

MASTER'S STUDENTSHIPS AVAILABLE

We offer **two stipends** in the project “*Proteolysis-targeting strategies in bacterial systems for functional studies of proteins and improvement of antibiotics*” carried out within the FIRST TEAM programme of the Foundation for Polish Science.

Research group description:

The Structural Biology Group specializes in structure-function studies of proteins and is interested in developing their applications in biotechnology and medicine. We are a new group affiliated with the Faculty of Chemistry of the University of Warsaw and located at the Biological and Chemical Research Centre. More information at <https://gorna.uw.edu.pl>

Project description:

Proteolysis-Targeting Chimeras (PROTACs) are heterobifunctional molecules targeting proteins for degradation. Eukaryotic PROTACs exploiting ligands of E3 ubiquitin ligases emerged as very potent drugs, due to their irreversible and recyclable mode of action. However, this approach has not yet been employed in bacteria, which lack the ubiquitin-proteasome pathway. We will establish whether an induced-proteolysis approach would be effective to down-regulate target endogenous proteins in bacteria, and engineer the chemical tools needed to do so. We will screen for suitable bacterial proteases and ligands, including known adaptor tags and protease ligands. Identified compounds will be validated in vitro and in bacteria. The resulting tool compounds will enable regulation of gene expression on the protein level for studies of protein function and drug action. Bacterial PROTACs could pave the way to create novel antibiotics, which is crucial in the era of increasing antimicrobial resistance. This project will be performed in collaboration with Ben Luisi (University of Cambridge, United Kingdom) and WPD Pharmaceuticals (Warsaw, Poland).

The M.Sc. students will aid the development of the bacterial PROTAC candidates and might choose to work on parts of the project either oriented towards biotechnology or organic chemistry.

Ideal Candidate's profile:

- Enrolment in a study program over the duration of the studentship (1st year Master's students preferred).
- Bachelor degree in biotechnology, chemistry or a related field (might be pending during recruitment)
- Previous experience working in a biology or chemistry laboratory
- Very good knowledge of molecular biology, microbiology, biochemistry (for biotechnology-oriented students)
- Very good knowledge of organic chemistry and enzymology (for chemistry-oriented students)
- Very good level of written and spoken English

Application should include:

A cover letter, CV, BSc diploma copy (if available), academic transcripts, a recommendation letter, a signed consent*.

Candidate should expect:

- A stipend up to 1500 PLN/month up to 17 months, 1 stipend starting from July 2019, 1 no later than October 2019.
- Participation in scientific schools, workshops and conferences, and visits to collaborating laboratories.
- To conduct advanced biochemical analysis of proteins and their interactions (for biotechnology-oriented students),
- To perform synthesis of small-molecule or peptide PROTAC candidates (for chemistry-oriented students)
- To assay compound activity in bacterial cells

Applications should be submitted by email (topic “Student”) to M. Górna at recruit.gorna@gmail.com by 11.06.2019,

Selected candidates will be invited for an interview in English, in person/via a teleconference, by 18th of June 2019.

Please include in your offer this **signed** and **dated** clause: “I hereby consent to have my personal data processed by the University of Warsaw with its registered office at Krakowskie Przedmieście 26/28, 00-927 Warszawa for the purpose of carrying out a recruitment process and selecting an employee and concluding a contract for employment at the University of Warsaw. I have been informed of my rights and duties. I understand that provision of my personal data is voluntary.”

INFORMATION ON THE PROCESSING OF PERSONAL DATA

INFORMATION CLAUSE

Pursuant to Article 13 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), University of Warsaw hereby informs:

1. The Controller of your personal data is the University of Warsaw with its registered office at Krakowskie Przedmieście 26/28, 00-927 Warszawa;
2. The Controller has designated the Data Protection Officer who supervises the processing of personal data, and who can be contacted via the following e-mail address: iod@adm.uw.edu.pl;
3. Your personal data will be processed for the purpose of carrying out a recruitment process and selecting an employee and concluding a contract for employment at the University of Warsaw;
4. The provided data will be processed pursuant to Article 22¹ § 1 of the Act of 26 June 1974 Labor Code (uniformed text: Dz.U. of 2018, item 917) and your consent for processing of personal data;
5. Provision of data in the scope stipulated in the Labor Code is mandatory, and the remaining data are processed according to your consent for processing of personal data;
6. The data will not be shared with any external entities;
7. The data will be stored until you withdraw your consent for processing of personal data;
8. You have the right to access your personal data, to rectify, erase them, restrict their processing, object to processing, and to withdraw the consent at any time;
9. You have the right to lodge a complaint to the President of the Office for the Protection of Personal Data.

CONSENT CLAUSE

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.....
(place and date)

.....
(signature of the person applying for employment)