Job posting

**Type of position**
- scientific
- administrative

**Target group**
- graduates
- post docs
- other

**Title**
PhD Student in Computational Biology

**Institution**
The Department of Computational Biology for Infection Research at the HZI studies the human microbiome, viral and bacterial pathogens, and human cell lineages within individual patients by analysis of large-scale biological and epidemiological data sets with computational techniques.

The lab is part of the Helmholtz Center for Infection Research, the Braunschweig Integrated Center for System Biology (BRICS) and Technical University of Braunschweig, Germany. The Helmholtz society is the largest research organization in Germany and ranked 7th among the research institutions in the world. Braunschweig is a centrally located city in Germany, with many scientific institutions, recreational areas, comparably modest costs of living and about 250.000 residents.

**Position**
In our lab, you will work with an international and highly motivated team. You will have the opportunity to attend and present your work on international scientific conferences. Furthermore, the position offers remuneration and social benefits according to TvöD with a fixed-term contract for 3 years.

- **Starting date**: As soon as possible
- **Contract**: Initial contract for 3 years with possible extensions depending on project development
- **Salary**: TVöD E13, 75% (~38.000 € pre-tax)

**Responsibilities**
The PhD student will work in the context of the project “Paving the way towards individualized vaccination (i.Vacc) - Exploring multi-omics Big Data in the general population based on a digital mHealth cohort”.

The goal of our projects is the development of algorithms and computer-aided methods for personalized infection medicine, particularly clinical metaomics, vaccine and drug design, as well as development of core technologies for meta- and other omics analyses. The methods that we develop make use of concepts from machine learning, phylogenetics and population genetics. The lab co-organizes the Critical Assessment of Metagenome Interpretation challenge, hosts the bioinformatics unit of the German Center for Infection Research, and is well connected to local, national and
international partners from medicine, biology and computer science. Notably, the lab is part of the Cluster of Excellence RESIST funded by Deutsche Forschungsgemeinschaft (DFG), carrying out research on infections in order to specifically help people, for whom disease-causing viruses and bacteria are particularly dangerous. The lab’s projects offer plenty of opportunity for an excellent bioinformatics postdoc to shine.

**Requirements**

The candidate should have a master's degree in bioinformatics, biomathematics, computer science, statistics or similar. A commitment to reproducible research, the ability to work in a highly interdisciplinary research field and good programming skills are obligatory. Prior experience in meta’omics, infection research, statistical learning or with the analysis of NGS data sets is advantageous, but not required.

**Application procedure (deadline etc.)**

Please send your electronic application materials including a letter of motivation, curriculum vitae, copies of your publications if applicable and addresses of two or three referees referring to code i.Vacc/PhD/2020 by E-Mail to:

jobs.BIFO@helmholtz-hzi.de

**Contact**

In case of questions please contact Ms Lorina Reinhardt, Tel.: 0531/391-55270, E-Mail: jobs.BIFO@helmholtz-hzi.de.