PostDoc in Computational Ecology
Insect-Plant-Microbe Interactions

Background: We are currently looking for a highly motivated full time (100%) PostDoc (Akademische*r Rat / Rätin auf Zeit) at the Faculty of Biology, group of Cellular and Organismic Networks of Prof. Alexander Keller, with an as early as possible starting date. The position is currently limited to a 3-year contract, however, can be prolonged by 3 further years if evaluation criteria are met. The workgroup recently moved to the LMU and works with interaction networks between insects, plants and microorganisms. We are mainly computational biologists, however also work in the field and use molecular methods, as e.g. Metabarcoding, Genomics, Meta- and Phylogenomics.

Scientific research tasks will be to perform computational analyses as statistical syntheses, modelling, bioinformatics and AI-analyses in the context of bi- and tri-partite interaction networks between insects, plants and microorganisms. Topics of interest are hereby for example variability of interaction and traits, environmental filtering and cost-benefit tradeoffs. For this, data obtained from previous projects (e.g. microbiomes) and such of public databases should be combined. Challenges are to clean up, harmonize and integrate such heterogenous and big-data sources. Further, algorithmics, coding, and development of tools and AI-models will be part of the work. Additional data may be obtained in the lab.

This position also provides the opportunity for habilitation in the German scholar system, i.e. great self-responsibility and independence conducting projects, as well as support of teaching (5 LVS) are mandatory. Beyond that the position allows for application of own third-party funding according to prior agreement and as long as the intended research falls within the scope of the group's interests. The working group is already integrated into various different coordinated research endeavours, which can serve as a basis to build up an own research network.

Requirements:

- Strong scientific interest in computational biology, biodiversity and interaction ecology, coevolution and species traits.
- Excellent skills and experience in analysis of big and heterogeneous data. Previous knowledge on data synthesis, bioinformatics and AI are of benefit.
- Routine with R and/or Python for data analyses. Other coding skills and programming languages are of benefit.
- PhD in natural sciences or equivalent, particularly in the areas of ecology, bioinformatics or evolutionary biology with focus on computational analyses in the dissertation.
- High motivation for a career in science; willingness and aptitude for self-responsible and independent work.
- Publications with relevance to mentioned tasks.
- Good writing, reading and communication skills in English. German communication skills or willingness to learn German within the first two years are welcome for teaching.

Salary and conditions: Salary and benefits are according to public service positions in Germany (TV-L, 100%). Start date: as early as possible. Our young research group offers a friendly and stimulating working atmosphere in an international team and strong support for your career. Our labs are equipped with state-of-the-art tools and techniques. We are part of a vivid faculty at the largest German university, working at the HighTechCampus Planegg-Martinsried. A balanced work-life relationship is important to us, we offer options to make this position also as a part time contract, flexible working times or with part time remote home-office. The LMU signed the "Charta of Diversity" and advocates gender and background equality. Women and minorities are therefore strongly encouraged to apply. Equally qualified handicapped applicants will be given preference.

Please send your application as **one single pdf file** per email to Prof. Alexander Keller (keller@bio.lmu.de) latest until **31. May 2022**. Applications should include a cover letter, a short summary of research interests, CV, if applicable third-party funding, complete certificates, and the names (with email addresses) of two potential referees.