

PhD student in Ubiquitin signalling (UBIMOTIF) (#PBPHD02)

The Institute of Molecular Biology (IMB) is a Centre of Excellence for Life Sciences, funded by the Boehringer Ingelheim Foundation, and located within the campus of the Johannes Gutenberg University in Mainz, Germany. Within the European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement No 860517, the laboratory of Prof. Petra Beli (<https://www.imb.de/research/beli/research>) is offering a PhD position for an Early Stage Researcher (ESR). The **UBIMOTIF consortium** includes 13 research groups and 6 partners from 10 European countries and is a joint training and research program with focus on identification, characterization and exploitation of short linear motifs in the ubiquitin system. Visit <https://ubimotif.ku.dk/> for more information.

Description of the network and PhD project

The ubiquitin system is a major promising source for novel therapeutic approaches. However, its potential has not been satisfactorily exploited due to the limited understanding of ways to target the ubiquitin system. Ubiquitin ligases and deubiquitinating enzymes (DUBs) are enzymes that actively add or remove ubiquitin from proteins to regulate cell physiology. How these enzymes selectively recognize their substrates is largely unknown but an emerging theme is that a globular domain in the enzyme binds a short linear interaction motif (SLiM) in the substrate. The UBIMOTIF consortium aims to exploit novel technological advances to identify, characterize and exploit SLiMs on substrates that mediate interactions with ubiquitin ligases and DUBs. The Beli laboratory develops and employs quantitative mass spectrometry-based proteomics approaches to identify and characterize ubiquitin-dependent mechanisms that drive nuclear protein quality control and DNA damage response. The family of HECT-type ubiquitin ligases has been implicated in human disorders including neurodegeneration and cancer. In this project, we will define substrate specificity principles for nuclear HECT-type ubiquitin ligases and characterize the functional role of selected ubiquitin ligase – substrate relations in proteome dynamics and quality control.

Required qualifications

- A Master degree in cell biology, biochemistry, or related areas
- Knowledge of programming languages such as Python or R is a plus, but not a prerequisite for the position
- Outstanding motivation and strong scientific enthusiasm
- Good communication and interpersonal skills
- Fluency in English

In addition, candidates will be required to meet the Marie Skłodowska-Curie Early Stage Researcher (ESR) eligibility criteria. Mobility Rule: Researchers must not have resided or carried out their main activity in Germany for more than 12 months in the 3 years immediately before the recruitment date. ESR criteria. ESRs must, at the date of recruitment by the host organisation, be in the first four years of their research careers and have not been awarded a doctoral degree.

To apply, please send a **single PDF file** containing the cover letter, CV, 2 reference letters and certificates of your degrees quoting Ref. No. #PBPHD02 to personnel@imb-mainz.de. IMB is an equal opportunity employer. Informal enquires should be addressed to Petra Beli (p.beli@imb-mainz.de).

Starting date: latest 1st October 2020

Duration: Initially 3 years with an option of further extension

Closing date: 20th April 2020

Declaration of Consent and Data Protection

By sending us your application, you are consenting to us saving your personal data in order to carry out the selection process. You can find more information on data protection and retention periods at <https://www.imb.de/jobs/data-protection>.