Institute of Microelectronics of Barcelona IMB-CNM (CSIC)
C/- dels Til·lers, S.N., Campus UAB | 08193, Cerdanyola del Vallès
https://www.imb-cnm.csic.es | rrhh@imb-cnm.csic.es
+34 93 594 7700

Job title Seeking for Ukrainian Researcher to join SPEED Research Group

Main tasks and responsibilities

We are looking for a Ukrainian candidate to join the team under Spanish National Research Council (CSIC) Scientific Cooperation Programme for a 24-months project.

Project objectives

The aim of this project is to develop a novel single use digital test for immunodetection. The test is based on electrochemical detection of antibodies labelled with enzymatic and non-enzymatic markers with an innovative self-powered approach.

The device will be fabricated with rapid prototyping techniques and made of medical grade laminate materials. The sample will be analysed, and the output electrochemical signal will be generated automatically without the need of an external power source. The signal will be digitally interpreted by a cell phone.

The concept has been patented and preliminary but promising results have been obtained. We aim to significantly push our development towards a fully operative solution to be potentially applied to detect different biomarkers in the field of companion diagnostics.

Specific objectives:

- Development of paper-based microfluidic structures
- Immunoassay development for the selected biomarker
- Prototype design and fabrication
- System integration and characterization of the assay in a relevant environment

Requirements

REQUIRED EDUCATION LEVEL

- Biological sciences: PhD or equivalent
- Chemistry: PhD or equivalent
- Engineering: PhD or equivalent

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SKILLS/QUALIFICATIONS

Candidate that meets CSIC Scientific Cooperation Programme requirements:

- Candidate must have a doctoral degreee
- Main place of work must be Ukraine. Displacements due to the current situation in the country are accepted.

SPECIFIC REQUIREMENTS

We are open to hear from candidates with different levels of experience in the field of bioelectrochemistry:

- Biochemistry/Biology/Chemistry/Physics or similar degree, preferable PhD in IVD related subjects.
- Experience and/or knowledge in electrochemistry is required.
- Experience and/or knowledge in immunoassay development will be valued.
- Ability to communicate in English

Description of Group/Project

Self-powered Engineered Devices research group (SPEED, https://www.imb-cnm.csic.es/en/research/research-groups/microenergy-sour...) a TECNIO group from the Institute of Microelectronics of Barcelona (IMB-CNM-CSIC) is devoted to the development of biofuel cells and paper-based batteries for diagnostics. In the last years, the team has developed single use power sources that act as self-powered sensors, paving the way towards simpler, battery-less but digital diagnostic approaches. Our expertise comprises biochemical energy generation, rapid prototyping of devices and printed electronics. The group is particularly interested in developing solutions from idea (TRL 1-2) to relevant environment applicability (TRL 6-7).

Summary of conditions

- TYPE OF CONTRACT: Temporary
- JOB STATUS: Full-time
- HOURS PER WEEK: 40
- OFFER STARTING DATE: 01/09/2022
- LOCATION: Spain › Cerdanyola (Barcelona)

How to apply

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All applications must be sent to **susana.liebana@imb-cnm-csic.es**, with the subject *Seeking for Ukrainian Researcher to join SPEED Research Group*. Applications must include: CV.

Deadline for applications	10/06/2022 12:00 - Europe/Athens
Expected start date	01/09/2022

- This offer can be found on: https://www.imb-cnm.csic.es/en/about-center/careers/open-positions
- More information on IMB-CNM: https://www.imb-cnm.csic.es/en/