



PhD student (m/f/d) to study bacterial resistance evolution towards immune effectors in the metamorphic insect gut

For Ecosystem Research of IGB in Berlin-Dahlem at the FU Berlin we are inviting applications for the position of PhD student (m/f/d) to study bacterial resistance evolution towards immune effectors in the metamorphic insect gut for an immediate start.

The position is part of a collaborative Research Unit funded by the Deutsche Forschungsgemeinschaft (DFG) to investigate the tripartite relationships between insect hosts, the microbiota and bacterial infection. The Research Unit will give the opportunity for the candidate to interact with a diverse group of doctoral students, post-docs and PIs, to obtain methodological training, and to collaborate with theoreticians and bioinformaticians. There will be yearly retreats for Research Unit members and access to a graduate training programme.

Your tasks

- manipulate immune effector expression in the metamorphic gut in order to
 - quantify the rate of bacterial resistance evolution towards combinations of immune effectors
 - identify the underlying mechanisms of bacterial resistance and quantify their effects on resistance, cross-resistance, and collateral sensitivity
 - quantify the fitness costs of resistance evolution both in vitro and in vivo and in the presence and absence of the gut microbiota
- work in collaboration with Jens Rolff (Freie Universität Berlin) and the Berlin Center for Genomics in Biodiversity Research (BeGenDiv)]

We foster your **career development** by providing qualification and training opportunities. We actively support the reconciliation of work and family life. Applicants are treated equally regardless of gender. Qualified women are particularly encouraged to apply. Applications of severely disabled persons with equal qualification will be given priority.

Are you interested?

We look forward to receiving your application with the usual documents (CV, a letter of motivation, copies of relevant degrees and contact details of two referees) by **31.07.2020**. Please state the job reference number 07/2020 and apply exclusively via our recruitment platform at www.igb-berlin.de/en/jobs.

Questions can be directed to Paul Johnston by e-mail (paul.johnston@igb-berlin.de).

Your Requirements

- MSc or equivalent in Biology or related discipline
- Proficiency in spoken and written English
- Strong interest in evolutionary ecology
- Laboratory experience with bacteria and insects
- Experience in experimental evolution
- Experience in bacterial genetics/genomics
- Experience in statistics and a unix environment

Our offer

Salary is paid according to the German salary scheme for the public sector (TVÖD Bund). It is a 65% position for doctoral research. It is a fixed-term position, initially limited to 4 years.

“Research for the future of our freshwaters” is the mission of the **Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB)**. The IGB is Germany’s largest and one of the leading international research centres for freshwaters. We seek to understand the fundamental processes governing freshwaters and their communities. Our research findings help to tackle global environmental changes and to develop measures for sustainable water management. The IGB is a diverse and inspiring place to work and conduct research. We promote individual development at every career level and stand for lively exchange and cooperation. With more than 350 employees and guests from all over the world, we conduct research at five locations in Berlin and at Lake Stechlin (Brandenburg). IGB closely collaborates with numerous national and international universities and other partners in science and society and is a member of the **Leibniz Association**, which connects 96 independent public research institutes in Germany. www.igb-berlin.de