology and pathogenesis of T1D is still unknown.

Dr. Allen Davidoff, CEO of XORTX stated, *"This important set of findings in patients with*

T1DN confirms the potentially impactful role uric acid has in the decline of kidney function and health. This validation of the role of uric acid suggests an opportunity to expand the Company's pipeline in a new direction. In agreement with previous studies in chronic kidney disease - polycystic kidney disease[9], type 2 diabetic nephropathy[10] and type 1 diabetic nephropathy[11] uric acid has been implicated as a potentially causative agent driving accelerated loss of filtering capacity. Currently there are few therapeutic options available for individuals with progressive kidney disease associated with T1DN. This paper strongly suggests the opportunity to protect kidney health and improve quality of life for individuals with progressive kidney disease due to T1DN who have increased serum uric acid concentrations."

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About XORTX Therapeutics Inc.

XORTX Therapeutics Inc. is a biopharmaceutical company focused on developing innovative therapies to treat progressive kidney disease. XORTX has lead programs to develop treatments for progressive kidney disease due to diabetes, diabetic nephropathy and polycystic kidney disease. Secondary programs focus on developing therapies for health consequences that accompany pre-diabetes, diabetes and cardiovascular disease. Additional information on XORTX Therapeutics is available at www.xortx.com.

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Source: XORTX Therapeutics Inc.