

Postdoctoral Position (ERC-StG “HIGHMEMORY”)

(Ref. 2301 - BUSQUETS)

The group of **Dr. Arnau Busquets Garcia** is seeking for a **Postdoctoral candidate** with strong interest in **Behavioral Neuroscience**. This is an excellent opportunity to join the project **HIGHMEMORY (Beyond classical conditioning: Hippocampal circuits in higher-order memory processes)**, a project aimed towards understanding complex conditioning processes in order to study how the brain encode and store previous experiences to guide future actions.

Description: The overall aim of **HIGHMEMORY** is to elucidate the brain mechanisms involved in higher-order conditioning in mice. Specifically, by using *in vivo* imaging and viral approaches combined with complex behavioral tasks, we will study how cortico-hippocampal neuronal projections participate in the modulation of complex associative learning and which is the impact of these complex cognitive processes in pathological states such as psychotic states. The applicant will be dedicated to perform fiber photometry recordings in mice and to apply them to several higher-order conditioning paradigms in combination with pharmacological, viral and optogenetic approaches.

Requirements: We seek outstanding individuals awarded with a PhD in disciplines such as Biology, Medicine, Pharmacy or similar. We are looking for highly motivated and organized candidates with good communication skills, initiative, creativity, capable of working in a group but also with a high degree of work autonomy and interest to form students.

Experience in **in vivo calcium imaging through fiber photometry in mice and in mouse stereotaxic procedures is essential**. In addition, **experience in calcium imaging analysis, computational skills to measure behavioral parameters in mice and/or optogenetic approaches** will be highly appreciated. Finally, any experience in **Python** will be also considered.

High quality publications will be highly considered. Good communication skills and proficiency in written and spoken English are also essential.

Research Center: The research will be carried out at the IMIM (<https://www.imim.es>), a multi-disciplinary research center which is located in the Barcelona Biomedical Research Park (<http://www.prbb.org>).

Starting Date and Term: The position is available and the starting date will be decided between the candidate(s) and the PI. It represents a contract for 2 years, with the possibility of extension. Salary will be consistent with the IMIM pay scales. This contract is part of a project that has been proposed for funding from the European Union's Horizon 2020 research and innovation program, under the **ERC-StG** program.

Applications: Applications should be sent directly to Dr. Arnau Busquets Garcia (abusquets@imim.es) including a CV and a motivation letter indicating in the subject **“HIGHMEMORY_POSTDOC”**. In addition, the name and email of a contacting professor/s or researcher/s that know the candidate should be provided. Pre-selected candidates will be invited for an interview and will have to prepare a presentation summarizing their previous research.