

PhD Fellowship: “Key transitions in embryogenesis of hemimetabolous insects. Juvenile hormone transcription factors & miRNAs”

Thesis supervisor: Prof Xavier Bellés

The PhD fellowship offered is associated to the project: “Key transitions in embryogenesis of a hemimetabolous insect. Juvenile hormone transcription factors and microRNAs” (CGL2015-64727-P, years: 2015-2018, IP: Xavier Belles), approved in the last edition of the Spanish Plan Estatal projects call.

The project aims at unveiling the conditions that regulate every key developmental transition during the embryo development of the cockroach *Blattella germanica*. Among these conditions we include changes in gene expression, the modulator role of miRNAs and, particularly, the role of the morphogenetic hormones, ecdysone and juvenile hormone. These changes will be firstly studied through comparisons of transcriptomes obtained for each key developmental stage. Then, predictions emerging from comparative transcriptomics, will be validated experimentally.

We seek a candidate to carry out the experimental work complementary to the bioinformatics analysis. The work would essentially consist in developing experiments of functional genomics, interfering a target gene or miRNA (presumably important, according to the comparative genomics analysis), and examining the phenotype to unveil their function and the epistatic relationships with connected genes and miRNAs.

The candidate should have a degree in Biology or similar, and a master (finished or in course), should be enthusiastically willing to do a doctoral thesis on this subject and have previous knowledge in molecular biology basic techniques. Fluent English both in spoken and written form is also required.

Interested candidates, please send a CV, an academic record and a letter explaining the motivations before the 30th of May of 2016. Expected starting date: September-October 2016.

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<http://molevol.cmima.csic.es/belles/index.html>