Postdoctoral Research Associate position

The Laboratory of Metalloprotein Biology, newly located at the Institute of Biochemistry and Biophysics Polish Academy of Sciences and headed by Dr. Kevin Waldron, seeks a productive, creative, and highly motivated Postdoctoral Research Associate. The successful candidate will join a collaborative, interdisciplinary team studying the structure, function and evolution of copper proteins from pathogenic bacteria.

It's estimated that approximately one-third of all proteins, and nearly half of all enzymes, require an essential metal ion to function (Waldron *et al.*, *Nature* 2009). For this reason, the immune system uses its ability to control metal availability as a tool to control invading pathogenic bacteria. During infection, bacteria can experience extreme starvation for some metals or toxicity caused by localized metal excess, making the bacteria's ability to adapt to metal fluctuations (Giachino et al., 2020) crucial for a pathogen's ability to cause infection (Focarelli et al., 2022).

In this project, we will develop methods for the study of the structure and molecular function of a bacterial protein involved in copper storage (Vita et al., 2015) in a pathogenic bacterium. We will use biochemical and structural biology methods to investigate how the protein acquires and releases metal ions, and use mutagenised bacterial strains to detect phenotypes caused by loss of genes that control metal homeostasis.

Job description:

The successful applicant will be responsible for executing laboratory-based research within the project. They will express, purify and characterise proteins, perform site-directed mutagenesis, and perform microbiology experiments on bacterial strains lacking targeted genes to detect growth phenotypes and using fluorescence reporter constructs. Training will be provided in necessary protocols and techniques.

Requirements for the candidate:

• A PhD in biochemistry or a related subject. There is no limit of years post PhD completion. Postdoctoral experience will be an advantage.

• A proven track record in publishing high quality research.

• A demonstrable passion for science and research.

• Ability to work both independently and as part of a collaborative and interdisciplinary team, including training junior researchers in lab methods and collaborating in team goals.

• Demonstrable, hands-on experience in biochemistry methods for the study of metalloproteins in vitro.

• Demonstrable, hands-on experience in working with pathogenic bacteria and an understanding of biological processes at the host-pathogen interface (in plants or animals).

• A solid working knowledge of bacterial copper homeostasis.

• Proficiency in spoken and written English.

• Solid knowledge in molecular biology methods.

We offer:

• A full-time employment contract for 11 months (including 3 months probationary period), starting from 1st February 2026 or as soon as possible thereafter.

• Gross salary of 7042,22 PLN/month. Net salary depends on individual circumstances influencing tax.

• A position with 100% focus on research (no teaching obligations) in a leading, well-equipped, recently refurbished laboratory and within a dynamic and interdisciplinary team.

• Extensive opportunities for training, including potential visits to collaborating laboratories to work with leading experts in diverse fields and technologies.

• Good culture of work-life balance.

Informal inquiries:

Informal inquiries are very welcome. Please send an email to kwaldron@ibb.waw.pl including any questions, a brief description of your motivation and other relevant information. Please include the subject heading "NIH Postdoc application" in your email.

How to apply:

The application, in English, should be sent via recruitment platform:

https://system.erecruiter.pl/FormTemplates/RecruitmentForm.aspx?WebID=cd20b842dcb9456fb1057f1bce782e7e

Applications must be written in English, and should contain a scientific CV (no more than 5 pages), a cover letter with a description of the applicant's key achievements and motivation (up to 2 pages), and contact details for 2 potential academic referees, including your PhD supervisor. All documents should be merged in a single pdf file.

In case of any difficulties please contact: recruitment@ibb.waw.pl

Selected candidates will be invited for an interview (possibly on-line). Applications submitted after the deadline will be still considered if the position is not filled.

Please include the following statement in your application: "I hereby give my consent for the processing of my personal data by the Institute of Biochemistry and Biophysics PAS with its seat in Warsaw Pawińskiego 5a, 02-106 hereinafter referred to as the Institute for the purpose of the recruitment process and for future recruitment processes conducted by the Institute under Art. 23 ust 1 pkt 1 of the Personal Data Protection Act dated on 29 August 1997, consolidated text: Journal of Laws 2016, item 922 with further amendments and under Art. 6 ust.1 lit. a of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such GDPR (Dz. U. UE. L. z 2016 r. Nr 119)".

Closing date: February 3rd, 2026

The evaluation process will start immediately upon receipt of the applications. Selected candidates will be invited for interview. The competition may be extended until the finding of a suitable candidate.