

PhD Position in Single-Cell Evo-Devo of Orchid Flowers

Application Deadline: 2 October 2026 or until position is filled.

Position: The Department of Plant Evolutionary Biology at the University of Hohenheim in Stuttgart (Germany) seeks a highly motivated **PhD student** (f/m/d) with a keen interest in **evolutionary developmental biology of flowers** and a solid knowledge of genomics and bioinformatics. The position is funded for a duration of three years. Preferred starting date is by 1 January 2027.



Job Description: The successful candidate will be part of a project to identify key genes underlying the developmental genetic basis of pollinator-relevant floral traits, such as shape, colour and scent, at single-cell resolution. The project will compare flowers of 3 closely related species of sexually deceptive *Ophrys* orchids at different developmental stages, using state-of-the-art single-nucleus RNA-Seq approaches to pinpoint regulatory networks and their species differences. Candidate gene validation will use RNA in situ hybridisation techniques. For information on the study system, see e.g. Sedeek & al. (2014, *Mol. Ecol.*) or Russo & al. (2024, *Nat. Comm.*).

Main tasks:

- Initial field work (Puglia, Italy) for plant sample collection
- Library preparation and analysis of single-nucleus RNA-Seq data
- Data integration and computational analysis to infer gene regulatory networks
- Validation of candidate gene expression by fluorescent RNA *in situ* hybridisation
- Publication of the findings in high-quality peer-reviewed journals
- Presentation of results in scientific meetings and seminars
- Interaction with MSc students working on morphogenetic modelling, proteomics and flower 3D shape data

Qualifications and skills:

- Completed master's degree (or equivalent; min. 240 ECTS as (under)graduate) in biology or a related discipline, allowing the enrolment as a doctoral student
- Thorough understanding of genomics, plant developmental and evolutionary biology
- Good bioinformatics and statistical data analysis skills (ideally using R)
- Molecular lab experience to facilitate RNA in situ techniques, isolation of nuclei and library preparation
- Good communication skills and proficiency in oral and written English. German or Italian skills are a plus

The ideal candidate should be highly motivated and able to articulate her/his motivation for this project clearly in the cover letter. S/he should be intellectually rigorous, well organised, scientifically independent and resilient, with a thorough understanding of evolutionary biology, development, genomics and molecular biology, and would ideally have a strong interest in floral development and orchid pollination.

Salary and Benefits: Salary and conditions of this 3-year position are according to public service positions in Germany (TV-L E13; 65%; see <https://oeffentlicher-dienst.info/tv-l/allg/>).

Working environment: The University of Hohenheim is an innovative and international research university in the south of Stuttgart. The pleasant campus is close to the airport and hosts a well-equipped research infrastructure, a baroque palace and rambling parks. The successful candidate will work in a young, active and interdisciplinary environment and be part of the Cluster of Excellence [GreenRobust](#), working at the Universities of Hohenheim (Dept. of [Plant Evolutionary Biology](#)) and Tübingen ([Timmermans lab](#)).

Application: Your application should consist of a non-AI letter of motivation (1-2 pages), CV and (if applicable) publication list, certificates, and the names and e-mail addresses of three academic referees. The letter of motivation should detail why you are personally interested in the project, why you find it relevant and why you think you are well-suited to undertake it. The University of Hohenheim seeks to increase the proportion of women in research and teaching and strongly encourages qualified female scientists to apply. With equal qualifications, preference will be given to candidates with disabilities. Please submit your application as a **single PDF** to Prof. Philipp Schlüter (admin190b@uni-hohenheim.de). Any requests for further information should also be directed to this address. Screening of applications will begin on 2 October 2026 and continue until the position is filled. The position is available from Q4 2026.