

Group name: Mecanismos transcripcionales y epigenéticos de la plasticidad neuronal

IP name: Angel L Barco Guerrero

Group web: <https://in.umh-csic.es/es/grupos/mecanismos-transcripcionales-y-epigeneticos-de-la-plasticidad-neuronal/>

Title of the MRP/TFM:

Impact of histone deacetylase inhibitors on transcriptional memory and engram size.

Summary of the Project:

Histone deacetylase inhibitors (HDACi) have been proposed as an effective treatment to ameliorate the cognitive deficits associated with different neurological disorders. The cellular and molecular mechanisms that underlie the beneficial and memory boosting effects of these drugs are still unknown. In our laboratory, we are interested in elucidating how HDACi can enhance memory in mice. For this, in this project proposal we would use different approaches, *in vivo* and *ex vivo*, to analyze the impact of HDACi on neuronal activity-driven transcription, plasticity processes and behavior.

Methods and technology involved in the MRP/TFM Project:

Mouse genetics, behavioral tests, hippocampal neuronal cultures, quantitative PCR, immunofluorescence and confocal microscopy.

Note that some of these methods require that the candidate have a valid certification to work with experimental animals. The training program will be adapted to the certification of the candidate.

Member/s of the lab who will act as tutor/co-tutor of the project (if different from the group IP): Dr. Beatriz del Blanco

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