

PhD Studentship in molecular and structural biology

Join the Project Team of Dr. Katarzyna Bandyra at the University of Warsaw

Dr. Katarzyna Bandyra's team at the University of Warsaw is seeking a motivated PhD student to join a project on RNA transport to mitochondria, supported by the 2.2 FENG First Team grant from the Foundation for Polish Science. This position offers a unique opportunity to learn and apply the revolutionary technique of electron cryomicroscopy which is significantly advancing the field of structural biology.

Project Overview:

The project aims to decipher the mechanisms of mitochondrial RNA transport through comprehensive biochemical and structural characterization of proteins essential for mitochondrial homeostasis. This research will enhance our understanding of cellular processes and protein-RNA interactions within mitochondria, with the ultimate goal of designing an efficient system for RNA delivery to this organelle.

Key Responsibilities:

- PAR-CLIP and large-scale RNA production
- Protein expression in bacterial and mammalian systems and protein purification
- Characterization of protein-RNA interactions
- Structural analysis of protein-RNA complexes

Candidate Requirements:

We are looking for an outstanding young researcher with the following qualifications:

- Master's degree in molecular biology or a related field
- Experience in basic molecular biology techniques and cell culture
- Strong interest in protein biochemistry and the biology of protein-RNA complexes
- Excellent organizational skills
- Fluency in spoken and written English (opportunity for cryoEM training at Ben Luisi's lab, University of Cambridge)
- Experience in protein expression and purification, RNA manipulation, and structural biology is advantageous

Application Process:

Interested candidates should submit their application to recruit.bandyra@gmail.com by 28th September 2024, with the subject line "First Team-PhD". The application must include:

- Motivation letter
- Two letters of recommendation (preferably including one from the thesis supervisor) or contact details for two referees

- CV detailing academic achievements (grade average, awards, studentships, conference presentations, internships, publications, etc.)
- Consent clause for the processing of personal data (*"I agree to the processing of personal data provided in my application (CV, cover letter, and other submitted documents) by the University of Warsaw for realising my recruitment process."*; Please sign and date the consent). See example: <http://www.chem.uw.edu.pl/oferty-pracy>)

Position Details:

- Start Date: October-November 2024
- Duration: 48 months
- Studentship: 5500 PLN gross per month

For an example of Dr. Bandyra's recent work, see: *A cooperative PNPase-Hfq-RNA carrier complex facilitates bacterial riboregulation*. *Molecular Cell* (2021) <https://doi.org/10.1016/j.molcel.2021.05.032>