

Job advertisement no. 128/2025

The Junior Research Group **Precision Microbial Genomics (PMIG)** led by Dr. Jakob Wirbel, at the Helmholtz Centre for Infection Research (HZI) in Braunschweig, is offering a

PhD position (f/m/d)

The Helmholtz Centre for Infection Research GmbH (HZI) is part of the Helmholtz Association of German Research Centres, the largest scientific organization in Germany. At HZI, researchers focus on developing strategies to improve the fight against infectious diseases. Their aim is to create new methods for prevention, diagnosis, and treatment of infectious compounds by studying both bacterial and viral pathogens and their interactions with the immune system, while also investigating new compounds with potential therapeutic effects.

Project: Computational tool development for longitudinal metagenomic data

The human microbiome, a complex community of microorganisms colonizing the human host, has been recognized as an important determinant for health and disease. Both the composition and the genetic makeup of this community are not static: horizontal gene transfer, for example, can distribute antibiotic resistance or virulence factors across different bacterial species. The Precision Microbial Genomics (PMIG) group is interested in developing computational tools and analysis approaches to gain a deeper understanding of microbial genome variation over time. The candidate will work on the analysis of longitudinal metagenomic data and develop computational approaches to investigate the emergence of genomic variants, strain replacement, phage infection and induction, or horizontal gene transfer over time. The PMIG group is located at the Braunschweig HZI campus.

Qualifications:

- Master's Degree/Diploma in Bioinformatics, Computational Biology, or a related field
- Excellent English communication skills (written and spoken)
- Ability to work independently and as part of a diverse, inclusive, international, and highly collaborative team
- Proficient in at least one programming language, preferable python or R
- Previous experience with UNIX filesystems and computing in HPC environments
- A strong interest in microbial genomics or microbiome research

We offer:

- Modern laboratories, incl. BSL3
- State-of-the-art analytical instrumentation
- Ample biological profiling platforms (*in vitro* and *in vivo*)
- A lively scientific community and a corporate culture of appreciation & promotion of equal opportunities
- 30 days of 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](#)
- Welcome Office
- Buddy System for new doctoral researchers
- Family Office, Child Holiday Care
- One of the strongest research region in Europe

- Central location within Germany, various metropolitan areas (i.e. Berlin, Hamburg, Frankfurt, Hannover) and recreational areas (i.e. Harz, Lüneburg Heath, North Sea) can be reached very quickly and easily by Train – it is also close to the airport Hannover.

The successful candidate will be part of the [HZI | HZI Graduate School](#) which provides an innovative structured PhD programme within the field of Infection Research.

People with severe disabilities and equivalent professional qualifications who are suitable for the position are given preference. In order to protect your rights, we ask you to provide us with a clearly recognizable reference to the existence of a degree of severe disability in your cover letter or resume.

The HZI is actively committed to equality, diversity and integration. For this reason, the HZI pursues the goal of professional equality between women and men. The position is suitable for part-time work.

Starting date:	As soon as possible - Initial contract for 3 years
Salary:	TVöD E13 (65%)
Probation period:	6 months
Place of work:	Braunschweig
Published on:	28.11.2025
Closing date:	16.12.2025

For more details regarding the position, please contact Dr. Jakob Wirbel via e-mail: jakob-wirbel@helmholtz-hzi.de.

How to apply:

When sending us your application documents, **please confirm** that you have read our privacy policy and that you agree to the processing of your personal data. Please use the text module in our [privacy policy](#) for this purpose. **Without these declarations we cannot consider or process your application** and will immediately delete any application documents already received after the application deadline.

Please include a cover letter, resume, (employment) references, certificates, and (if available) work samples or reference projects (such as a link to your Github account) with your application materials. Please refrain from sending a photo.

Please send your complete application, quoting the **reference number 128/2025**, to the Helmholtz Centre for Infection Research GmbH, Department People & Culture, Inhoffenstr. 7, 38124 Braunschweig, Germany or by [e-mail](#). If you send your application in electronic form, please provide a **summary in one single (1) pdf document**.

We look forward to receiving your application!