

PhD student position in the project

Institution

University of Warsaw
Faculty of Biology, Institute of Bioengineering
Laboratory of Applied Microbial Ecology
ul. I. Miecznikowa 1, 02-096, Warsaw
Poland

Position

PhD student

Project title and type

(Bio)functionalized mineral and organic adsorbent-based floating islands as a nature-based, passive treatment system for the removal of pharmaceuticals from urban water reservoirs

Opus 28 project – financed by National Science Centre Poland (2025-2029)

Requirements

1. MSc graduate in biological sciences, biotechnology, bioinformatics or related scientific disciplines.
2. Knowledge of microbiology and molecular biology.
3. Practical experience in environmental microbiology and bioinformatics.
4. Practical experience in field work.
5. Practical experience in microbiological laboratory works, including bacteria culturing, DNA isolation and manipulation, PCR, qPCR.
6. Knowledge of bioinformatic tools and at least basic programming skill in bash-based scripting and other programming language (preferentially Python).
7. Experience in genomic and metagenomic data analyses.
8. Experience in experimental work and experiment planning.
9. Interest in interdisciplinary research combining environmental and material sciences.
10. Research experience will be an additional advantage (awards, scholarships, participation in scientific activities, conferences, publications, etc.).
11. Very good spoken and written English, allowing a candidate to read scientific literature and write scientific article and present the results on seminars and conferences.
12. Candidate must be successfully admitted to the Doctoral School of Exact and Natural Sciences or Interdisciplinary Doctoral School of the University of Warsaw.

A potential candidate should meet the following requirements set out in the regulations of the National Science Centre (details: https://ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2024/uchwala25_2024-zal1_ang.pdf)

Job Description

1. Collecting environmental samples.
2. Identifying and characterizing bacteria able to utilize pharmaceuticals.

3. Performing bacterial genomes sequencing using the Oxford Nanopore Technology, followed by bioinformatic analyses of acquired data.
4. Performing metataxonomic and metagenomic data analyses.
5. Biofunctionalizing 3D-printed floating island structures.
6. Performing biosafety analyses of mineral/organic-based adsorbents, their integration into 3D-printed structures and pharmaceuticals-degrading bacterial strains.
7. Preparing manuscripts and presentations for scientific conferences.
8. Participating in seminars, group meetings, and other activities of scientific exchange.

Application Deadline

December 31st, 2025, 11:59 CET

Form of application

by email: p.decewicz@uw.edu.pl

Terms of Employment

Job type (scholarship agreement): Stipend financed by the National Science Center

Number of job offers: 1

Stipend amount/month: monthly stipend 4 000,00 PLN (gross stipend, tax-free stipend)

Workplace: University of Warsaw; Faculty of Biology, Institute of Bioengineering, Laboratory of Applied Microbial Ecology, ul. I. Miecznikowa 1, 02-096, Warsaw, Poland

Position starts on: January 1st, 2026 (01.01.2026)

Period of employment with the scholarship: 45 months (the period can be extended)

In the event of a negative result of the recruitment to the Doctoral School of Exact and Natural Sciences or Interdisciplinary Doctoral School of the University of Warsaw, the contract will not be signed.

Additional Information

The application should contain the following:

1. Motivation letter outlining your interest in the proposed research - up to 2 pages.
2. Curriculum vitae (including, e.g., education, research activities, list of publications, awards etc.).
3. Documents confirming scientific degrees (copy of diploma).
4. Optional: a research resume with a list of research projects in which the candidate took part (with specification of the role); PDF files of publications; list of talks at conferences and workshops, list of prizes and awards; scientific experience, courses, trainings (e.g. supporting letters).
5. Scan of signed written permission for recruitment-related personal data processing, which states: „I give permission to the University of Warsaw, registered at the address of ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa, to process my personal data for the purposes of carrying out the recruitment procedure, choosing the employee, and entering into an employment contract with the University of Warsaw, if applicable. I have been informed about my legal rights and obligations in relation to these actions. I acknowledge that providing the aforementioned personal data is done by me on a voluntary basis.“
6. All required documents should be prepared in English.

7. The recipient of the scholarship will be selected by the Recruitment committee chaired by the Principal Investigator of the project (prof. Tomasz Bajda – AGH University of Krakow – bajda@agh.edu.pl).
8. Reviewing of the candidates will begin on 31st December 2025.
9. The candidates will be evaluated based on submitted documents. If needed, selected candidates will be invited for an online interview.
10. All candidates will be informed the results of the contest no later than 7th January 2026.