BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Lys Therapeutics raises over â?¬25M to advance neurovascular antibody

June 23, 2026 | News

The financing will support regulatory studies, manufacturing readiness and clinical entry for LYS241 across neurological indications.

Lys therapeutics

Lys Therapeutics has raised more than €25 million since its founding in 2021 to advance LYS241, its lead neurovascular antibody, toward clinical development.

The financing includes a grant of more than $5 million from The Michael J. Fox Foundation for Parkinson's Research, along with support from Bpifrance, France 2030 and private investors. The funding will support completion of regulatory studies, manufacturing readiness and clinical entry.

This is relevant because neurological disorders continue to face high clinical failure rates and limited disease-modifying options. Many programmes have focused heavily on neurons or protein aggregation, but vascular dysfunction, blood-brain barrier disruption, neuroinflammation and excitotoxicity are increasingly recognised as important contributors to disease progression.

LYS241 is a fully humanised, Fc-silent IgG1 monoclonal antibody designed to selectively block the pathological interaction between tissue plasminogen activator and NMDA receptors, while preserving physiological receptor function.

The company is targeting the tPA-NMDAr axis as a neurovascular mechanism involved in blood-brain barrier dysfunction, neuroinflammation and excitotoxicity. This gives Lys Therapeutics a differentiated biological approach across Parkinson's disease, synucleinopathies such as multiple system atrophy, and ischemic stroke.

The planned clinical programme is expected to include a biomarker-rich Phase 1a/1b design. It will involve healthy volunteer cohorts and indication-specific patient cohorts to assess safety, pharmacokinetics and early proof-of-biology signals across priority neurological indications.

This clinical design is important because neurology drug development often struggles when early studies do not establish whether a drug reaches the intended biological pathway or produces measurable target-related effects. Biomarker-rich development may help clarify whether LYS241 is influencing neurovascular biology before larger efficacy trials.

Recent preclinical data support the potential of LYS241 in Parkinson's disease by addressing blood-brain barrier dysfunction, neuroinflammation and neurodegenerative progression. Additional preclinical data also support relevance in synucleinopathies, including multiple system atrophy.

In ischemic stroke, Lys Therapeutics is developing LYS241 as a potential standalone or adjunctive therapy to standard reperfusion strategies. The aim is to improve reperfusion quality and reduce haemorrhagic and inflammatory complications, which remain important risks in acute stroke care.

The financing is commercially relevant because it positions the company to move from preclinical validation into clinical development. For early-stage biotech companies, the transition into human studies often requires manufacturing, regulatory, toxicology and biomarker infrastructure that can be difficult to fund.

Adoption and future partnering potential will depend on clinical safety, biomarker readouts, indication prioritisation and evidence that modulating the tPA-NMDAr axis can deliver meaningful disease-modifying effects. The breadth of potential indications creates opportunity, but also requires careful clinical strategy to avoid spreading development too thinly.

The development reflects growing interest in neurovascular biology as a therapeutic entry point for neurological disease. If LYS241 can show early proof-of-biology in humans, it could support a broader shift toward targeting the interface between vascular dysfunction, inflammation and neuronal injury in neurology drug development.