

PhD scholarship in Analytical Biochemistry / Shotgun Proteomics

Prof. Boris Macek advertises a PhD position in his group at University of Tübingen, Germany. This PhD position is a part of the BUG-ID Marie Skłodowska-Curie Doctoral Training Network (DN), funded by the European Commission. BUG-ID consortium has a mission to improve infection diagnostics. All BUG-ID PhD students will be trained in an interdisciplinary environment and experience a collaboration among academia, healthcare and the private sector.

PhD project title: Novel workflows for identification of intracellular biomarkers by shotgun proteomics

Responsibilities and tasks

The candidate hired for this position will work on development and application of novel workflows for MS-based identification of intracellular protein biomarkers in low abundance samples of bacterial pathogens and host cells. Graphene-based strategies will be developed to facilitate chemical rupture and homogenization of small numbers of bacterial and eukaryotic cells. This pipeline will be coupled to state-of-the-art mass spectrometry analyses of proteins and their post-translational modifications, including downstream bioinformatics. Biological applications will include work on bacterial communities (incl. metaproteomics), host cells and their signal transduction under various perturbations.

The specific tasks will include:

- Studying the available literature in the field and formulating own scientific hypotheses and questions
- Conducting scientific experiments and analysing data
- Writing peer reviewed scientific publications
- Actively interacting and collaborating with other partners in the consortium
- Participating in consortium outreach activities
- Completing courses and training required for being awarded the PhD degree

Qualifications

Candidates should have a two-year master's degree (120 ECTS points) or a similar degree with an academic level equivalent to a two-year master's degree.

Applicants are required to undertake transnational mobility (i.e. move from one country to another) when taking up their appointment. At the time of recruitment by the host beneficiary, candidates must not have resided or carried out their main activity (work, studies, etc.) in Germany for more than 12 months in the 3 years immediately prior to the date of appointment.

Fluency in written and spoken English is a requirement.

A master's degree project carried out in a proteomics-, microbiology- or cell biology laboratory will be considered as an advantage.

Approval and Enrolment

The scholarship for the PhD degree is subject to academic approval, and the candidate will be enrolled in one of the general degree programmes at University of Tübingen and IMPRS Graduate School of the University and MPI for Biology in Tübingen. For information about our enrolment requirements and the general planning of the PhD study programme, please see <https://uni-tuebingen.de/en/faculties/faculty-of-science/doctoral-studies/> and <https://www.phd.tuebingen.mpg.de/imprs?>.

Assessment

Submitted applications will be reviewed by IMPRS Faculty and members of the Macek lab. Top applicants will be invited to an interview, where among other items, fluency in English will be assessed.

We offer

University of Tübingen is one of leading German universities globally recognized for the excellence of its research, education, innovation and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility.

Salary and appointment terms

The hired PhD student will receive an attractive salary in accordance with the MSCA regulations for Doctoral Candidates (<http://ec.europa.eu/research/mariecurieactions/>). The salary includes a living allowance, a mobility allowance and a family allowance (if already married at the start of appointment). The guaranteed PhD funding is for 36 months.

Further information

Further information may be obtained from Prof. Boris Macek: administration@ifiz.uni-tuebingen.de

Application

Please submit your online application no later than **19.01.2026**. Apply online at <https://www.phd.tuebingen.mpg.de/3849/Apply-to-IMPRS>. Application portal will open in December 2025.

Applications must include:

- A letter motivating the application (cover letter). *This should include a concise description of your motivation for getting a PhD degree: why do you want it and what do you expect from your PhD project in terms of scientific and education goals and your own career development.*
- Curriculum vitae
- Grade transcripts and BSc/MSc diploma
- Letters of Support by two researchers who are familiar with your academic performance (typically supervisors of your B.Sc. and M.Sc. theses)

Candidates may apply prior to obtaining their master's degree but cannot begin before having received it.

The University of Tübingen wishes to enhance the share of employed women in research and teaching. Equally qualified candidates with disabilities will be given preference in the hiring process.

The University of Tübingen is committed to equity and diversity and actively promotes equal opportunities.

The employment will be handled by the central administration of the University of Tübingen.