

Vacancy

Our Mission: *Discovering and describing life and earth - with people, through dialogue.*

The **Museum für Naturkunde Berlin (MfN)** is an excellent and integrated research museum of the Leibniz Association with an international reputation and globally networked research infrastructure. It is active in three closely interlinked fields: collection-based research, collection development and cataloguing, and research-based public and educational work. Over the next ten years, the Museum für Naturkunde will realise its plan for the future. New laboratories and jobs for cutting-edge research will be created. At the same time, one of the world's most comprehensive natural history collections with over 30 million objects will be housed in modern collection buildings and completely digitized in the process. The implementation of the Future Plan, funded with a total of 660 million euros from the Federal Government and the State of Berlin, will only succeed with strong interdisciplinary national and international partners.

Become part of our team

- Position:** PhD position in the framework of the HORIZON EUROPE Marie Skłodowska-Curie (f/m/d) doctoral network ZooCELL: “The evolution of cellular phenotypes in animal diversity: multi-disciplinary training in 3D cellular reconstruction, multimodal data analysis and science outreach”
- Duration:** 36 months, the suggested starting date for the PhD fellow is February 1st, 2025
- Salary level:** a monthly gross salary of about 3.900 € to 4.400 € depending on family status (including health care and social security benefits)
- Code:** 63/ 2024

Project Description:

ZooCELL DC9 Project: “The frontal nervous system and receptor cells in Lophophorates”

Background: Planktonic larvae of lophophorates (brachiopods, phoronids) show a broad range of behavioral traits in response to their environment (phototaxis, defense behavior, chemotaxis etc.) facilitated mainly by parts of the nervous system concentrated in the frontal part of the larval body. These include e.g. larval eyes and the apical organ. In brachiopods three different developmental conditions apply: Free swimming lecithotrophic larvae, brooded lecithotrophic larvae, and free-swimming juveniles. They all differ in morphology, behavior, lifetime, and environmental cues they are exposed to. Nonetheless, brachiopods are monophyletic and a common origin of neuronal elements involved in orientation is to be expected. Phoronids and brachiopods are sister taxa, hence the inclusion of horseshoe worms as an outgroup for comparison.

Objectives: The candidate will conduct an in-depth study of the morphology of the frontal nervous system and esp. apical organs based on serial electron microscopy (TEM, FESEM) to 3D-reconstruct (1) the shape of individual neuronal cells in apical organs and the surrounding nervous system incl. receptor cells, (2) the interconnection between these and the frontal nervous system, and (3) the overall architecture of these sensory structures. Supported by scRNA-seq data partly gathered during the preceding project EvoCELL, immunohistochemistry and new AI-technologies the candidate will characterize developmental stages of the articulate brachiopod *Terebratalia transversa* and if possible the inarticulate species *Novocrania anomala* to be collected at Bergen, Norway, and compare those to data on other lophophorate and lophotrochozoan groups investigated within work packages 1-4 of the ZooCELL network. The goal is to finally decipher interdependencies between nervous system morphology (plasticity) and developmental and environmental cues in these groups and to get a better understanding about the evolution of nervous system associated cell types across the board of lophotrochozoan animals. Additionally, as the MfN coordinates the science outreach part of the project, the candidate will be involved in the setup and maintenance of the project’s homepage and activities related to science communication.

Your profile

The candidate preferably has a background in evolutionary morphology of invertebrates and is familiar with high-resolution microscopy techniques, such as TEM, SEM, CLSM etc. Knowledge in molecular biology and a strong interest in science communication are advantageous. Applicants must have a Master's degree or equivalent to be eligible to enroll as a PhD-student at Humboldt-University Berlin. To be eligible for the fellowship, candidates must not be already in possession of a doctoral degree. Researchers who have successfully defended their doctoral thesis, but who have not yet formally been awarded the doctoral degree will not be considered eligible. Candidates of all nationalities may apply, but they must not have resided or carried out their main activity (work, studies, etc.) in Germany for more than 12 months in the 3 years immediately prior to their appointment (short stays such as holidays or compulsory national service are not taken into account).

Special notes:

In support of equal rights applications from qualified women are particularly welcome. Handicapped individuals will be given preference in cases of identical qualifications.

Applicants should submit a brief account of their research interests and motivation, a CV, names and contact information of two reference persons, written proof of successful completion of bachelor's and master's degrees or an official confirmation that his/her master's thesis has been submitted, relevant certificates and references, and a list of publications or other scientific/related work (preferably compiled in a single pdf file).

We look forward to receiving your application with the usual documents (cover letter, curriculum vitae, certificates) by **30.11.2024**, preferably via our online application portal.

<https://www.museumfuernaturkunde.berlin/en/jobs-and-career/jobs>

For information on the application procedure, please contact recruiting@mfn.berlin.

Further informations

Privacy Policy:

By sending your application, you provide us with your information for the purpose of processing your application by the Museum für Naturkunde. Your data will be kept strictly confidential at all times. Once we have received your application documents, they will be entered into our database. Your data will be stored on our server. In doing so, we observe the provisions of the data protection laws.

[Information about the handling of applicant data at the MfN](#) (in German)

und

[Privacy policy for the MfN website](#) (in German)



Family Policy:

The Museum für Naturkunde has set itself the goal of promoting a work-life balance and has been awarded the certificate berufundfamilie audit of berufundfamilie gGmbH - an initiative of the Hertie Foundation.

Further information can be found under:

<https://www.naturkundemuseum.berlin/de/jobs-und-karriere/arbeiten-am-museum-fuer-naturkunde/audit-berufundfamilie> (in German)