

PhD Offer in the Laboratory of Molecular Physiology of the Synapse

Biomedical Research Institute Sant Pau (IIB Sant Pau), Barcelona

We are focused in understanding the organization and dynamics of the proteome of excitatory synapses. We want to unravel how synaptic proteome physiology orchestrates synaptic plasticity, ultimately contributing to cognition and behaviour. Furthermore, we pursue to understand how disruption of normal molecular synaptic physiology contributes to certain disorders, particularly cognitive disorders such as Intellectual Disability or Autism. As we are interested in understanding the functioning of the synaptic proteome as a whole we take advantage of a Systems Biology experimental approach, involving mass spectrometry-based proteomics and bioinformatics.

For more information on our research please visit our Lab-Web: <http://molecular-synapse.org>.

We are currently looking for a talented and highly motivated PhD student to work on a project dedicated to identify the molecular basis of a severe form of Intellectual Disability caused by the *SYNGAP1* gene.

We offer a four-year contract in line with the ‘Estatut del Personal Investigador en Formació’, starting September/October 2019.

Candidates should have completed their Master’s (or be about to finish it). They also should have an excellent CV. Previous research training and an ‘Expedient Academic’ of 8.5 or above will be highly valued.

Interested candidates please contact Àlex Bayés for a personal interview: abayesp@santpau.cat.

Recent Publications from our group:

Gou G et al. Syngap Splice Variants Display Heterogeneous Spatio-Temporal Expression And Subcellular Distribution In The Developing Mammalian Brain.

bioRxiv (<https://www.biorxiv.org/content/10.1101/681148v1>)

Soto D. et al. L-serine dietary supplement is associated with clinical improvement of loss-of-function GRIN2B-related paediatric encephalopathy. **Science Signaling**, Jun 18;12(586). pii: eaaw0936.

Koopmans F. et al. SynGO: an evidence-based, expert-curated knowledgebase for the synapse. **Neuron** 2019 May 22.

Lleó et al. Changes in synaptic proteins precede neurodegeneration markers in preclinical Alzheimer’s disease cerebrospinal fluid. **Molecular and Cellular Proteomics**. 2019 Mar;18(3):546-560.

Ramos-Vicente et al. Metazoan evolution of glutamate receptors reveals unreported phylogenetic groups and divergent lineage-specific events. **eLIFE** 2018 Nov 22;7.

Bayés À et al. Evolution of complexity in the zebrafish synapse proteome. **Nature Communications**. 2017 Mar 2;8:14613.