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IUF
LEIBNIZ-INSTITUT FÜR UMWELT-MEDIZINISCHE FORSCHUNG

The IUF – Leibniz Research Institute for Environmental Medicine investigates the molecular mechanisms through which particles, radiation and environmental chemicals harm human health. The main working areas are environmentally induced aging of the pulmonary system and the skin as well as disturbances of the nervous and immune system. Through development of novel model systems, the IUF contributes to the improvement of risk assessment and the identification of novel strategies for the prevention / therapy of environmentally induced health damage.

The new junior research group *Biostatistical Methods for Environmental Medicine* led by JProf. Staerk at the IUF (Düsseldorf, Germany) is hiring a

Postdoctoral Researcher (f/m/d) in the area of Biostatistics and Statistical Learning

Our group focuses on the development and application of biostatistical methods to tackle a wide array of research questions related to environmental health. Interdisciplinary projects span from genomics and environmental epidemiology to clinical medicine. A special focus is on developing scalable statistical learning methods for variable selection, estimation and prediction in high-dimensional data scenarios with a large number of variables, enabling the integration of genetic and environmental factors to predict health outcomes. We also specialize in complex regression modelling, including temporal and spatial effects. Our aim is to integrate new methodological advancements into environmental medicine and epidemiology to better understand disease mechanisms and enhance public health strategies.

Your tasks

- Methodological research in Biostatistics and Statistical Learning
- Development, implementation and application of new statistical methods
- Biostatistical contributions and data analysis in diverse interdisciplinary collaborations
- Writing of manuscripts for publication in international journals
- Presenting your work in internal meetings and at scientific conferences
- Statistical consulting for project partners
- Mentoring students and future lab members

Your profile

- Doctoral degree in Statistics, Mathematics, Data Science, Computer Science or a related field with a strong background in Statistics
- Hands-on experience in Statistical Modelling and/or Computational Statistics
- Strong interest in the development and application of new statistical methodology to address diverse questions in environmental health
- Enthusiasm for interdisciplinary collaborations with researchers from different fields, including biologists, epidemiologists and clinicians
- Proficiency in statistical programming with R and/or Python
- Prior experience in Machine Learning or Computational Biology is a plus, particularly in the handling and analysis of large-scale data (e.g., genetic data)
- Independent, self-driven and solution-oriented working style, with a strong ability to collaborate on team projects and with partners
- Excellent communication skills in English (knowledge of German is a plus)

We offer

- A rewarding position in a leading international research institute with scientific and societal impact in environmental medicine
- Opportunity to develop your own research profile and to make a decisive contribution to a newly established research group
- Possibility for habilitation
- Access to the IUF Postdoc Program, providing various opportunities for continued education
- Institute with a modern state-of-the-art infrastructure
- A friendly, open and stimulating working environment
- Flexible working hours and the possibility of mobile work (availability for regular on-site collaboration and research activities is required)
- 30 days of vacation according to the collective agreement

The position starts as soon as possible and is initially limited to 2 years, with the option of extension. The weekly working time is 39 hours and 50 minutes. Remuneration is given in accordance with the provisions of the collective agreement for the employees of the states (TV-L, group E13). Females are especially encouraged to apply, and in the case of equal qualification, handicapped persons will be given preference. The IUF is committed to family-friendly working conditions and equal gender policy.

Please submit your application (in English or German) by e-mail as one pdf-file with the reference “Postdoc in Biostatistics” in the subject line to bewerbung@iuf-duesseldorf.de .
Your application should consist of a letter of motivation, CV, university certificates and one representative sample of your research (e.g., a paper, preprint, or software documentation).

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Application documents submitted by post are not returned. Documents for applicants not considered are destroyed appropriately once the procedure is complete.