

PRESS RELEASE

For immediate release

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Luxembourg's Parkinson's disease research excellence goes global

NCER-PD joins the prestigious Michael J. Fox Foundation's Parkinson's Progression Markers Initiative

The Luxembourg Institute of Health (LIH), the Centre Hospitalier de Luxembourg (CHL), the University's Luxembourg Centre for Systems Biomedicine (LCSB), the Laboratoire National de Santé (LNS) and Les Hôpitaux Robert Schuman (HRS) are proud to announce that the flagship National Centre of Excellence in Research on Parkinson's disease (NCER-PD) has become one of the 51 clinical sites participating in the Parkinson's Progression Markers Initiative (PPMI), a landmark observational clinical study sponsored by The Michael J. Fox Foundation for Parkinson's Research (MJFF).

Launched in 2010, PPMI is widely acknowledged as the most ambitious and impactful initiative in the history of research on Parkinson's disease (PD). It aims to develop biological markers of Parkinson's disease risk, onset and progression by establishing a large collection of clinical, imaging and biological samples in multiple cohorts, with the goal of advancing the prevention, diagnosis and treatment of this neurodegenerative disease. In a significant recent breakthrough, PPMI already made possible the development of a [novel biological test for Parkinson's disease](#) (alpha-synuclein seed amplification assay – α Syn-SAA), which demonstrates high diagnostic accuracy, differentiates molecular subtypes and detects disease before movement symptoms arise. In the next phase of research, PPMI will expand its study population to include individuals who have not yet developed Parkinson's movement symptoms, but who may be at increased risk of developing the disease.

In this context, NCER-PD now qualifies as one of 51 recruitment sites for PPMI worldwide and will contribute to PPMI with Luxembourg's unparalleled expertise in establishing diverse and deeply-characterised cohorts of participants. Indeed, thousands of study participants in Luxembourg have already supported NCER-PD, namely through the initial cohort of 1,600 PD patients and matching control volunteers from Luxembourg and the Greater Region, as well as through two new "at-risk" cohorts, including people with risk factors such as REM sleep behaviour disorder (RBD) and individuals carrying GBA1 gene mutations, in addition to participants from the Healthy Brain Ageing (HeBA) study.

"Although progress has been made in terms of improving PD diagnosis, we still need to further explore the role of a variety of factors in predicting the onset and progression of PD. To this end, the establishment of cohorts of individuals displaying known risk factors is a key element. We are therefore delighted to contribute to such a prestigious international clinical study with our knowledge and expertise in setting up such cohorts and in biomarker discovery and validation", explains Prof. Rejko Krüger, Director of Transversal Translational Medicine (TTM) at the LIH, head of the Translational Neuroscience group at the LCSB, Neurologist at CHL and coordinator of NCER-PD.

The NCER-PD consortium, led by the LIH in collaboration with the LCSB, the Centre Hospitalier de Luxembourg (CHL), Les Hôpitaux Robert Schuman (HRS) and the Laboratoire National de Santé (LNS), will be responsible for the recruitment of local participants - including both individuals living with PD and people at risk of developing it - at the Parkinson Research Clinic in the framework of the recently

established Luxembourg Clinical and Translational Research Centre (LCTR- *Fuerschungsklinik Lëtzebuerg*). Participant enrolment at the Luxembourg PPMI site began in April and is expected to last until December 2026, aiming to recruit at least 50 individuals. The first Luxembourgish participants are currently undergoing the screening process for recruitment. This includes individuals older than 60 years with risk factors such as decreased sense of smell (hyposmia), first-degree family member with PD, genetic mutations in the LRRK2 and/or GBA genes, or a diagnosis of REM sleep behaviour disorder. Additional follow-up visits will be planned for included participants.

“We are extremely grateful to The Michael J. Fox Foundation for the unique opportunity to join such a pioneering international study, and we look forward to collaborating within this global initiative on excellence in the field of Parkinson’s disease. I would also like to renew our gratitude to all our current and prospective study participants for tangibly helping us in the ongoing fight against this neurodegenerative disease”, adds Prof Krüger.

“Bringing in the power of community to expand our understanding of Parkinson’s biology and the lived experience of patients is how the Foundation has enabled today’s latest scientific breakthroughs,” said MJFF Chief Scientific Officer Mark Frasier, PhD. *“Through the support of patients, loved ones, supporters and study leaders worldwide, PPMI has transformed everything we know about how the disease starts and changes over time. With the expansion of PPMI sites worldwide, including our friends at Luxembourg’s major research institutes, we’re poised to keep critical momentum moving forward in the biological era of Parkinson’s research.”*

Funding and collaborations

This collaboration was made possible by the funding received from the Luxembourg National Research Fund (FNR) to establish the National Centre of Excellence in Research on Parkinson’s Disease (NCER-PD).

About the Luxembourg Institute of Health (LIH)

The Luxembourg Institute of Health (LIH) is a public biomedical research organisation focused on precision health and invested in becoming a leading reference in Europe for the translation of scientific excellence into meaningful benefits for patients.

The LIH places the patient at the heart of all its activities, driven by a collective obligation towards society to use knowledge and technology arising from research on patient derived data to have a direct impact on people’s health. Its dedicated teams of multidisciplinary researchers strive for excellence, generating relevant knowledge linked to immune related diseases and cancer.

The institute embraces collaborations, disruptive technology and process innovation as unique opportunities to improve the application of diagnostics and therapeutics with the long-term goal of preventing disease.

About the LCSB:

The LCSB is an interdisciplinary research centre at the University of Luxembourg. Its 250 staff members combine their expertise in a broad spectrum of disciplines - from computational biology to clinical and experimental neuroscience – to study the brain and its diseases. Research at the LCSB focuses on neurodegenerative disorders such as Alzheimer’s or Parkinson’s. Collaboration between biologists, medical and computer scientists, physicists, engineers as well as mathematicians offers new insights into complex biological mechanisms and disease processes, with the aim of developing new tools for diagnostics, prevention and therapy.

The LCSB has established strategic partnerships with scientific partners worldwide and with all major biomedical research units in Luxembourg. The centre also carries out collaborative projects with hospitals and research-oriented companies, accelerating the translation of fundamental research results into clinical applications, for the benefit of patients.

About the Centre Hospitalier de Luxembourg

A state-of-the-art hospital with 581 beds and a national reference centre for many disciplines, the Centre Hospitalier de Luxembourg (CHL) provides innovative diagnostic and treatment services that meet internationally recognised quality standards accredited by the Joint Commission International (JCI), as well as a teaching and research mission as a public institution. www.chl.lu

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