



**Dr Luc BUÉE**

Luc Buée is Directeur de Recherche au CNRS, Director of the Lille Neuroscience & Cognition research centre and Head of the Inserm laboratory «Alzheimer & Tauopathies» at the University of Lille. Located on the Lille hospital campus, his laboratory belongs to the Lille Centre of Excellence in Neurodegenerative disorders (LiCEND) and is also part of the LabEx DISTALZ (National consortium on Alzheimer's disease).

Luc Buée has worked on Alzheimer's disease and related disorders for more than thirty years. In the late 80s, he started his work on Alzheimer's disease with a PhD training at Mount Sinai Medical Center, Department of Geriatrics, NY, USA. He made some pioneering neuropathological observations on microvasculature abnormalities in neurodegenerative disorders. He was involved in the initial biochemical characterization of tau aggregates among neurodegenerative disorders (Tauopathies barcode). He has then developed experimental models to better understand the role of post-translational modifications in tau aggregation and tau secretion. Such experimental models are now widely used to identify biomarkers and to evaluate therapeutic strategies in tauopathies (immunotherapy, small molecules, non-drug therapy...).

Since October 2019, he is the President of the French Society for Neuroscience (Société des Neurosciences).

## Master of Biology and Health Lectures

### Abstract from the Neuroscience Conference Thursday, February 4, 2021

#### Research in Neuroscience : from the brain-machine interface to mental health

Neuroscience research in Lille is developed on the different sites of our university: CHU, Cité Scientifique, Institut Pasteur de Lille (IPL) and Pont de Bois. While the CHU campus brings together research teams with a significant medical component, the other sites also have their own specificities allowing translational research such as artificial intelligence and brain-machine interfaces at the Cité Scientifique, Genetics and Public Health at the IPL or human and social sciences at Pont de Bois.

Neuroscience, a very transversal discipline, is an opportunity to associate medical activity and research. Even if psychiatry and neurology separated in 1968, these medical disciplines belong to the neuroscience field and benefit from the same progress. As you have seen, the prefix neuro- is everywhere and so do neuroscience: clinical neuroscience, computational neuroscience, neurobiology, neurobehavioural, neuroeducation, neuroendocrinology, neuroethics, neurofeedback, neuroimaging, neuroimmunology, neurology, neuromarketing, neuropathology, neuroeducation, neuropharmacology, neuropsychology, neuroradiology, neurorobotics, neurosexuality, neurosocial, neurostimulation, neuroticism...

Through a few examples, we will explore Neuroscience

- Seeing the brain, understanding its functioning and modifying it (functional explorations or pharmacology)
- Understanding molecular, cellular and extrinsic actors responsible for neurological diseases in order to identify diagnostic and therapeutic targets.
- Understanding the links between chronic pathologies (Autoimmunity, Cancer, Diabetes, hypertension, IBD, Obesity, etc.) and neurological diseases.
- Towards a neuro-society?

**See you on February 4, 2021 - 6:15 pm**