

APPLICATION FOR A GRANT FPU 2016

Hormonal signaling in insect oogenesis

INSECT REPRODUCTION LAB

Institute of Evolutionary Biology (CSIC-UPF)



Brief Summary

Oogenesis is a crucial process in the animal kingdom to ensure continuity of the species and, therefore, it needs to be finely regulated. A good model to study oogenesis is the insect ovary, especially the panoistic type, a relatively simple structure characterized by the absence of nurse cells accompanying the germ cell or oocyte.

In our group, we study insect oogenesis to identify the signals that determine the right time to initiate growth and maturation of the ovarian follicle, how this maturation is carried out and which changes occurred throughout evolution in the different insect ovary types.

The project proposed aims to identify which hormonal and cellular mechanisms regulates the maturation of ovarian follicles.

To do that the PhD student will study the three major insect hormonal pathways (20-hydroxyecdysone, juvenile hormone and insulin) in maturing ovarian follicles, studying the location of key markers of these pathways, quantifying their expression and analyzing their function using RNAi or CRISPR-Cas9, and determining the epistatic relationships between the different hormones and the pathways that transduce the signal into the cell (Hippo, Notch, EGFR).

Candidates should apply for a FPU2016 grant. See more information in

<http://www.mecd.gob.es/servicios-al-ciudadano-mecd/catalogo/general/educacion/998758/ficha/998758-2016.html>

The application will be open from 16 January to 3 February 2017.

Motivated and potentially competitive applicants should send, before 14 January, via e-mail, a short letter of interest and a CV to:

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