



Kyverna Therapeutics to Present New Data of KYV-101 in Lupus at European Congress of Rheumatology

May 24, 2023

Preclinical data presented for the first time demonstrated successful manufacture and functional activity of KYV-101 in the blood of patients with systemic lupus erythematosus (SLE), commonly known as lupus

Research conducted in partnership with University of Erlangen

Data to be presented in poster session and industry-sponsored symposium about CAR T-cell therapy in B-cell driven autoimmune diseases

EMERYVILLE, Calif., May 24, 2023 — Kyverna Therapeutics (“Kyverna”), a cell therapy company with the mission of engineering a new class of therapies for serious autoimmune diseases, today announced it will present new preclinical findings on KYV-101. KYV-101 is a novel anti-CD19 chimeric antigen receptor T-cell (CAR T) therapy designed to deplete B cells, including autoreactive B cells in autoimmune disease patients. The data will be presented at a poster session and at an industry-sponsored symposium at the 2023 European Congress of Rheumatology (EULAR), being held May 31-June 2, 2023, in Milan, Italy.

“These data demonstrated strong CAR-mediated activity in vitro of KYV-101 CAR T cells derived from patients with lupus, a key prerequisite for positive outcomes,” said Peter Maag, Ph.D., chief executive officer (CEO) of Kyverna.

The data, generated in collaboration with scientists at the Friedrich-Alexander University, Erlangen-Nürnberg, Germany, showed KYV-101 CAR T cells derived from patients with systemic lupus erythematosus (SLE), SLE with lupus nephritis (LN), or rheumatoid arthritis, demonstrated strong CAR-mediated and CD19-dependent activity against autologous B cells. Of note, SLE and SLE with LN-derived KYV-101 CAR T cells produced less cytokines in response to autologous B cells compared to KYV-101 CAR T cells derived from healthy donors.

Poster details

KYV-101, A Fully Human CD19 CAR T cell Generated from Autoimmune Patient Lymphocytes, Demonstrates CAR-Mediated and CD19-Dependent Activity Against Autologous B cells

Abstract Number: 6228

Poster Number: POS0007

Session: Wednesday Poster Session

Presenter: Dominic Borie, M.D., Ph.D., president of R&D at Kyverna Therapeutics

Date/Time: Thursday, June 1, 2023; 12:00 p.m. – 1:30 p.m. CEST

Kyverna Satellite Symposium

CAR T-Cell Therapy in B-Cell Driven Autoimmune Diseases

The company is hosting an industry-sponsored symposium featuring key thought leaders and senior leaders from Kyverna. The session will be part of the EULAR satellite symposia, and will take place on Friday, June 2, 2023, from 8:15 a.m. — 9:30 a.m. CEST.

The symposium will focus on understanding the role of B cells in autoimmune diseases and the rationale for pursuing deeper B-cell depletion through CAR T-cell therapy. There will be a review of the clinical data in the use of anti-CD19 CAR T-cell therapy in SLE and other autoimmune diseases. Speakers and panelists will also review lessons learned from CD19 CAR T therapy in oncology and how these lessons inform the development of KYV-101 for autoimmune diseases.

Presenters include:

- Georg Schett, M.D., vice president of research, chair of internal medicine III, University Hospital Erlangen, Friedrich-Alexander University, Germany
- Peter A. Merkel, M.D., MPH, chief, division of rheumatology, professor of medicine and professor of epidemiology in biostatistics and epidemiology, University of Pennsylvania
- David Jayne, M.D., professor of clinical autoimmunity, University of Cambridge, U.K., director of the Vasculitis and Lupus Service, Addenbrooke’s Hospital
- Carlotta Cacciatori, M.D., Centre de Référence des Maladies Auto-immunes Systémiques Rares d’Ile-de-France, Hôpital Saint Louis, France
- Peter Maag, Ph.D., CEO of Kyverna
- Dominic Borie, M.D., Ph.D., president of R&D at Kyverna

About Lupus Nephritis (LN)

Lupus nephritis (LN) is a serious complication of systemic lupus erythematosus (SLE), more commonly known as lupus. Approximately 40 percent of adults diagnosed with lupus eventually develop LN and 60 percent of LN patients will fail standard of care and approved treatments¹. Aside from modest efficacy, current treatments expose these young adults to the well-demonstrated detrimental consequences of chronic treatment with corticosteroids and other powerful immunosuppressants. Up to 10 percent of patients with LN and 40 percent with diffuse LN (class IV) will ultimately

develop kidney failure, requiring dialysis or a kidney transplant to stay alive².

About KYV-101

KYV-101 is an autologous version of a novel, fully human clinical-stage anti-CD19 chimeric antigen receptor T-cell (CAR T) construct with properties well suited for use in B cell-driven autoimmune diseases such as lupus nephritis and other B-cell driven autoimmune diseases. In a 20-patient Phase 1/2 study in oncology, expected anti-lymphoma activity was associated with a significant reduction of cytokines released that translated into a strong reduction of cytokine-driven side effects such as the rate of immune effector cells-associated neurotoxicity syndrome (ICANS)³. The fully human anti-CD19 CAR also translated into reduced immunogenicity that favorably impacted cell persistence at one month. Kyverna recognized that these properties singled out KYV-101 as a product ideally poised for use in autoimmune disease patients, and the company obtained exclusive, worldwide licenses from the National Institutes of Health (NIH) to use this CD19 construct in both autologous and allogeneic CAR T-cell therapies.

About Kyverna Therapeutics

Kyverna Therapeutics is a cell therapy company with the mission of engineering a new class of therapies for autoimmune and inflammatory diseases. The Kyverna therapeutic platform combines advanced T-cell engineering and synthetic biology technologies to suppress and eliminate the autoreactive immune cells at the origin of autoimmune and inflammatory diseases. Kyverna's pipeline includes next-generation chimeric antigen receptor T-cell (CAR T) therapies in both autologous and allogeneic formats with properties well suited for use in B cell-driven autoimmune diseases. By offering more than one mechanism for taming autoimmunity, Kyverna is positioned to act on its mission of transforming how autoimmune diseases are treated. For more information, please visit <https://kyvernatx.com>.

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1. E. Carter et al., Nature Reviews Rheumatology, 12, Oct. 2016, 605-620.
2. Adv Chronic Kidney Dis. 2019;26(5):313.
3. Brudno et al., Nature Medicine 2020; 26:270-280.