Candidate for a Postdoctoral Juan de La Cierva

Logic of Genomic Systems Laboratory

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Limits on Phenotypic Prediction: Aging as complex Phenotype

Aging represents a multifaceted biological process shaped by numerous genetic factors and environmental stimuli. This prompts consideration about the existence of latent variables capable of simplifying this intricate phenomenon and aiding in the interpretation and prediction of the aging phenotype. Among these potential variables, energy emerges as a significant candidate. Our preliminary research in the laboratory has substantiated this hypothesis, leveraging genome-wide metabolic models [1]. Presently, we are in the process of establishing an experimental framework to investigate the impact of energy on aging in the nematode Caenorhabditis elegans. This endeavor involves the development of pertinent energy reporters and the implementation of an in-house tracking system for precise nematode navigation.

We are currently seeking a two-year postdoctoral researcher through the Juan de La Cierva program to contribute to the advancement of this project. We are particularly interested in candidates with a background in physics, mathematics, or engineering, who possess a keen interest in the development of quantitative experimental biology. Alternatively, we welcome applications from biologists or biotechnologists with expertise in C. elegans and a strong desire to apply a more quantitative approach to Biology. The overarching goal of our lab is to foster a principled understanding of function and prediction in Biology [2].

Some recent references.


Candidates may informally contact Dr Juan F. Poyatos (jpoyatos at cnb.csic.e) and send a CV plus motivation letter at their earliest convenience to meet the application deadlines.