UNIWERSYTET WARSZAWSKI

CeNT CENTRUM NOWYCH TECHNOLOGII

CeNT-09-2026

Director of the Centre of New Technologies of the University of Warsaw, with the Project Leader, announce the opening of the competition for the position of Student in the Interdisciplinary Laboratory of Biological Systems Modelling – Centre of New Technologies of the University of Warsaw.

JOB OFFER

Position in the project:	Student
Laboratory:	Interdisciplinary Laboratory of Biological Systems Modelling
Scientific discipline:	Machine learning or chemical sciences, biophysical Sciences, biology
Keywords:	Cytokines, structural biology, prediction, databases, AI
Job type (employment contract/stipend):	stipend
Number of job offers:	2
Maximum stipend amount/month:	1000 - 2500 PLN gross gross, depending on experience and qualifications
Position starts on:	1 april or later
Maximum period of contract/stipend agreement:	12 months or possibility of extension up to 16 months in total
Institution:	Centre of New Technologies, University of Warsaw
Project leader:	Professor Joanna Sułkowska
Project title:	Classification of entangled proteins with intra-chain bonds and influence of entanglement on misfolding
Competition type:	OPUS 24
Financing institution:	NCN
Project description:	The goal of this project is to reveal the influence of entanglement (i.e., non-trivial topology) on protein function, folding, and misfolding. ● This represents a fundamental challenge in structural biology, particularly given that protein misfolding plays a key role in the pathogenesis of many neurodegenerative diseases. ● Chemical modification, topology, and AI—these three unique features enable the design of new biomolecules with tremendous potential for drug delivery, as they exhibit enhanced thermal and chemical stability as well as increased resistance to proteolysis. The project is interdisciplinary and integrates aspects of knot theory, artificial intelligence (AI), numerical simulations, structural biology, as well as both in vivo and in silico studies.

Key responsibilities include:	The role of the applicant will be to conduct ● bioinformatics/machine learning/databases investigation ● or experimental investigation to develop a method/protocol to obtain a sample of new proteins and then determine the structure using either X-ray or cryo-EM methods. The results obtained will then be used as training data for the AI model so as to create state-of-the-art methods to design biomolecules.
Profile of candidates/requirements:	The competition is open for persons who meet the conditions specified in the regulations on the allocation of resources for the implementation of tasks financed by the National Science Centre for OPUS 24 grant. The candidate should be enrolled as a student of first cycle studies, second cycle studies or uniform Master's studies conducted in a higher education institution on the territory of Poland. Experience in protein expression and purification or has experience in bioinformatics, AI methods. In the case of applications for experimental positions - candidate should have strong background in protein/RNA biochemistry or biophysics or molecular microbiology (should have experience with a protein expression from an E. coli bacterium, chromatographic methods of their purification, kinetics study). In the case of applications for theoretical positions - experience in conducting computer simulations, good knowledge of Python, scientific computing libraries, AI methods, database evaluation and knowledge of the LINUX environment is essential.
Required documents:	1. Cover letter; 2. Current curriculum vitae; 3. Lectures completed during the course of study with marks; 4. Copy of document confirming the student status; 5. Signed information on the personal data processing Before entering the competition, candidates are obliged to familiarise themselves with **Internal Reporting Procedure.**
We offer:	An opportunity to participate in a multidisciplinary project in one of the best scientific institutions in Poland. Stimulating, young and friendly work environment. Access to high quality structural biology laboratory, as well as, high-end computing equipment (CPU clusters). Opportunity to participate in various practical EMBO workshops.
Please submit the following documents to:	j.sulkowska@cent.uw.edu.pl
Application deadline:	8.03.2026
Date of announcing the results:	14.03.2026
Method of notification about the results:	e-mail, CeNT website