



POST-DOC POSITION IN NEURAL CIRCUITS OF MOTOR DECISION-MAKING

Title project:

Integration of time and effort in the non-human primate cortico-basal ganglia circuits during foraging

Principal investigator:

David Thura, Inserm CRCN

The candidate will contribute to a project on Neural circuits of motor decision-making funded by an ANR grant (BasalCost, AAPG2022). By using a multidisciplinary approach that combines electrophysiology in awake monkey, neural manipulation during behavior and computational modeling, the candidate will investigate several areas of the macaque monkey cortico-basal ganglia circuit during reaching-based foraging. Especially, the program aims at revealing how the basal ganglia integrate effort and time information to produce a regulation signal influencing the cortical sensorimotor areas involved in arbitrating between exploration and exploitation choices and controlling movement vigor.

I am seeking candidatures of highly motivated, independent and enthusiastic individuals, with background in neuroscience and/or neuro-engineering. PhD in neuroscience, biology or related fields is required. Experience in monkey behavior/electrophysiology is not mandatory but preferable. Experience in programming languages for data analysis and computational modeling (e.g. Matlab) is appreciated as well.

The main responsibilities of the candidate will include:

- Training monkeys (*Macaca mulatta*) in behavioral tasks (decision-making, voluntary movements);
- Programming the behavioral tasks and software for data analysis;
- Recording of neuronal activities (single-unit and LFP recordings) and movement trajectories;
- The analysis and interpretation of the results (behavior, neuronal activity, etc.);
- Preparing scientific papers and presentations for scientific conferences.

The starting date is (no later than) September 2023

Salary depends on experience (Inserm salary index; e.g. 4 years for a junior post-doc).

Under my supervision, the candidate will work in the “ImpAct” team of the Lyon Neuroscience Research Center (CRNL) located in Bron, next to the city of Lyon (France). The CRNL integrates the multidisciplinary expertise of 380 members for a synergic approach of brain organization, cognitive functions and mental state, and the related-brain disorders. The ImpAct team has a full access to the various technical facilities of the Center, including a state-of-the-art animal facility for monkey electrophysiology and neuroimaging.

For more details about the project and position please contact David Thura: david.thura@inserm.fr – and/or check www.davidthura.com

Candidates should send a CV (including peer-reviewed publications), a motivation letter and contacts of two references to david.thura@inserm.fr

Review of applications will begin immediately and will continue until the position is filled.