

FORM FOR EMPLOYERS

INSTITUTION: Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences in Wrocław, Laboratory of Glycobiology

CITY: Wrocław

POSITION W/M: Post-doctoral Researcher (as a specialist)

DISCIPLINE: Biological Sciences

POSTED: 1 October 2026

EXPIRES: 31 October 2026, 23:59

WEBSITE: <https://hirszfeld.pl/>

KEY WORDS: exosomes, Shiga toxins, prevention, therapy, Gb3

JOB OFFER

Post-doctoral researcher (as a specialist)

National Science Centre, Poland

SONATA 21 (grant no. UMO-2025/59/D/NZ7/00001)

Institution/organizational Unit: Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences in Wrocław, Laboratory of Glycobiology, website: <https://hirszfeld.pl/>.

Expected competition result date: 30 November 2026

Planned employment start date: 1 January 2027 or 1 February 2027

Type of contract: full-time employment contract

Employment period and salary: 6 months, with the possibility of extension up to 25 months. Monthly salary: PLN 9,650 gross.

The employee will also be eligible for an employee benefit package (medical care).

Requirements:

1. A PhD degree in biological sciences or a related discipline. The PhD degree should have been awarded in an EU, EFTA or OECD country or officially recognized in Poland no later than the date of employment in the project.
2. Fulfilment of the National Science Centre (NCN) eligibility criterion concerning the date of obtaining the doctoral degree – the PhD degree must have been obtained in the year of employment in the project or within 12 years before 1 January of the year of employment in the project, taking into account possible extensions of this period in accordance with the applicable NCN regulations: https://ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2025/uchwala72_2025-zal1-2.pdf.
3. Documented experience in culturing human-derived cells, including experience with 2D and/or 3D cell culture.
4. Experience in the isolation and characterization of extracellular vesicles (EVs) derived from mammalian cells using various isolation methods and analytical techniques, particularly DLS, Western blot, dot blot, TEM and flow cytometry (FACS).

5. Experience in preparing microscopy samples from cell cultures and/or spheroids, including immunofluorescence and immunohistochemical staining and their analysis using fluorescence and/or confocal microscopy.
6. Strong motivation for scientific research, scientific curiosity and independence in carrying out assigned tasks, as well as willingness to collaborate within the research team and with national and international partners.
7. Good communication skills and practical command of English, particularly the ability to read and analyse scientific literature and prepare scientific publications and other research materials.
8. Documented scientific achievements, particularly publications in peer-reviewed scientific journals.

Additional advantages

1. Experience in culturing Caco-2, HK-2 and/or HEK293T cells.
2. Familiarity with research methods such as:
 - flow cytometry, including EV analysis using latex beads;
 - DLS and/or NTA;
 - functional assays using human cells and ELISA-based methods, e.g. cytokine determination in cell culture supernatants.

Project description

The project aims to develop a novel strategy for the neutralization of Shiga toxins using Gb3-FSL conjugates and small extracellular vesicles (sEVs) modified with Gb3-FSL. The research will include the isolation and characterization of sEVs, their functionalization, analysis of their interactions with Shiga toxins, and evaluation of their protective effects in human Caco-2 and HK-2 cell models. The project combines research in extracellular vesicle biology, glycobiology and cell biology.

Responsibilities within the project

1. Culturing and optimization of Caco-2, HK-2 and HEK293T cell cultures, including both 2D and 3D cultures, with particular emphasis on spheroid models.
2. Isolation of small extracellular vesicles (sEVs) from Caco-2, HK-2 and HEK293T cell cultures using ultracentrifugation and/or chromatographic methods, followed by their characterization using DLS, Western blot, dot blot, TEM and flow cytometry.

3. Preparation and characterization of functionalized sEVs and evaluation of their biological properties using Caco-2 and HK-2 cell models, including:
 - flow cytometry analysis;
 - assessment of inflammatory responses, including cytokine measurements;
 - assessment of cell viability;
 - microscopic analysis using fluorescence microscopy.
4. Independent planning, execution and documentation of experiments, as well as collection and analysis of scientific data.
5. Analysis and preparation of research results for scientific publications, reports and conference presentations, including poster presentations.
6. Collaboration with members of the research team and scientific partners, as well as participation in the ongoing organization of research activities.
7. Scientific supervision of interns, trainees and students involved in the project.

