

**Name of entity:**

Institute of Physics, Faculty of Materials Engineering and Technical Physics, Poznan University of Technology

**Position name:**

PhD Student – stipend

**Requirements:**

- MSc in Physics / Chemistry / Biochemistry / Biophysics,
- Strong background in molecular physics, biophysics, spectroscopic and microscopic techniques; hands-on experience in microscopy is an advantage,
- Strong technical background, knowledge of optics and/or programming will be an advantage,
- Knowledge of scientific software such as Matlab, LabVIEW will be beneficial,
- Very good level of written and spoken English language,
- The successful candidate will be required to enrol (subject to evaluation) or should already be enrolled in the Doctoral School of the Poznan University of Technology,
- Professional approach, self-motivation and ambition.

**Tasks:**

The aim of the project is to study the spatial orientation of selected guest molecules in various model biological membranes and to gain insight, at the molecular level, into the mechanisms that modulate the spatial orientation of these molecules. This will be achieved using a range of microscopy and spectroscopy techniques. The PhD student will be expected to construct/modify and optimise microscopy setups in order to accommodate the required experiments. The next step will be to prepare biomimetic cell membranes with the selected guest molecules and to follow the spatial orientation of these guests in different membrane model systems with different properties (structure, composition, hydration, complexity). In general, the PhD student will be expected to design, perform and evaluate experiments independently; to design, construct and modify experimental setups; to be able to collaborate with others including research trips abroad; to prepare scientific reports and research manuscripts; and to disseminate scientific results at conferences.

This position and research tasks are the part of the NCN project, “*Molecular freeze dance - tracking the spatial orientation of molecules in biomimetic cell membranes*”, SONATA BIS 12, 2022/46/E/ST4/00132.

Principal investigator: Łukasz Piątkowski, PhD, prof. PUT.

Molecular BioPhysics Group

<https://www.piatkowskilab.com/>

**Submitting an application:**

e-mail: lukasz.j.piatkowski@put.poznan.pl

**The conditions of employment:**

The remuneration (stipend) amounts to 3000 PLN per month for the period of 48 months.

Note: Apart from the above, the doctoral student may receive an additional, separate scholarship from the Doctoral School.

**Additional information:**

Complete application should include the following items:

- a complete scientific curriculum vitae, including a list of scientific achievements (education, scholarships, publications, patents, conference presentations, etc.),
- motivation letter,
- a list of 2 persons willing to provide reference letters,

Please add below mentioned sentence to the scientific curriculum vitae:

*„I agree to the processing of personal data provided in this document for realizing the recruitment process at Poznan University of Technology in Poznan to carry out the current recruitment procedure”.*

The documents should be sent to: [lukasz.j.piatkowski@put.poznan.pl](mailto:lukasz.j.piatkowski@put.poznan.pl)

**Call opening:** 2 April 2024

**Application deadline:** 17 April 2024

Results by: 20 April 2024

Starting date: 1 October 2024

Selected candidates will be invited for an interview. The successful candidate will be selected by a committee chaired by the project leader.