

Lys Therapeutics Receives \$5 Million Grant from The Michael J. Fox Foundation to Advance Innovative Immunotherapy for Parkinson's Disease

Renewed MJFF award strengthens Lys Therapeutics' position as a leader in developing transformative treatments for neurodegenerative diseases.

Lyon & Caen, France, September 22, 2025 – Lys Therapeutics, a French biotechnology company pioneering an innovative approach targeting the blood-brain barrier (BBB) to treat neurodegenerative and neurovascular diseases, today announces the renewed support and the grant award of **USD \$5 million** from **The Michael J. Fox Foundation for Parkinson's Research (MJFF)** to accelerate the clinical development of **LYS241**, its first-in-class monoclonal antibody for the treatment of **Parkinson's disease** and other neurodegenerative disorders.

This significant new funding, part of MJFF's **Therapeutic Pipeline Program**, will support the completion of preclinical development and the launch of **first-in-human clinical trials**, marking a major milestone in Lys Therapeutics' mission to bring transformative treatments to patients suffering from neurological diseases.

"We are honored by the continued trust of The Michael J. Fox Foundation. This grant is both a strong validation of the science behind LYS241 and a powerful catalyst for our development program. It enables us to move with confidence toward clinical evaluation, with the goal of offering patients a truly novel therapeutic option." said **Dr. Manuel Blanc**, CEO and co-founder of Lys Therapeutics.

A Breakthrough Mechanism with Pipeline-in-a-Drug Potential

LYS241 is a monoclonal antibody designed to neutralize the pathological mechanisms associated with BBB dysfunction, a central process in many neurological diseases. Impairment of the BBB promotes the entry of toxic molecules and inflammatory cells into the central nervous system, leading to neuroinflammation, excitotoxicity, and neuronal death. Specifically, LYS241 is designed to block the interaction between tissue plasminogen activator (tPA) and the NMDA receptor (NMDAr) in the vascular compartment — a key driver of **BBB dysfunction**, **neuroinflammation**, and **dopaminergic neuron degeneration** in Parkinson's disease.

Unlike conventional therapeutic approaches that must cross the BBB to reach their target, LYS241 works **from within the blood vessels**. By restoring vascular NMDA receptor function, it re-establishes BBB integrity, halts the infiltration of harmful immune cells into the brain, and interrupts a cascade of events leading to neurodegeneration, a hallmark of disease progression in Parkinson's and other neurological disorders. This approach **tackles a fundamental cause of disease progression** instead of limiting treatment to symptom control.

"Our collaborative work with Lys Therapeutics and INSERM in France has shown that the tPA–NMDAr interaction plays a central role in Parkinson's pathology. By blocking this mechanism, LYS241 targets a root cause of disease progression rather than simply managing symptoms — representing a true paradigm shift," said **Prof. Daniel A. Lawrence**, Department of Internal Medicine and Department of Molecular & Integrative Physiology at the University of Michigan, USA.

A Validated and Expanding Platform Across Neurological Diseases

The MJFF award comes as Lys Therapeutics advances its **“pipeline-in-a-drug” strategy** — developing LYS241 for multiple neurological diseases driven by BBB dysfunction and neuroinflammation. Beyond Parkinson’s disease, LYS241 has demonstrated potent disease-modifying effects in validated preclinical models of **multiple system atrophy, ischemic stroke, and multiple sclerosis**, underscoring its multi-indication potential and transformative impact.

These findings have been featured in **peer-reviewed publications**, showcased at **major international scientific congresses**, and recognized with substantial non-dilutive funding, including **previous MJFF support**, competitive public grants, and private investment.

Following the **positive Scientific Advice** from national drug agencies, Lys Therapeutics is now accelerating its regulatory studies to complete its dossier in preparation for clinical trial initiation. **The company is fully financed to progress through early-stage clinical development**, strengthened by **this MJFF grant** and a **significant equity capital** increase in 2024.

“The Michael J. Fox Foundation continues its pursuit toward our singular and urgent mission of delivering improved therapies and a cure for patients living with Parkinson’s disease,” said Dr. Jessica Tome Garcia, MJFF’s lead scientific program manager. “This work with Lys Therapeutics on a novel approach targeting neuroinflammation is an example of the field’s robust pipeline of new class treatments that goes beyond symptom management by targeting the underlying disease biology.”

About Parkinson’s Disease

Parkinson’s disease is a progressive neurodegenerative disorder affecting more than 10 million people worldwide. It is characterized by motor symptoms (tremor, bradykinesia, rigidity) and non-motor complications (cognitive decline, sleep disorders, mood disturbances). Despite available treatments, there is currently no cure or approved disease-modifying therapy.

About LYS241

LYS241 is a **fully humanized IgG1 monoclonal antibody** with an Fc-silent backbone, designed to neutralize key pathological mechanisms underlying **blood-brain barrier dysfunction**—a central driver of many neurological disorders. When the BBB is compromised, toxic molecules and inflammatory cells can infiltrate the central nervous system, triggering neuroinflammation, excitotoxicity, and ultimately neuronal death.

By restoring BBB integrity and protecting brain tissue, LYS241 addresses both acute and chronic neurological conditions, truly **embodying a pipeline-in-a-drug**. Its mechanism of action offers therapeutic benefits across multiple indications: in **ischemic stroke**, whether administered alone or alongside standard thrombolytic agents (alteplase or tenecteplase), LYS241 counteracts tPA-induced vascular injury, preserves BBB integrity, enhances reperfusion, and reduces the risk of hemorrhage and inflammation; in neurodegenerative diseases such as **Parkinson’s disease, multiple sclerosis, and other severe inflammatory disorders**, it holds strong potential to slow or halt disease progression. Lys Therapeutics is advancing an ambitious clinical development program to fully unlock the broad therapeutic potential of LYS241.

About Lys Therapeutics

First-in-class biotherapies against neurological diseases.

Lys Therapeutics is a biotechnology company developing **first-in-class monoclonal antibodies** to treat patients suffering from **neurodegenerative and neurovascular diseases** with high unmet medical needs. Its lead candidate, **LYS241**, is a **vascular-targeting immunotherapy** with a **unique mode of action** restoring BBB integrity by blocking the pathological interaction between **tPA and vascular NMDA receptors**. This mechanism is central to the pathogenesis of several major neurological disorders, including **Parkinson's disease, ischemic stroke, and multiple sclerosis**.

With operations in Lyon and Caen (France), and strategic collaborations with international research institutions, Lys Therapeutics is advancing a robust and versatile pipeline, supported by prestigious funding partners including **The Michael J. Fox Foundation, Bpifrance, and private investors**.

Lys Therapeutics' approach of targeting neuroinflammation to combat neurodegeneration represents a promising avenue in the search for effective treatments for these debilitating disorders.

More information on lystherapeutics.com

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