



Do you want to contribute to top quality medical research?

Postdoctoral researcher in neuronal mechanisms of therapeutics for addiction

The research group of Pr M. Naassila (GRAP, Groupe de Recherche sur l'Alcool et les Pharmacodépendances, INSERM UMR 1247, University of Picardie Jules Verne, Amiens, France - <https://grap.u-picardie.fr/>), is looking for a highly motivated postdoctoral researcher to study the neuronal mechanisms of psilocybin, a psychedelic that has recently shown, promise in the treatment of drug addiction.

This research contributes to the national ANR translational project PAPAUD, including clinicians and preclinicians partners, which seeks to investigate the application of psychedelics in patients with alcohol use disorder, while elucidating their mechanisms of action (see our last publications on this topic: <https://doi.org/10.1126/sciadv.abh2399> ; <https://pubmed.ncbi.nlm.nih.gov/38554193/>). In this collaborative, the GRAP uses animal models of binge drinking and alcohol addiction to study the behavioral and neuronal mechanisms underlying alcohol use disorder in order to develop new therapeutic approaches, including now psilocybin.

Your mission

Alcohol use disorder is a psychiatric recurrent disease characterizes by repeated periods of abstinence and relapse because treatments presently available are not sufficiently effective. Recently, the family of psychedelics draw the attention of both the medical and scientific communities as a powerful tool to reduce alcohol use disorder or other psychiatric disease such as depression. However, there is a lack of knowledge regarding their mode of action at neuronal level and notably their effectiveness in modulating neuronal excitability and functional synaptic plasticity in relation to their known effects on structural plasticity on both the short- and the long-term. The research work will include *ex vivo* electrophysiology using state-of-the art technologies (patch-clamp, optogenetics, DREADDS) but also extracellular field recording in rodent brain slices containing either the nucleus accumbens or the hippocampus, in combination with immunohistochemistry technics and molecular biology. In addition, the candidate will have the opportunity to supervise Master's students.

Your Profile

Applications are invited from highly motivated individuals with a PhD in Neurosciences and a strong background in *ex vivo* electrophysiology (neuronal excitability, spontaneous synaptic transmission, transmembrane current recordings and analysis) and synaptic plasticity analysis (long-term potentiation and long-term depression). Previous experience with optogenetic, immunofluorescence or molecular biology is welcome. Experience from work on brain slices is mandatory. Successful candidates are

enthusiastic, responsible, and able to perform their own experiments and analysis. They can provide suggestions and support in experimental design and experimentation to other members of the group. It is considered as an advantage if you already have performed a 2 years pots-doc after your PhD.

What do we offer?

The GRAP offers a creative and inspiring environment with wide-ranging expertise from liver cell culture to behavioral procedure (self-operant administration), in vivo calcium-imaging, or fast-cyclic voltammetry in addition to neuroimaging technics. At the University Center for Health Research we conduct successful biomedical researches in different scientific areas from neurosciences to virology or blood cancer giving you the opportunity to exchange knowledge and experience with researchers working with a wide range of specialisms and methods.

Employment

The appointment will be for 2 years, 100% of full-time, and is placed at the University Center of Scientific Health Research (CURS in French) in the University hospital. This is a competitive salaried position and will be open until filled. Starting date: as soon as possible or as agreed

Location: Amiens, France

Application

An employment application must contain the following document in English or French:

- A complete resumé, including date of the thesis defense, title of the thesis, members of the thesis jury, previous academic positions, academic title, current position, academic distinctions and committee work. CV and links to 1-2 favored publications
- A summary of the current work (or thesis work if concerned) – no more than one page
- Cover letter detailing your interest in the position
- Contact details for 2-3 references
- The application is to be submitted to Prof Olivier Pierrefiche, Ph.D. at Olivier.pierrefiche@u-picardie.fr