Postdoctoral Position  
(ERC-StG “HIGHMEMORY”)  
(REF. 2027 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 develop new behavioral paradigms using different sensory modalities in mice and to investigate the potential brain circuits involved in these behavioral responses.

**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 operant behavior, mouse cognitive tasks and training in mouse surgical and viral procedures is essential. 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 starting from February 2021 and 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_POSTDOC1". 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.

**Deadline:** December 1, 2020
Postdoctoral Position
(ERC-StG “HIGHMEMORY”)
(REF. 2028 BUSQUETS)

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The applicant will be dedicated to set up 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 in rodents and training in mouse surgical procedures is essential. In addition, experience in calcium imaging analysis and/or optogenetic approaches will be highly appreciated. High quality publications will be highly considered. Good communication skills and proficiency in written and spoken English are also essential.

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**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_POSTDOC2”. 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.

**Deadline:** December 1, 2020