

## Postdoc in Cognitive & Computational Neuroscience

Faculty / Department of Mathematics & Informatics, University of Barcelona  
Center for Brain & Cognition, Department of Technology and Communication, Pompeu Fabra University

### Mandate description

The Faculty of Mathematics & Informatics at the University of Barcelona invites applications for a postdoctoral fellow in Cognitive & Computational Neuroscience, to participate in a European Project aimed at the theoretical formalization of the neural dynamics of reward for decision-making. The project involves a European consortium of universities and research institutions (Pompeu Fabra University, CNRS, University of Leuven, La Sapienza University), within the Human Brain Project.

We seek an exceptional candidate to develop neural and behavioural data analyses and computational models with a focus on system-level, large ensemble neuronal dynamics. Candidates are expected to combine multi-electrode, multi-area neurophysiological data analyses, with sophisticated computational modelling of brain function, or alternatively, will use predominantly computational approaches to study how biologically realistic large-scale and recurrent neural network models simulate behavioural-level phenomena.

The Department of Mathematics & Informatics at the University of Barcelona offers a stimulating scientific environment, state of the art laboratory space and exceptional computational facilities (<http://mat.ub.edu>). Barcelona is a vibrant cultural city, which offers a rich academic environment, with five major universities. Barcelona also hosts an active and dynamic community of systems and computational neuroscience (<https://barccsyn.org/>). The candidates will have outstanding opportunities to interact and collaborate with other scientists at the University of Barcelona (<http://www.ub.edu/cvub/>) and the Pompeu Fabra University (<https://www.upf.edu/web/tcn/>). The University of Barcelona offers a competitive salary and a complete range of employee benefits

### Responsibilities

- The appointed candidate will be expected to carry out outstanding research, be proficient in the analysis of neural data, construct computational models, write scientific manuscripts and present at conferences.
- The candidate will collaborate closely with researchers in the group at the Faculty of Mathematics & Informatics, University of Barcelona, and at the Center for Brain & Cognition at the Pompeu Fabra University.
- The working language is English. The University organizes courses to facilitate the study of the local languages.

### Requirements

- The candidate needs to hold a PhD in computational neuroscience (or equivalent) and demonstrate significant research experience. She/he needs to show an exceptional track record in the field, including decision-making, neuro-physiological studies and computational approaches to the study of neural networks and the modelling of behaviour.
- We will prioritize candidates with a solid research track record and excellent writing and communication skills in English.

- The ability and interest of the candidate to work in a multidisciplinary team (mathematicians, biologists, engineers, bio-informaticians and clinicians) is mandatory.
- Financial support is provided by the European Commission in the context of the Human Brain Project.

APPLICATION: A full CV in pdf format and two reference letters should be sent to the following address: [ignasi.cos@ub.edu](mailto:ignasi.cos@ub.edu)

DEADLINE: The announcement will remain open until the selection committee finds an acceptable candidacy.

STARTING DATE: 1<sup>st</sup> October 2020