

Job announcement No. 24/2023

The department Epidemiology led by Prof. Dr. Gérard Krause at the Helmholtz Centre for Infection Research (HZI) in Braunschweig, Germany is offering a position as

Doctoral Researcher (f/m/d)

Project title: PCR-4-ALL – Epidemiological modelling and Pandemic Preparedness

Project description:

The Department of Epidemiology consists of more than 40 employees. Our research focuses on the fundamental relationships between the occurrence, spread and prevention of infectious diseases in the human population at national and international level. We are working on the area of immunology and infection as part of the NAKO health study (www.nako.de). The infrastructure of the department also includes the PhD course "Epidemiology" (www.helmholtz-hzi.de/en/career/phd_programme_epidemiology).

In the "Clinical Epidemiology & Evidence Synthesis" team (Head: Dr. Berit Lange), we conduct clinical and population-based epidemiological studies (e.g. <https://hzi-c19-antikoerperstudie.de>), create evidence syntheses and meta-analyses (www.serohub.net) and investigate the dynamics of respiratory infectious diseases within the framework of large modeling networks (www.respinow.de). At the German Center for Infection Research (www.dzif.de) we are active as co-coordinators of the "Translational Infrastructure Bioresources, Biodata and Digital Health" unit. In the "Climate, Cohorts and PIA" team (leader: Dr. Stefanie Castell), we focus on the area of "digital epidemiology", investigating the determinants and consequences of infections as well as connections with climatic changes. Projects in the field of multi-omics and long-term cohort studies are also integrated. The study center of the NAKO health study in Hanover also belongs to the team. A large part of the research activity involves the eResearch system PIA (<https://info-pia.de>). This has been developed as a free and open source software solution (FOSS) by us as the product owner since 2017 (<https://github.com/hzi-braunschweig/pia-system>). PIA is continuously further developed using a Scrum process, modern developments in the IT area such as Kubernetes and Green Coding are also discussed.

Both teams are involved in the EU project **PCR-4-ALL** (area: Pandemic Preparedness). In addition to modelling, new laboratory methods of PCR testing are being piloted in a cohort and their feasibility is being evaluated in a population-based cohort of the general population. As a PhD student in this project, the job holder will carry out epidemiological modelling on the requirements for these laboratory methods, adapt them during the course of the project and be involved in setting up and maintaining the test cohort. The eResearch tool PIA will be used in the cohort, in which the further development in the agile Scrum team will also be accompanied by the job holder. The aim is for the job holder to do a doctorate in the Department's PhD program Epidemiology (www.helmholtz-hzi.de/en/career/phd_programme_epidemiology).

Your tasks include:

- Infection epidemiological modelling
- Data preparation and management with R
- Analyses in the field of feasibility studies with R or Stata
- Publications of the results
- Presenting the results at conferences
- Assistance with:
 - Preparation and mentoring of the cohort
 - Questionnaire development and digital implementation of the study
 - Compilation & submission the documents for the ethics committee & for the data protection officer
 - Further development of the software
 - Reporting

Qualifications:

- Master's Degree/Diploma or equivalent in health sciences, epidemiology, mathematics, public health, statistics, data science or (bio)informatics, or a related field
- Excellent German and good English communication skills (written and spoken)
- Ability to work independently and as part of an international team
- Confident use of MS Office programs
- Very good knowledge of statistics and R/ STATA
- Independence and organizational talent
- Positive and committed demeanor
- Flexibility and ability to work in a solution-oriented manner

Disabled persons are given preference in the case of equal professional qualification. The HZI aims for professional equality between women and men. The position is suitable for part-time work.

We offer:

- A lively scientific community
- 30 days vacation, (24.12. & 31.12. are considered as completely free days)
- An annual additional payment (Weihnachtsgeld) analogue to § 20 TVöD
- Social security included
- DO IT- PhD initiative
<https://www.helmholtz-hzi.de/de/karriere/do-it-doktorandeninitiative>
- Welcome Office
- Family Office, Child Holiday Care

The successful candidate will be integrated in the PhD Programme Epidemiology which provides an innovative structured PhD programme within the field of Infection Research www.helmholtz-hzi.de/en/career/phd_programme_epidemiology.

Starting date:	As soon as possible - initial contract for 3 years
Salary:	TVöD/Bund E13 (65%)
Probation period:	6 months
Published on:	January 19 th , 2023
Closing date:	March 2 nd , 2023
Application:	Applicants are required to complete the online application form here: https://hzi.opencampus.net/ (Please select Job No. 24/2023).

For more details regarding the position, please contact Dr. Carolina J. Klett-Tammen via email: Carolina.Klett-Tammen@helmholtz-hzi.de, or by phone: +49 531 6181-3122.

Further information about the institute and the research group of Prof. Dr. Gérard Krause can be found on our website: <https://www.helmholtz-hzi.de/en/research/research-topics/bacterial-and-viral-pathogens/epidemiology/our-research/> and <https://info-pia.de/>