Postdoctoral Researcher (f/m/d) in Cellular Neuroscience

The Interdisciplinary Institute for Neuroscience of the Bordeaux Neurocampus Department is a world-leading internationally oriented neuroscience research center committed to exploring synaptic and circuit mechanisms of brain function in physiological and in pathological conditions. The team **"Synaptic circuits of memory"** led by **Christophe Mulle** is looking for a **Postdoctoral Researcher (f/m/d) in Cellular Neuroscience to work on a preclinical project on Alzheimer's disease.**

The project is part of a European collaborative project which aims at addressing presymptomatic synaptic deficits in Alzheimer's disease. A major originality of the proposal is in the use of innovative human biological samples, including organotypic cortical cultures obtained from human surgical resections. The project will combine advanced techniques for synapse biology based on cell biology, gene targeting, superresolution microscopy and electrophysiology. The successful candidate will work independently on his/her project, but interact closely with the PI and collaborate with other team members, and will be supported in his project by technical assistants in molecular biology and gene targeting techniques.

The position is available from April 2022 and initially for 2 years.

More information on the research group can be found at https://www.iins.u-bordeaux.fr/MULLE

Requirements

- Enthusiasm for synaptic research and cellular mechanisms of neurodegenerative diseases.
- PhD in neuroscience or cell biology (or in the final stages of submitting the thesis)
- Prior experience with cellular imaging and/or in vitro electrophysiology techniques is an asset
- Collaborative mindset, good communication skills and language proficiency in English

We offer

- Freedom to independently develop a project focussing on the pathophysiology of Alzheimer's disease.
- Excellent scientific infrastructure with state-of-the-art research facilities
- International, collaborative environment through the JPND European project, with a strong focus on science and research
- Extensive scientific training and individual mentoring by the PI, as well as additional support for structured career development via the CNRS and the Bordeaux Neurocampus department
- Opportunities to engage in mentoring, and in participating in the Cajal Advanced Neuroscience training activities at the Bordeaux School of Neuroscience
- Employment, salary and social benefits are determined by the Centre National de la Recherche Scientifique.

Application

We are looking forward to your application consisting of a short cover letter stating your motivation and research interests, a CV as well as two references.

Please submit your application to Christophe Mulle christophe.mulle@u-bordeaux.fr.

Interviews will first be conducted via video conferencing, followed by a possible on-site visit to Bordeaux at a second stage. Applications will be evaluated on a rolling basis and considered until the position is filled.

Recent publications of the team on AD

- Jordà-Siquier, T., Petrel, M., Kouskoff, V., Smailovic, U., Cordelières, F., Frykman, S., Müller, U., Mulle, C., Barthet, G., 2022. *APP accumulates with presynaptic proteins around amyloid plaques: A role for presynaptic mechanisms in Alzheimer's disease? Alzheimers Dement*. doi:10.1002/alz.12546
- Barthet, G., Moreira-de-Sa, A., Zhang, P., Castanheira, J., Gorlewicz, A., Mulle, C., 2022. *Presenilin and APP regulate synaptic kainate receptors*. bioRxiv 2022.02.03.478926.
- Barthet, G., Mulle, C., 2020. *Presynaptic failure in Alzheimer's disease*. Prog Neurobiol 101801. doi:10.1016/j.pneurobio.2020.101801
- Barthet, G., Jordà-Siquier, T., Rumi-Masante, J., Bernadou, F., Müller, U., Mulle, C., 2018. *Presenilin- mediated cleavage of APP regulates synaptotagmin-7 and presynaptic plasticity*. Nature Communications 1–14.
- Viana da Silva, S., Zhang, P., Georg Haberl, M., Labrousse, V., Grosjean, N., Blanchet, C., Frick, A., Mulle, C., 2019. *Hippocampal mossy fibers synapses in CA3 pyramidal cells are altered at an early stage in a mouse model of Alzheimer's disease*. Journal of Neuroscience 2868–18–13
- Viana da Silva, S., Haberl, M.G., Zhang, P., Bethge, P., Lemos, C., Gonçalves, N., Gorlewicz, A., Malezieux, M., Gonçalves, F.Q., Grosjean, N., Blanchet, C., Frick, A., Nägerl, U.V., Cunha, R.A., Mulle, C. (2016). *Early synaptic deficits in the APP/PS1 mouse model of Alzheimer's disease involve neuronal adenosine A2A receptors*. Nature Communications 7, 11915.