UFZ HELMHOLTZ Centre for Environmental Research

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UFZ Call for Expression of Interest –

Helmholtz Investigator Group on Planetary Solutions

The Helmholtz Centre for Environmental Research (UFZ) has excellent reputation as an international competence center for environmental sciences. We are part of the largest scientific organization in Germany, the Helmholtz association. Our research seeks to strike a balance between societal development and the long-term protection of our natural resources.

The UFZ invites Expressions of Interest from outstanding early-career scientists (2-6 years post PhD) seeking to establish an independent Helmholtz Investigator Group at the UFZ. The selection follows a two-stage process:

1. Initial selection by the UFZ, identifying candidates with exceptional scientific excellence, strategic fit to our mission and leadership potential.
2. Final selection by the Helmholtz Association involving an international expert panel.

Successful candidates will be supported in submitting a competitive proposal to the Helmholtz Association and in building a high-visibility, internationally competitive research group at UFZ.

Announcement

The Helmholtz Center for Environmental Research (UFZ) invites Expressions of Interest from outstanding early-career scientists (2-6 years post PhD) to apply for their own *Helmholtz Investigator Group* (Investigator Track/ HIG) along one of our thematic tracks. Successful Helmholtz Investigator Groups will be hosted at UFZ, receive five years of dedicated funding, and - subject to a positive evaluation at the end of the funding period - be offered a permanent position.

Thematic track

The UFZ advances planetary solutions to climate change, biodiversity loss and pollution through integrative, cross-disciplinary research.

Within the Helmholtz Investigator Group Call, we invite proposals that strengthen UFZ's core expertise addressing one of the following themes for which we seek experts to strengthen our future research program.

I – Predictive Limnology

The UFZ Research Unit *Water Resources and Environment* is establishing a new research direction in Predictive Limnology to advance the forecasting of aquatic ecosystem dynamics under changing conditions.

Aquatic ecosystems are highly complex and difficult to predict, limiting our ability to anticipate algal blooms, fish kills, biodiversity loss, and other ecological changes. The new research group will develop innovative methodologies for ecosystem forecasting in rivers, lakes, and reservoirs, including modern data-fusion approaches to strengthen predictive capabilities.

The research will contribute to the RU Water strategy on predictive hydro-ecology and future-proof water

management and UFZ's strategic focus on fostering ecosystem resilience. The group will collaborate closely with research activities in hydrological modelling, drought forecasting, climate impacts, advanced environmental monitoring, and the *eLTER network*.

We seek independent and creative researchers that develop this emerging field by raising an own research team, connect their research to other UFZ teams and co-develop potential products together with stakeholders.

Contact: Karsten Rinke *(karsten.rinke@ufz.de)*

II – Chemical Pollution and Freshwater Ecosystem Resilience under Global Change

The UFZ Research *Unit Chemicals in the Environment* invites applications from outstanding early-career scientists to establish an investigator group on chemical pollution and freshwater ecosystem resilience under global change. We seek candidates investigating how chemical pollution interacts with climatic, hydrological and land-use-related stressors and how these interactions affect freshwater communities, ecosystem functions, resistance and recovery.

Candidates may bring a focused profile in ecotoxicology, molecular and evolutionary ecology, eDNA-based biodiversity monitoring, community and food-web ecology, or ecological modelling. Their research program should advance mechanistic or predictive understanding of multiple-stressor effects across biological scales by linking experiments and observations with mechanistic, statistical or AI-supported modelling.

The successful candidate is expected to develop an independent research program centered on substantial use of the UFZ *stream mesocosm facility* with its 47 artificial streams. *MOBICOS mobile stream laboratories* may provide complementary opportunities to support experiments and validation studies.

Contact: Wibke Busch *(wibke.busch@ufz.de)*

III – Digital Hydro-Twins for Water Resources Management

The UFZ Research Unit *Smart Models and Monitoring* has a leading position in integrating observation, high-resolution modelling and state-of-the-art data analysis approaches to understand and predict environmental change and support resilient management of landscapes and water resources across regional to global scales.

We invite researchers to develop next-generation Digital Hydro-Twins that integrate water management options into process-based hydrological models while also exploring the potential of AI. The aim is to assess changing human water demands, and to enable the exploration of alternative management options.

The thematic track contributes directly to the UFZ Research Focus Resilient Ecosystems and seeks innovative, scalable approaches that provide solutions for sustainable and resilient water resources management.

Contact: Sabine Attinger *(sabine.attinger@ufz.de)*

We recommend discussing your project idea with the respective contact person before applying.

Eligibility

Due to Helmholtz requirements, you will be eligible to apply if you have between two and six years of postdoctoral experience. Periods of parental leave and childcare responsibilities are taken into account; for further details, please refer to the *official call*. Additional requirements include at least six months of international research experience outside Germany during the doctoral or postdoctoral phase, as well as an exceptionally strong academic track record and a high-quality draft proposal aligned with one of the thematic tracks outlined above.

Selection Process

The selection follows a two-stage process:

1. Initial selection by the UFZ, identifying candidates with exceptional scientific excellence, strategic fit to our mission and leadership potential
2. Final selection by the Helmholtz Association involving an international expert panel

The initial selection by the UFZ will be based on the following criteria:

1. Outstanding scientific achievements and research experience of the candidate
2. Quality and strength of the submitted project summary
3. Compatibility with one of the thematic tracks outlined above
4. Leadership potential, in particular the ability to supervise international and diverse doctoral researchers

Please send a letter of intent, a project summary referring to one of the thematic tracks (not exceeding 6000 characters), a full CV and publication list to *hartwig.pohl@ufz.de* by **10 December 2026**.

Interviews will be scheduled individually for each thematic track and are expected to be completed by 08 January 2027. By end of January, successful candidates will be informed by the UFZ executive management and asked to provide a jointly developed full proposal until 3 May 2027.

Website information:
www.ufz.de/helmholtz-investigator-groups