

Postdoctoral Researcher in Lipid/Protein Nanoscience

Bionanoscience and Biochemistry Laboratory (Heddle Lab) Malopolska Centre of Biotechnology, Krakow, Poland

We are now recruiting a Postdoctoral scientist to join our team to design and build DNA-membrane protein nanomachines for use in artificial cells. The project offers the opportunity to gain experience in a new area of synthetic biology, which will become increasingly important in the future. It also offers the chance to work in a dynamic, international team working closely with partners across the globe including Japan and Germany where we have an official collaboration with Max Planck Institute of Medical Research in Heidelberg.

You will join the Heddle lab (www.heddlelab.org), a newly established, innovative lab carrying out ambitious research aimed at designing and building artificial biological nanomachines using DNA, protein and lipid building blocks. We are located in a state-of-the-art laboratory, based at the new Malopolska Centre of Biotechnology, in the beautiful city of Krakow, Poland

Details of Project: The successful candidate will join a FNP "TEAM" project aiming to design and build novel DNA-based nanomachines able to interact with specific proteins and help construct artificial cells. The project is in collaboration with Ilia Platzman at the Max Planck Institute of Medical Research in Heidelberg, Germany. Your contribution will be: **1.** Production and purification of membrane proteins (with Masters student). **2.** Optimising and measuring interaction of proteins with lipid bilayers. **3.** Working with the team to interact DNA devices with proteins and lipids. **4.** Structural studies of designed membrane protein complexes (with expert collaborators in Japan). **5.** Working with microscopists and structural biologists to image DNA machines alone and in complex with proteins. **6.** Working with collaborators in the lab and Max Planck institute to apply the lipid-protein-DNA devices to artificial cells. **7.** Overseeing one PhD student and one Masters student who will also work on a related project producing DNA-based devices

Requirements

1. Should have a PhD in molecular biology, biochemistry, biophysics or related discipline
2. Must be less than 5 years since awarding of PhD (not including allowed career breaks)
3. Demonstrated expertise including high quality publications in working with lipids and membrane proteins
4. Experience in structural biology, particularly cryo EM will be advantageous but not obligatory
5. Have good written and oral communication skills in English

Important Dates

- Application Deadline: September 1st 2017 Start Date: October 2nd 2017 or as soon as possible thereafter

Our Offer

- Three-year postdoctoral research position with generous, *internationally competitive* remuneration
- Discounted membership of sports facilities ("Multisport", <https://www.benefitsystems.pl/en/for-you/multisport/>)
- Subsidised social events (theatre tickets, hotels etc)
- Excellent training: In our diverse group you will be able to network with international researchers, experience and learn new skills including in DNA origami design, enzyme biochemistry, structural biology, protein design etc.

How to Apply

Send applications to jonathan.heddle@uj.edu.pl applications should be marked "FNPostdoc2" and include the following:

1. Copy of PhD certificate
2. Contact details of a minimum of two referees including a former academic supervisor
3. Motivation Letter
4. CV
5. Your application must include the following statement: "I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 29 August 1997, consolidated text: Journal of Laws 2016, item 922 as amended."

The best candidates may be interviewed shortly after the application deadline.

