Junior/senior postdoc positions

Individuals with any scientific background (i.e., including evolutionary, molecular, or systems biology, mathematics, physics, chemistry, computer science, statistics, and its hybrids) with a genuine interest in evolutionary questions and quantitative approaches are welcome to apply to the available ERC-funded postdoc positions under the project “FIT2GO – A toolbox for fitness landscapes in evolution”.

Building on evolutionary theory, research in the lab revolves around quantifying epistasis across levels of biological organization and across environments, and to study its impact on the population genetics of adaptation and hybridization. We approach these questions through a combination of mathematical modelling, computer simulations, statistical method development, experimental evolution, and data analysis and interpretation. The long-term goal lies in understanding how ecology, evolution, and molecular constraints shape genomes.

Postdoc projects will be developed in collaboration with the respective candidate and may be focused on either or several of the following topics:

- develop mechanistic and statistical models of fitness landscapes across environments
- quantify intra- and intergenic epistasis and its consequences for adaptation
- infer distributions of fitness effects across genetic backgrounds and environments (experimentally and theoretically)
- quantify population dynamics and genetics under clonal interference and epistasis
- develop statistical methods for experimental-evolution data analysis
- study the effects of epistasis on diversity and divergence
- develop approaches to predict the cost of antibiotic resistance across environments (in collaboration with Isabel Gordo, IGC)
- test predicted mechanisms of drug resistance in influenza experimentally (in collaboration with Maria João Amorim, IGC)
Application procedure

Applications should be sent by email to evoldynamics[@]gmail.com and include a letter of motivation, a CV, and names and contact information of three referees. The earliest starting date is 1 March 2019, and the anticipated duration of each position is 2-4 years (via postdoctoral fellowships or working contracts). Review of applications will begin on January 10, and the call remains open until all positions are filled. For more information see https://evoldynamics.org/positions/