

Post-Doctoral Position

Bioinformatician in biomedical data analysis (d/f/m)

Virus-Immunology

The **Heinrich Pette Institute** – Leibniz-Institute for Experimental Virology (HPI), is committed to research on the biology of different human viruses as well as the pathogenesis of viral diseases. The HPI offers the opportunity to perform cutting-edge research in a world-class research environment with excellent technical facilities.

We are looking for highly motivated candidates (d/f/m) with a **background in computational science and interest in infectious diseases** in the group of Dr. Bunders.

Most viral infections enter the host via and cause disease at mucosal tissues. Recently developed organoid systems allow for the first time to study viral infections in primary human intestinal epithelial cells. The overall goal is to investigate the mechanisms by which viruses overcome cell intrinsic immunity in human primary epithelial cells and the consequences of infection for immune recognition by immune cells. The focus of the research will be to understand the molecular basis of viral diseases by integrating high-throughput epigenetic, genomic, transcriptomic (single cell), and proteomic data with patient information and external data. Part of the work will involve the development and application of novel analysis algorithms and software in the field of machine and deep learning (e.g. CNNs, RNNs, VAEs, and GANs). The successful candidates will work in a multidisciplinary environment of scientists, clinicians, and bioinformaticians.

Experience of competitive candidates (d/f/m):

- PhD degree in Bioinformatics, Computer Science or a related field
- Demonstrated experience in omics data integration and analysis
- Proficiency in R, Python and Linux environments
- Experience in machine and deep learning would be a plus (e.g. Tensorflow, scikit-learn)
- Highly motivated with an interest to work in an interdisciplinary team spanning machine learning, Biology, and Medicine

We offer a post-doc position in the group of Madeleine Bunders Applied immunology and disease modelling. Payment and social benefits are in accordance with regulations of the German TV-AVH (salary agreement public service employees).

If you have further questions, please contact Dr. Madeleine Bunders (Email: madeleine.bunders@leibniz-hpi.de).

The HPI promotes the professional equality between all genders. Handicapped applicants with equal qualifications will be given preferential treatment.

Applications should include a CV, a short description of previous experiences and technical skills, and two or three references. Please submit your application by January 9, 2022 to the Personnel Department. Late applications will be considered until the position is filled.

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