As a University of Excellence, Universität Hamburg is one of the strongest research universities in Germany. As a flagship university in the greater Hamburg region, it nurtures innovative, cooperative contacts to partners within and outside academia. It also provides and promotes sustainable education, knowledge, and knowledge exchange locally, nationally, and internationally.

The Faculty of Mathematics, Informatics and Natural Sciences, Department of Physics, Institute of Nanostructure and Solid State Physics invites applications for a

**MARIE SKŁODOWSKA-CURIE ITN EARLY STAGE RESEARCHER FOR THE PROJECT**

“TIME-RESOLVED STRUCTURAL STUDIES OF MEMBRANE PROTEINS (ESR10)”

**FUNDED BY THE MARIE SKŁODOWSKA-CURIE ACTIONS (MSCA) INNOVATIVE TRAINING NETWORKS (ITN) PROGRAMME “NEUROTRANSMITTER TRANSPORTERS: FROM SINGLE MOLECULES TO HUMAN PATHOLOGIES” (NEUROTRANS)***

**SALARY IN LINE WITH THE STANDARD RATES FOR MSCA (HTTPS://EC.EUROPA.EU/RESEARCH/MARIECURIEACTIONS/SITES/MARIECURIE2/FILES/MSCA-ITN-FELLOWS-NOTE_EN_V2.PDF)**

The position, in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) commences on 1 October 2020.

This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed for 36 months. The position calls for 39 hours per week.

* Full-time positions currently comprise 39 hours per week.
RESPONSIBILITIES:
Time resolved structural studies are the new frontier in structure biology. In a time-resolved experiment we aim to directly visualise the conformational changes associated with biological macromolecular function. To date, no time-resolved structural data for an NSS family member exist, although we do have structures of putative intermediates along the transport pathway. Project 10 aims to directly visualise in real-time, with high spatial resolution, the structural changes that couple substrate binding to transport of at least one of the NSS family members using time-resolved crystallography. This project will be carried out in close collaboration with the rest of the network. The highly pure NSS family members that are generated in the other projects will be targets for microcrystallization to yield the samples needed for this project. The data we obtain in this project will be fed into the molecular modelling, in combination with the spectroscopic and biochemical data obtained in the other projects, to allow us to build a detailed molecular description of how this class of membrane transporters work.
The successful candidate will carry out research to determine the optimal sample delivery reaction initiation protocol for each system studied. For time-resolved structural studies you will explore the possibilities offered by both X-ray and electron crystallography.

SPECIFIC DUTIES:
As well as carrying out the research project outlined above, the successful candidate will be expected to complete a PhD.

REQUIREMENTS:
Applicants should have BSc in Biochemistry/Biophysics/Nanoscience/Physics or a related discipline and an associated Masters or an equivalent level of professional qualification or experience. Knowledge and experience of protein crystallization and membrane protein production/purification is desirable, but not essential. The positions are subject to the eligibility criteria of the European Union’s Marie Skłodowska-Curie ITN programme, which include the following:
• Applicants must be Early-Stage Researchers (ESRs), i.e. that they are within the first four years (full-time equivalent) of their research careers and have not yet been awarded a doctoral degree (PhD).
• Applicants can be of any nationality but must not have worked, studied, or carried out their main activity for more than 12 months during the previous 36 months (from time of employment) in the host’s country (Germany).

The Free and Hanseatic City of Hamburg promotes equal opportunity. As women are currently underrepresented in this job category at Universität Hamburg according to the evaluation conducted under the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HambGleiG), we encourage women to apply for this position. Equally qualified and suitable female applicants will receive preference.

Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

For further information about this project within NeuroTrans, please contact arwen.pearson@cfel.de or consult our website at www.neurotrans.org.
Applications should include a cover letter, complete application form, curriculum vitae and copies of degree certificate(s) and two written references, according to the instructions on the NeuroTrans website. The application deadline is 22 June 2020. Please send applications to office@neurotrans.org.

Please do not submit original documents as we are **not** able to return them. Any documents submitted will be destroyed after the application process has concluded.