Lys therapeutics

PRESS RELEASE

Lys Therapeutics strengthens its Board of Directors with the appointment of two internationally renowned experts in clinical development and strategic financing

Anat Naschitz and Dr. Shibeshih Mitiku Belachew join the Board of Directors of Lys Therapeutics to support the company's scale-up, contributing to its international clinical and fundraising strategy.

Lyon & Caen, France, May 20, 2025 – Lys Therapeutics, a French biotechnology company pioneering an innovative approach targeting the blood-brain barrier to treat neurodegenerative and neurovascular diseases, today announces the appointment of two high-profile experts to its Board of Directors: Anat Naschitz and Dr. Shibeshih Mitiku Belachew. Their arrival reflects Lys Therapeutics' ambition to accelerate its international clinical development and expand its strategic network in a period of sustained growth.

A leading expert in international financing and business development: Anat Naschitz

Anat Naschitz is an investor and entrepreneur specializing in life sciences, with over 30 years of experience in biotechnology, pharmaceuticals, medical devices, and digital health. She has supported numerous innovative companies across all stages of development, both as a board member and through strategic investments.

She is the Managing Partner at **9vc**, a novel lifescience fund. Previously, she co-founded and co-led **OrbiMed Israel**, part of the global healthcare investment firm managing nearly $17 billion in assets, following an earlier role at **Apax Partners**. She also served as an Associate Partner at **McKinsey & Company** in London, advising executive teams of leading pharmaceutical companies.

Anat Naschitz currently serves on the boards of **Nanobiotix (Nasdaq: NBTX)**, which is developing clinical radiotherapies in partnership with **Johnson & Johnson**; **PolarisQB**, a U.S.-based company leveraging quantum computing for drug discovery; and **Profuse**, which is developing muscle biology technology, initially designed for cultured meat, to address muscle wasting conditions such as cachexia, sarcopenia, or GLP-1–induced atrophy.

She holds an **MBA from INSEAD** and an **LL.B. from Tel Aviv University**.

A clinical development and biomarker innovation expert: Shibeshih Mitiku Belachew

Dr. Shibeshih Mitiku Belachew is a neurologist and neuroscientist who currently serves as **Chief Medical Officer** at **Indivi**. He previously held senior leadership roles at **Biogen**, where he led early clinical development and personalized medicine programs in multiple sclerosis, and at **Roche**, where he was Global Disease Area Head in Digital Medicine.

Over the past decade, he has led multidisciplinary teams across R&D, medical affairs, and digital health in the biotech and techbio industries. He has integrated artificial intelligence (AI) and machine learning (ML) models into clinical trial design and execution, with a particular focus on identifying pathologically relevant biomarkers and understanding the biological underpinnings of neurodegenerative diseases to increase the likelihood of therapeutic success.

Dr. Belachew holds a **PhD** in Biomedical Sciences and a Medical Degree (**MD**) from the University of Liège in Belgium. He is also the author of numerous **scientific publications** and a co-inventor on several **patents**.

"The arrival of Anat and Shibeshih is a tremendous opportunity for Lys Therapeutics and the development of LYS241. Their backgrounds and unique experience with leading healthcare innovators will allow us to accelerate our clinical development and strengthen our international footprint. Their strategic and operational expertise will directly contribute to realizing our ambition: to establish LYS241, with its pipeline-in-a-drug potential, as a new class of treatment for severe neurological diseases." said Dr. Manuel Blanc, President and Co-founder of Lys Therapeutics.

" The expertise of Anat and Shibeshih significantly strengthens our governance at a critical time in our development. Their contributions bring us closer to our mission: to rapidly deliver innovative therapeutic solutions to patients suffering from neurological diseases such as Parkinson's disease, multiple sclerosis, and stroke—where neuroinflammation plays a key pathogenic role." added Michel Vounatsos, Chairman of the Board of Lys Therapeutics.

About LYS241

LYS241 is a fully humanized IgG1 monoclonal antibody with an Fc-silent backbone, designed to neutralize key pathological mechanisms associated with blood-brain barrier (BBB) dysfunction—a central process in many neurological disorders. Disruption of the BBB facilitates the entry of toxic molecules and inflammatory cells into the central nervous system, triggering neuroinflammation, excitotoxicity, and neuronal death.

In the context of **ischemic stroke**, LYS241 also mitigates the off-target side effects of standard thrombolytic agents (alteplase and tenecteplase) on vascular endothelial cells, while enhancing blood reperfusion. These adverse effects, ranging from BBB disruption to full rupture, can lead to hemorrhage and severe inflammation, significantly impairing patients' functional recovery.

By restoring BBB integrity and protecting brain tissue, LYS241 holds strong therapeutic potential for **neurodegenerative diseases** such as **multiple sclerosis**, other **severe demyelinating disorders**, and **Parkinson's disease**. For these indications, Lys Therapeutics is preparing an ambitious clinical development program.

About Lys Therapeutics

First-in-class biotherapies against neurological diseases.

Lys Therapeutics is a pioneering biotechnology company revolutionizing the treatment of patients with neurodegenerative or neurovascular diseases by targeting blood-brain barrier (BBB) dysfunctions.

In the pathophysiology of various neurological diseases such as **stroke, multiple sclerosis, and Parkinson's disease**, the hyperactivation of endothelial NMDA receptors (NMDAr) by tissue

plasminogen activator (tPA) which is overexpressed in these patients leads to the degradation of tight junctions and BBB dysfunction. This allows inflammatory cells and toxic molecules to migrate into the brain, triggering excitotoxicity and neuroinflammation, major contributors to neurodegeneration.

Lys Therapeutics' lead drug candidate, **LYS241**, is a **first-in-class monoclonal antibody** with a unique mechanism of action that effectively counteracts these pathological mechanisms. Specifically, LYS241 acts in blood vessels to prevent the binding of tPA to NMDAr without interfering with the physiological function of NMDAr. By inhibiting this interaction, NMDAr can function normally, and the activation of harmful downstream cellular pathways is halted. Tight junctions are restored, endothelial cells return to their healthy state, and BBB function is restored, protecting the brain from further neuro-inflammatory and neurodegenerative cascades.

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

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