

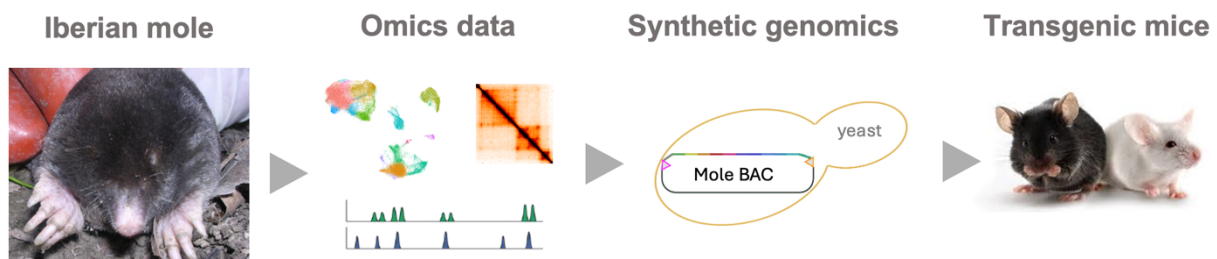
4 year – Predoctoral Contract Offer (*previous FPI*) on the AEI-funded project:

FUNCTIONAL GENOMICS OF MOLE FORELIMB ADAPTATION:

A SYNTHETIC BIOLOGY APPROACH

Our research group, **Gene Regulation & Evolution**, located at the Andalusian Center for Developmental Biology (CABD) in Seville, is looking for a highly motivated person to join us in investigating how genomic changes translate into developmental phenotypes during evolution.

Project: we aim to understanding how the **non-coding genome has evolved** to regulate gene expression in different tissues and organisms. Employing cutting-edge technologies such as **3D chromosome conformation** capture, **single-cell** techniques, and **epigenetic** approaches, we investigate gene regulation across different levels through inter-species comparative analyses. Our primary model organism is the **Iberian mole**, *Talpa occidentalis*, known for its highly specialized limbs that facilitate the digging of tunnels and the survival in underground habitats. By comparing mole limb development with that of the classical mammalian model, the mouse, we aim to elucidate the **evolutionary processes** shaping mole limb morphology. Importantly, we validate our research findings *in vivo* using **synthetic genomics** coupled with the generation of **transgenic mice**, establishing connections between changes in genome sequence and regulation with the emergence of specific traits.



Requirements: **Master's** degree (or equivalent) in biology, genetics, genomics, or a related field. Excellent written and oral communication skills in **English**. Ability to work independently and collaboratively in a team setting.

*The predoctoral hired here will carry out a **TRAINING PLAN** within the research project.*

How to Apply: Interested candidates should send a **cover letter** outlining their research interests and motivation, a detailed **CV**, and contact information for **2 references** to Francisca Martínez Real (fmarrea@upo.es).

We look forward to welcoming a passionate and dedicated individual to our team as we continue to push the boundaries of genomic evolution and developmental biology research.