ANNOUNCEMENT OF TWO OPEN SCHOLARSHIP POSITIONS UNDER THE NCN OPUS-27 RESEARCH PROJECT

Entity: Silesian University of Technology, Biotechnology Center

Employment Period: Minimum 6 months, up to 48 months

Start Date: May 2025

Remuneration: The stipend of PLN 4,000 will be paid.

The research will be conducted at the Silesian University of Technology, Biotechnology Center, as part of the NCN OPUS project: "Development and evaluation of novel immunodiagnostic tests in the diagnosis of tuberculosis." This project aims to revolutionize TB immunodiagnosis by integrating novel antigens and state-of-the-art technology. This research project seeks to revolutionize the immunodiagnosis of Tuberculosis (TB) by integrating novel antigens and state-of-the-art technology. Integrating nanomaterial-based biosensors, including genosensors for detecting *Mycobacterium tuberculosis* (Mtb) cfDNA, alongside immunosensors targeting Mtb antigen panels, could create a powerful platform for early-stage TB diagnosis.

Job description:

1. Designing, planning, and carrying out field and experimental work under the supervision of the Principal Investigator and collaborators;
2. Bioinformatics and state-of-the-art computational tools for the selection of best aptamers
3. Preparation of Homemade screen-printed electrode (SPE) and AuNP immobilization
4. Construction of a sandwich immunosensor, DNA hybridization assay, and electrochemical detection
5. Validation and optimization of the aptamer-based biosensor/immunosensor
6. Provide technical support and expertise to ongoing projects, ensuring high standards of research and innovation; provide training and mentorship to junior technicians and other project staff
7. Collaborate with cross-functional teams to achieve project milestones and objectives
8. Maintain accurate records of experiments and data analysis
9. Contribute to the preparation of research reports, presentations, and publications independently in collaboration with the project team

Politechnika Śląska
Centrum Biotechnologii

ul. Krzywoustego, 44-100
Gliwice

1. **An application must include:**
    1. Application letter
    2. Student (BS, MS, PhD) in Chemistry, Microbiology, Biotechnology, Materials Science, or related disciplines
    3. Curriculum vitae (CV) including a list of scientific achievements. Scientific CV containing information on the candidate's interests and achievements: Demonstrable previous experience in immunosensors development, preferably including nanomaterials on the system. Description of any activity in scientific circles, list of any publications, information on any work in scientific projects (name of the project, short description of the scope of responsibilities and name of the director) and/or participation in scientific internships and information on any awards and distinctions awarded in connection with scientific activity.
    4. Address and emails of 3 potential referees

Profile of candidate:

1. Hands-on lab experience related to biosensor discovery, characterization, and optimization is strongly preferred.
2. Good English language skills (written and oral). Knowledge of Polish would be beneficial.
3. Good organizational and multitasking skills
4. Strong analytical and independent thinking skills
5. Ability to work both independently and in a team
6. Good work ethics

We offer:

1. The stipend of PLN 4,000 will be paid for min. of 6 months up to a max. of 48 months.
2. International and multidisciplinary environment
3. Opportunity for further career development
4. Performance-related bonuses that may exceed the basic salary level

For more information please contact:

Dr. Shima Mahmoudi: shima.mahmoudi@polsl.pl

Application Deadline:

The position is open until it is filled (first assessment of applicants on March 30, 2025). The top 3 candidates fulfilling the requirements will be invited to interview in early April.

Where to apply:

An electronic version of the application should be sent to the project PI: shima.mahmoudi@polsl.pl

Results announcement: as soon as possible (optimally in April 2025)

Information clause

Pursuant to Art. 13 of the Personal Data Protection Regulation of 27 April 2016, please be informed:

1) the controller of your personal data is the Silesian University of Technology with its registered office at Akademicka 2A St, 44-100 Gliwice,
2) the Silesian University of Technology has appointed the Data Protection Officer who can be contacted via the email address: iod@polsl.pl,
3) your personal data will be processed in order to carry out the recruitment process for work at the Silesian University of Technology,
4) the basis for the processing of your personal data is Art. 22^1 of the Labour Code and, if you consent to the use of your CV for future recruitment at the Silesian University of Technology, art. 6 section 1 point a of the GDPR regulation shall apply,
5) only employees authorized to process personal data to the necessary extent will have access to your personal data within the organizational structure of the Silesian University of Technology,
6) your personal data shall not be disclosed to other entities, except in cases provided for by law, 7) your personal data shall be stored for the period necessary to carry out the recruitment process or for the next 9 months after the end of the recruitment process, if you consent to the processing of personal data in future recruitment processes,
8) you have the right to request access to your data and, to the extent provided for by applicable regulations, the right to: rectify, delete, limit processing, raise objections; if you consent to the processing of data, you have the right to withdraw your consent at any time,
9) you have the right to lodge a complaint with the President of the Personal Data Protection Office, if you feel that the processing of your personal data violates the provisions of the General Data Protection Regulation,
10) providing data is voluntary, but necessary to achieve the purposes for which they are collected.