

Position Profile for Chinese Applicants running for 2019 Helmholtz – OCPC – Program

PART A (Info about the Position)

Helmholtz Centre and institute: Helmholtz Centre for Infection Research

Title of the project: Investigation of host-microbiota interplay using high resolution NGS based approaches

Project leader: Prof. Till Strowig

Web-address: www.helmholtz-hzi.de/miki

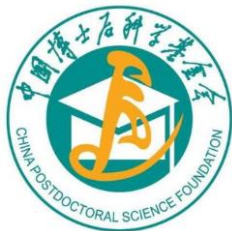
Description of the project (max. half page): The intestinal microbiota has emerged as a central topic in almost all areas of basic and clinically oriented biological research. In my research group we study the interplay of the intestinal microbiota with the host immune system through an interdisciplinary combination of sequencing-driven, microbiological and immunological approaches applying them both to patient cohort studies and *in vivo* disease models using gnotobiotic mice. The main focus is on the remodeling of mucosal immunity by the intestinal microbiota and its consequence on the host's susceptibility towards enteric infections and chronic immune-mediated diseases such as inflammatory bowel disease (IBD). Our long-term goal is to gain a detailed molecular understanding of the underlying mechanisms of host-microbiome crosstalk and to work with clinician scientists to advance these basic science discoveries into translational approaches.

The postdoctoral fellow will be responsible for the bioinformatics analysis of NGS datasets (RNAseq, scRNAseq or metagenomic sequencing) generated in the lab as well as work together with other scientist to develop novel hypothesis and models about how the microbiota shapes host phenotypes.

Required qualification of the post-doc:

- PhD in Bioinformatics (Preferred) or Immunology / Microbiology
- Experience with bioinformatic analysis of NGS datasets of immune cells or microbial ecosystems for instance RNA-seq (bulk or single cell) and/or metagenome sequencing.
- Working knowledge of using Linux at the command line in High Performance Computing and programming skills (R, python, ...) are highly desired
- Additional skills in systems biology, immunology (specifically T cell biology), microbiology or integration of multi-omics datasets are welcome.

PART B (Materials and Procedures)



The Chinese applicants shall submit the following documents to a postdoc station affiliated to a research institution or a university, after passing through the internal selection, the qualified application shall be forwarded to OCPC, and then to Helmholtz for evaluation:

- Detailed description of the interest in joining the project (motivation letter)
- Curriculum vitae, copies of degrees
- List of publications
- 2 letters of recommendation
- Proof of command of English language

PART C (General Conditions)

Additional requirements on the postdoctoral fellows:

- Chinese citizenship from Mainland China (allows application while staying abroad)
- Max. age of 35 years, PhD degree not more than 5 years by submission of application
- Very good command of English language
- Strong ability to work independently and in a team