Ntrust-1 fact sheet for healthcare providers

Title of study	A Study of NKX019, a CD19 Chimeric Antigen Receptor Natural Killer (CAR NK) Cell Therapy, in Subjects with Autoimmune Disease
Background	Systemic lupus erythematosus (SLE) is a chronic systemic autoimmune disease with clinical manifestations that affect nearly every organ. Among the most significant manifestations of SLE is lupus nephritis (LN), which is a major risk factor for morbidity and mortality. Primary membranous nephropathy (pMN) is a rare autoimmune condition. It results in the immune system attacking the kidneys, damaging the filters that remove waste from the blood. If unsuccessfully managed, pMN can lead to long-term kidney damage, increased infection risk, blood clots and heart problems, and the need for dialysis or a kidney transplant.
About NKX019	Natural killer (NK) cells derived from the peripheral blood of healthy adult donors are expanded and modified to produce NKX019, which is then available for off-the-shelf, on-demand dosing. NKX019 exhibits approximately 10-fold greater cytotoxicity compared to non-engineered NK cells against CD19+ cell lines in vitro.[1] Unlike T cells, NK cells do not rely on expansion after administration for their activity and do not typically result in severe expansion-related toxicities. 1 Morisot N, Wadsworth S, David T, et al. Preclinical Evaluation of NKX019, a CD19-targeting CAR NK Cell. *J Immunother Cancer*. 2020 Nov 1;8:A140.
Study participants	To be eligible for this study, participants must meet key inclusion criteria, including: • 18 to 70 years old • Active biopsy-proven lupus nephritis Class III or Class IV with or without Class V using the 2018 International Society of Nephrology and Renal Pathology Society (ISN/RPS) or biopsy-confirmed evidence of pMN • Active renal disease at screening defined by spot Urine Protein-Creatinine Ratio (UPCR) ≥ 3.5 g/g or proteinuria ≥ 3.5 g/day on a 24-hour collection and ≤ 7 g/day by either measure • For LN: ◦ Refractory LN, defined as having received at least 2 prior therapies (immunosuppressant and corticosteroid or immunomodulatory agent and corticosteroid at therapeutic range for at least 90 days) with inadequate response ◦ Score of 10 or more points on the American College of Rheumatology (ACR) 2019 classification criteria for SLE • For pMN: ◦ Refractory or intolerant to at least 1 induction therapy for pMN (immunosuppressant and corticosteroid or immunomodulatory agent and corticosteroid) defined as not achieving a complete remission after 180 days or partial remission after 90 days ◦ Positive anti-PLA2R antibodies
Key objectives	• Assess safety and tolerability of NKX019, administered after lymphodepletion • Assess preliminary clinical activity of NKX019 • Characterize pharmacokinetics of NKX019 • Characterize immunogenicity of NKX019
Study periods	The Ntrust-1 study will consist of 4 periods for each participant as follows: • **Screening** – Participant eligibility determined over a period of up to 45 days • **Active Treatment** – Conditioning with lymphodepletion followed by NKX019 on Days 0, 3, and 7 • **Follow-Up** – Assessments approximately every 90 days through Year 2 • **Extended Follow-Up** – Yearly survival and safety survey (Years 2–15)

For more information, you and your patients can visit Ntrust1.com.

To refer a patient directly, please contact: