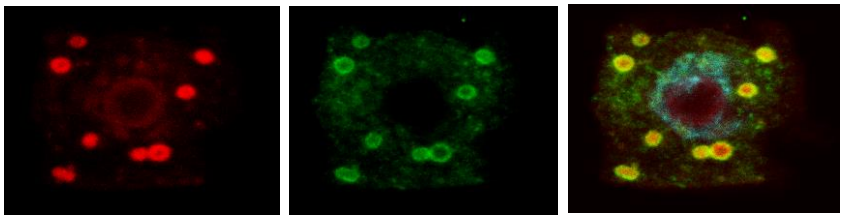
NICOLAUS COPERNICUS UNIVERSITY IN TORUŃ

NATIONAL SCIENCE CENTRE POLAND

Open PhD positions

Deadline for applications: September 15, 2024

Method of application: email: janiaszn@umk.pl



Information to Encourage Applicants:

- The opportunity to work on a 4-year scientific project in comfortable conditions and a friendly work environment
- Opportunities for scientific development
- Exposure to the international scientific community through trips and scientific conferences; a research stay in the laboratory of Professor Gordon Simpson (School of Life Sciences, University of Dundee, Dundee, United Kingdom)
- Learning new microscopy techniques and molecular biology, including nanopore RNA sequencing (transcriptome of stress granules and nuclei) and ultra-high resolution STED laser microscopy from Abberior
- Mentorship support and scientific supervision
- Living in the beautiful and livable city of Toruń;

Employment conditions:

- Duration of the scholarship/project: 48 months
- Scholarship amount: 5,000 PLN gross for the entire duration of the project
- Planned start date: October 1, 2024
- The PhD candidate will undertake training at the Doctoral School of Exact and Natural Sciences at Nicolaus Copernicus University, Academia Scientiarum Thoruniensis. The selected candidate will be required to submit application documents to AST.

Task description:

The PhD candidate will research plant tolerance to abiotic stress (hypoxia). The specific goal will be to elucidate the function of stress granules (SG) in response to hypoxia by regulating RNA availability to the translational machinery. To achieve this, we aim to characterize the SG transcriptome and translatome (ribosome profiling to identify which mRNAs are being translated). The next task is to determine the role of m6A (N6-methyladenosine; epitranscriptomic regulation) in SG biogenesis and translation regulation. We will also want to investigate the functions of the nucleus in the biogenesis of stress granules. The project will employ nanopore RNA sequencing and a range of microscopic techniques (protein and single mRNA molecule localization using FISH with Stellaris probes, PLA techniques), molecular biology techniques (RNA-seq, nanopore direct RNA sequencing, RIP, and A. thaliana transformation), and biochemical techniques (multidimensional liquid chromatography coupled with tandem mass spectrometry. Don’t hesitate to ask about project details.

Requirements:

- Master’s degree in biological sciences
- Good command of English, both spoken and written
- High motivation and enthusiasm for scientific work

- Ability to work in a team
- Experience in microscopy techniques and molecular biology, including working with RNA, is welcome

Required documents:

- Cover letter
- CV including information on achievements, considering past activities such as publications, conference presentations, participation in internships, training, scientific clubs, research projects, and received awards, scholarships, and grade point average obtained from studies
- A copy of the diploma of completion of integrated master's studies, or an equivalent
- Optional scans of language certificates and certificates documenting participation in scientific activities (conferences, seminars, internships, research projects)

Additional Information:

- Your personal data will be processed based on Article 6(1)(f) of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals about the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (GDPR). The administrator of your personal data will be Nicolaus Copernicus University in Toruń, located at ul. Gagarina 11 (University).
- Applications will be evaluated by a selection committee appointed by the project leader. The committee reserves the right to conduct interviews with selected candidates. Information about the outcome of the competition will be provided to candidates electronically no later than September 25, 2024.