

Group name: Asymmetric Division of Neural Stem Cells in Development and Tumorigenesis

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http://in.umh-csic.es/paginas_particulares/Carmena/team.html



Title of the MRP/TFM:

Functional Analysis of Novel Asymmetric Cell Division Regulators during Development and Tumorigenesis

Summary of the Project:

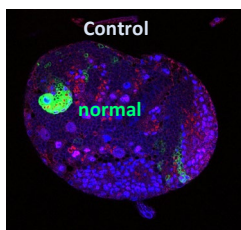
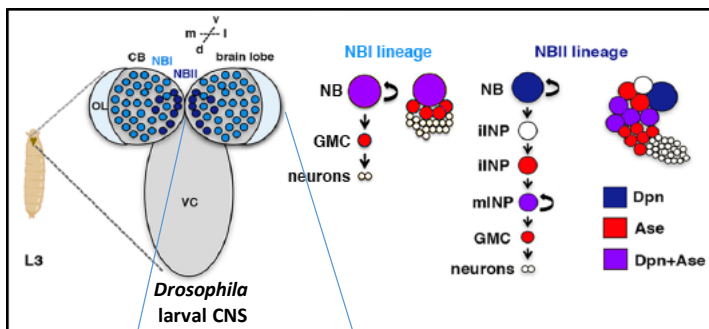
Asymmetric cell division (ACD) is a universal mechanism to generate cellular diversity during development and it is also a key process in the adult to regulate tissue homeostasis. Additionally, failures in ACD have been associated to tumor-like overgrowths. Hence, unraveling in depth the modulators of ACD is of great relevance because of their role in normal conditions, as well as for their potential function as tumor suppressor genes. **In this TFM project, it will be investigated the function of potential novel candidate genes in ACD and tumorigenesis that we have identified in an RNAi screen.** We will use as a model system the **neural stem cells (neuroblasts)** of the *Drosophila* larval brain.

Methods and technology involved in the MRP/TFM Project:

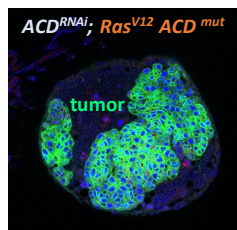
Drosophila genetics; Dissection of *Drosophila* larval brains; clonal analysis, FLP/FRT mitotic recombination system (including MARCM clones); the GAL4/UAS system and immunofluorescences and Confocal microscopy

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

Contact: acarmena@umh.es

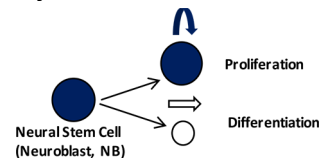


Brain lobe



Brain lobe

Asymmetric Cell Division



RNAi Screen (*LineX^{RNAi}; Ras^{V12} ACD^{mut}*):

Potential Novel ACD Regulators/ Tumor Suppressor Genes to Validate