Required documents

1. A cover letter describing the candidate's scientific interests, previous achievements and research experience.
2. CV including information on education, professional and scientific experience, publication record, competencies and skills.
3. A copy of the diploma confirming the award of the PhD degree.
4. Optionally, other documents confirming experience and qualifications relevant to the implementation of the project.

For additional information, please contact PhD Krzysztof Mikołajczyk, e-mail: krzysztof.mikolajczyk@hirszfeld.pl. Applications containing the complete set of documents should be submitted by **31 October 2026** by e-mail to:

kadry@hirszfeld.pl

and

krzysztof.mikolajczyk@hirszfeld.pl

Application subject: post-doc LG

The successful candidate will be selected through an open competition in accordance with the “Regulations on the allocation of funds for the implementation of tasks funded by the National Science Centre within research projects”, established by Resolution No. 72/2025 of the NCN Council of 11 September 2025.

The competition will be concluded by **30 November 2026**. The anticipated starting date of employment in the project is **1 January 2027** or **1 February 2027**.

Selected candidates will be informed by e-mail about the date of the interview. The selection committee reserves the right not to select any candidate in the competition.

Detailed employment conditions will comply with the internal regulations of the Institute and will be specified in the employment agreement concluded between the candidate and the Director of the Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences in Wrocław.

Candidates interested in participating in the recruitment process are requested to include the following clause in their CV:

“I hereby consent to the processing of my personal data contained in the application documents for the purposes of the current recruitment process conducted by the Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, based in Wrocław.”

Personal data protection rules applicable at the Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences in Wrocław:

1. In connection with the recruitment announcement concerning the implementation of the NCN project UMO-2025/59/D/NZ7/00001 and for the purpose of concluding an employment contract, the HIRSZFELD INSTITUTE OF IMMUNOLOGY AND EXPERIMENTAL THERAPY, POLISH ACADEMY OF SCIENCES IN WROCLAW, ul. R. Weigla 12, 53-114 Wrocław, informs that, pursuant to 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 data, and repealing Directive 95/46/EC (General Data Protection Regulation, hereinafter “GDPR”), it is the Controller of personal data.

2. Personal data will be processed pursuant to Article 6(1)(b), (c) and (e) of the GDPR for purposes related to concluding an employment contract concerning the implementation of the NCN project UMO-2025/59/D/NZ7/00001, securing and administering the contract, and, where applicable, pursuing or defending claims arising from it.
3. The personal data of the other party may be transferred to entities processing personal data, including entities providing IT systems used for the implementation of the agreement, as well as archival and legal services. Such entities process personal data on the basis of appropriate data-processing agreements and exclusively in accordance with the Controller’s instructions. Personal data may also be disclosed to entities authorised under applicable law, including tax administration authorities.
4. Personal data of persons submitting applications will be processed for the duration of the recruitment process and will be destroyed after its completion.
5. Personal data of the person with whom an employment contract within the project is concluded will be processed for the duration of the agreement and, following its termination, for the period associated with the expiry of claims related to the agreement and for the periods required by tax and financial reporting regulations.
6. Providing personal data is voluntary but necessary for concluding the employment contract and enabling the Employer to fulfil its obligations as a payer. Failure to provide the required personal data will make it impossible to conclude the agreement.
7. The candidate has the right to access their personal data and the right to rectify, erase or restrict the processing of such data, as well as the right to object to processing where there are no longer legal grounds for such processing.
8. Every person also has the right to lodge a complaint with the President of the Personal Data Protection Office.
9. Personal data will not be subject to profiling or automated decision-making.

10. In matters concerning the processing of personal data, data subjects may contact the Data Protection Officer appointed by the Controller by e-mail at iod@hirszfeld.pl or by writing to the Controller's registered address specified in point 1.