PhD position

Treating neurodegenerative disorders with light: Development of protocols and devices to deliver near-infrared light and explore the therapeutic potential of photobiomodulation in animal models of neurodegeneration

A PhD position in Neurosciences/Neurodegeneration is available immediately in the Laboratory of Chemical Molecular Biology of Neurodegeneration (http://lashuel-lab.epfl.ch) at the Swiss Federal Institute of Technology in Lausanne (EPFL), Switzerland (www.epfl.ch).

The qualified candidate will work on a project to investigate the therapeutic potential of photobiomodulation (PBM) in models of neurodegenerative disease. A vast body of evidence, including work from our group (Oueslati et al., 2015), suggests great potential of such approaches to counteract neurodegenerative processes in Parkinson’s disease. The mechanisms, however, are still obscure, although activation and protection of mitochondrial function appear to be at their core. The available protocols require further optimization to explore and realize the full potential of photobiomodulation.

In this highly collaborative and interdisciplinary project, we will test devices developed by our collaborators within the EPFL (the group of Prof. Renaud) for the delivery of light treatments and simultaneous extracellular fluid sampling. The qualified candidate will take over experimentation in animal and primary neuronal models of neurodegeneration.

We are looking for a highly motivated and enthusiastic person having finished or about to finish a Master’s degree and intending to obtain a Ph.D. in Neurosciences. Very good writing, communication skills and team spirit are important. Prior experience in one or more of the following is highly recommended, but not required: stereotactic surgery, behavioral testing of rodents, cell biological methods, investigation of energy metabolism, histological and/or biochemical techniques.

The qualified candidate will benefit from working in a very dynamic and multidisciplinary group in a highly collaborative and stimulating environment and will have access to state of the art laboratories and core-facilities and a competitive salary. For more information about our group, please visit our websites and review our recent publications at:

The Lashuel Laboratory: http://lashuel-lab.epfl.ch/
The Renaud Laboratory: https://www.epfl.ch/labs/lmis4/
Brain Mind Institute: https://sv.epfl.ch/BMI
School of Life Sciences: http://sv.epfl.ch
Platforms and Core Facilities: http://sv.epfl.ch/platforms

Interested applicants should submit a letter of interest, curriculum vitae and the names and addresses of three references to Ms. Marie Rodriguez marie.rodriguez@epfl.ch EPFL SV BMI LMNN, AI 2149 Station 19, CH-1015 Lausanne