The EvoFlor network at University of Granada and MESSY lab at University of Cádiz are seeking a postdoctoral researcher that would be interested in joint development of an application for Marie *Skłodowska*-Curie Actions Individual Fellowships. We are seeking a highly motivated biologist (or similar) interested in questions related to evolutionary biology, species coexistence and/or population genetics and willing to combine tools from ecology and genetics to answer broad question on biodiversity evolution. Please find the abstract of the tentative project below.
The candidates need to have a PhD degree or four years of equivalent experience.
This year the deadline of the call is September 9th, 2020. To ensure that we have enough time to prepare the application, we would be thankful to receive a letter of interest, stating your interest and experience, and a CV by June 20, 2020, sent by e-mail to mabdelazizm@ugr.es and oscar.godoy@uca.es.

Evoflor is a multidisciplinary network of researchers studying diverse aspects of the evolution of plants, animals and their interactions. We integrate genetic, genomic, and ecological studies from theoretical and experimental perspectives. Our main study system comprises different species of the Brassicaceae family, although we also work in other disparate systems. The University of Granada (UGR), founded in 1531, is one of the largest and most important universities in Spain. Located in Southeast Spain and with over 60.000 undergraduate and postgraduate students and 6.000 staff, the UGR has a powerful presence in a city of 250.000 inhabitants. UGR offers a total of 89 degrees, 110 master's degrees and 28 doctoral programs through its 123 departments and 27 centers. Consequently, the UGR offers one of the most extensive and diverse ranges of higher education programs in Spain. The UGR is a leading institution in research, located in the top 5/10 of Spanish universities by a variety of ranking criteria, such as national R&D projects, fellowships awarded, publications, or international funding. UGR is one of the few Spanish Universities listed in the Shanghai Top 500 ranking (http://sl.ugr.es/0aw0). The edition of the ARWU places the UGR in 201-300 position in the world and as the 2nd highest ranked University in Spain, reaffirming its position as an institution at the forefront of national and international research. With more than 3,500 researchers and technicians engaged in various forms of predoctoral staff, postdoctoral contracts, incorporation of doctors and researchers, the UGR publishes annually more than 2,500 publications, with a percentage higher than 50 % in the first quartile; having a relative growth rate of production well above of the average for Spain and the EU. The UGR stands out especially in production levels in different areas including Earth Science and Instruments Science.

The goal of Mediterranean Ecological and Synthesis lab (MESSY lab) is to understand the ecological and evolutionary processes maintaining biodiversity and their links to ecosystems functioning. For that, we combine detailed field observations and process-based experiments with a unique interface of ecological theory and modelling toolboxes. This interface of theory, modelling and experiments is not specific to any taxonomic group. The University of Cádiz (UCA) is a medium size University close to the gulf of Cádiz in the Atlantic Coast of South West Spain. Although officially established in 1979, UCA can trace its origins back to the 15th century. The University of Cádiz is located in the range of 150-200 European universities in the first edition of Times Higher Education Europe Teaching Rankings (international classification focused

on the analysis of excellence in teaching). The UCA stands out in the following sections: teaching & inclusive learning environment, resources for the delivery of the degree certificates effectively and commitment & results. The UCA is above the Spanish average in 9 of the 15 items that appear in the survey made to students. UCA appears in five subjects of the ARWU ranking that selects the 500 best universities in each area of knowledge: Oceanography (range 151-200), Mathematics (range 301-400), Chemical Engineering (range 301-400), Environmental Science & Engineering (range 301-400), and Energy Science & Engineering (401-500).

Abstract:
Geneticists have long recognized the importance of genetic diversity on the performance of populations and as the raw material for evolution. Yet, the demographic consequences of such variation for the assembly of ecological communities is poorly understood. To solve this critical gap of knowledge, the proposal aims to experimentally manipulate genetic diversity through outcrossing, hybridization and polyploidization to investigate the effects of multiple sources of genetic diversity on the stabilising and equalising mechanisms responsible for maintaining biodiversity within ecological communities. In this framework, the candidate will address the multidisciplinary nature of this research by applying novel theoretical advances in coexistence theory and the associated mathematical toolboxes to a competitive experiment that contains artificial plants generated by using plant breeding techniques. This is a collaborative project between the EvoFlor network at Department of Genetics of the University of Granada, MESSY lab at University of Cadiz (Spain) with collaboration with Meise Botanic Garden (Belgium) and aims to provide mechanistic answers to two main questions: 1) what is the relative contribution of multiple sources of genetic diversity within plant species to coexistence mechanisms (i.e. stabilising and equalising)? And 2) which combination of phenotypic traits canalises differences in competitive ability between genetic variants? This project will provide a deeper understanding of the ecological consequences of genetic diversity for community assembly processes as there has not been previous attempts to evaluate the effect of multiple sources of genetic diversity on stabilising and equalising mechanisms, and will establish these relationships to allow predicting under which competitive environments novel genetic profiles can coexist with their progenitors. Overall, this proposal aims to establish a fluent dialogue between the field of genetics and ecology by studying the multiple effects of genetic diversity on maintaining biodiversity.