Lys Therapeutics and the BB@C Institute to hold a scientific conference in support of World Stroke Day

"Innovate in Neurology to fight stroke"

Caen and Lyon, France, 22 October 2021 – Lys Therapeutics, a French biotech company developing innovative drugs to treat patients suffering from neurological diseases including stroke, along with the Blood and Brain @ Caen-Normandie Institute (BB@C), announced today they will host a scientific conference in support of World Stroke Day.

This event will take place next Wednesday, 27 October 2021, in the lead up to World Stroke Day, which occurs every year on October 29.

A stroke is characterized by the sudden stop of blood circulation in the brain, causing extensive damage to brain cells potentially resulting in partial paralysis or patient death.

17 million people experience a stroke every year in the world (of these, 31% are under 65 years of age) causing the death of 6 million people and making stroke the second cause of mortality all pathologies combined (first cause of mortality for women), and the second cause of dementia (sources WHO and Inserm).

Every year in France, more than 150 000 people have a stroke, with over 110 000 hospitalized patients and 30 000 deaths. Stroke also represent the first cause of acquired handicap in adults: over 500 000 French people live with serious consequences of a stroke (source French Ministry of Health).

The scientific conference "*Innovate in Neurology to fight stroke*" held on Wednesday, 27 October 2021 at the Health Training and Research center (*Pôle des Formations et de Recherche en Santé*) of the Université of Caen-Normandie, will bring together neurologists and key opinion leaders for presentations about recent innovations in the fight against cerebrovascular accidents; notably, Pr. Denis Vivien, Professor and Hospital Practitioner at Caen-Normandie University Hospital and Scientific Director of the BB@C Institute, Dr. Manuel Blanc, CEO of Lys Therapeutics, Dr. Maxime Gauberti, Neuroradiologist at Caen-Normandie University Hospital, Dr. Sara Martinez de Lizarrondo, Inserm Researcher, and Pr. Joan Montaner, leader of the "Biomarkers and Neuroprotection" group at the Vall d'Hebron Research Institute, Barcelona, Spain.

"In industrialized countries, 1 in 6 adults will have a stroke in their lifetime. Current therapeutic approaches aim to restore cerebral blood flow (CBF) as fast and efficiently as possible, with a good correlation between recanalization rates and functional outcomes. rtPA (recombinant tissue type Plasminogen Activator) drug treatment unfortunately yields an overall acute recanalization rate below 35%. This low efficacy is improved when rtPA is combined with endovascular thrombectomy (EVT), translating into a better outcome for patients at 90 days. Moreover, EVT enlarges the narrow therapeutic window of rtPA from 4.5 hours to up to 24 hours, opening avenues for the development of new drugs to protect the brain." explains Pr. Denis Vivien, Group Leader of the INSERM-Caen University « PhIND » unit, Professor and Hospital Practitioner at Caen-Normandy University Hospital and Scientific Director of the Blood and Brain @ Caen-Normandie Institute.

"Stroke is both a diagnostic and a therapeutic emergency. The role of emergency physicians, particularly in prehospital care, is essential. From the initial emergency phone call, the emergency regulator must activate the entire stroke response chain (first aid, intra-hospital emergency physician, neurologist and neuroradiologist) to have the patient transported to the nearest Neuro-Vascular Unit

Lys therapeutics

with the aim of getting the right patient to the right place at the right time" declares Dr. Richard Macrez, Head of the Emergency research department at Caen-Normandy University Hospital, who specifies "To date, drug or mechanical recanalization treatments still have significant limitations. The development of new drugs which can be administered before or upon arrival at the hospital emergency department, such as glunomab, is of major importance to answer unmet medical needs and significantly reduce the consequences of stroke for the patient."

Pr. Joan Montaner, leader of the "Biomarkers and Neuroprotection" group at the Vall d'Hebron Research Institute, Barcelona, Spain, and coordinator of the Andalusian Stroke Network, recently demonstrated the potential of new blood biomarkers for the diagnosis of ischemic stroke in the ambulance, using rapid tests, "This might be a revolution by allowing the administration of new neuroprotectant drugs outside of the hospital very close to stroke onset, optimizing the chances of recovery for stroke patients. Afterwards affected patients might be referred to the right hospital for complementary thrombectomy therapies with the information provided by the rapid blood test".

"There is room for new stroke treatments. Current therapies only provide partial solution: the whole majority of patients are left without any treatment, and the low number of patients who can benefit from rtPA still faces strong limitations, notably when the secondary effects of thrombolysis outweigh its expected benefit" explains Dr. Manuel Blanc, CEO of Lys Therapeutics. He adds "But research performed by Lys Therapeutics and our partners show that there is a pathway to improvement for patients after a stroke. These are the working axes we are pursuing to bring new therapeutic solution for the patients."

About Blood and Brain @ Caen-Normandie Institute (BB@C)

The Blood and Brain at Caen Normandie Institute (BB@C), founded by Inserm, the Caen Normandie University and the Caen Normandie University Hospital and recipient of grants from the Normandie regional council as well as private foundations, is internationally recognized for its forefront translational research activities. BB@C Institute brings together scientists from diverse backgrounds. Collectively, BB@C teams share 4 main objectives: 1) Improving research on neurovascular, neurological and psychiatric disorders, with a particular interest in the interactions between blood and brain cells, 2) Achieving a high level of expertise and knowledge in these domains, 3) Promoting innovations and partnerships to the benefit of patients, 4) Bringing together science and the general public in a climate of mutual trust. The different structures that constitute BB@C (laboratories, technical platforms, start-ups and CROs, etc.) combine complementary skills and expertise in a translational scientific approach serving the same objective: advancing research on neurovascular, neurological and psychiatric disorders to contribute to better human health. www.bb-c.fr

About Lys Therapeutics

Lys Therapeutics is a biotech company developing innovative drugs to treat patients suffering from neurological diseases, including Stroke, Multiple Sclerosis, as well as other neurodegenerative disorders. Our main drug is a first-in-class monoclonal antibody with a unique mechanism of action.

In the pathophysiology of neurological diseases such as stroke or multiple sclerosis, one protease called tissue plasminogen activator (tPA) triggers off-target toxicity via hyperactivation of NMDA receptors (NMDAr) causing deleterious increase of the permeability of the blood brain barrier and strong neuronal excitotoxicity.

By blocking the interaction between tPA and NMDA receptors Lys Therapeutics drug-candidate counteracts this tPA-dependent strong toxicity, hence preventing the induced neurotoxicity, neuroinflammation and blood brain barrier issues, without perturbing basal NMDAr functioning.



The clinical development of this biotherapy is of priority for Lys Therapeutics, as a game changer for patients suffering from neurological disorders with high unmet medical needs, for a potential major societal impact.

More information on <u>lystherapeutics.com</u>

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