

The Laboratory for Gut Microbiology of IFIK, University of Bern is offering a

## **Postdoc or PhD student position in intestinal immunology & microbiome research (100%)**

A postdoc or PhD position is available for investigating the anti-bacterial intestinal B cell response. We will functionally study invasive pathogen induced intestinal antibody responses and their bacterial cell biological impact at single B cell specificity level. We will employ single-cell sequencing and phenotyping, monoclonal antibody production, microfluidics-based functional B-cell analysis, germ-free, gnotobiotic and reversible gnotobiotic mouse models, bacterial transcriptomics, and bacterial genome editing. Our aim will be to move from the descriptive characterization of protective antibody repertoires to the detailed mechanistic understanding of their functional effects the bacterial cell.

The project is aligned with our other ongoing research within the framework of the NCCR Microbiomes ([nccr-microbiomes.ch](https://nccr-microbiomes.ch)) where we collaborate with top experts in the fields of microbiology, functional genomics and mathematical modelling to elucidate the fundamental microbial ecological and immunological processes that govern the integration or elimination of individual microbial species into/from complex microbial communities. The NCCR Microbiomes offers all lab members unique training and collaboration with other Swiss laboratories that are international leaders in their fields.

For related previous work by our and our collaborators' labs see following links:

<https://doi.org/10.1038/s41467-020-15891-9>

<https://doi.org/10.1038/s41586-020-2564-6>

<https://doi.org/10.1038/s41586-021-03973-7>

### **Your profile**

Suitable candidates can document excellent study and (for postdocs) PhD research performance and demonstrate a strong scientific knowledge base, scientific integrity, creativity, and a profound understanding of experimental design and data interpretation.

The project requires animal experimentation (mice), and previous exposure to in-vivo work would be advantageous, but not a requirement. Fully appropriate practical and theoretical skills in basic molecular biology, mammalian and bacterial cell biology, and wet-lab techniques in general are expected. Depending on your career stage, additional relevant experience, or expertise in immunology (B cell immunology in particular), computational biology / coding, microbiology, microbiome research, or genomics/transcriptomics would be an asset.

Successful candidates can think independently, are willing to acquire necessary new skills, and are good collaborators and communicators, as this is a team effort.

### **We offer**

Universität Bern, Institut für Infektionskrankheiten, Friedbühlstr. 51, Postfach, 3001 Bern

Excellent working conditions and competitive remuneration.

We are strongly committed to promote equal opportunities independent of gender, ethnicity, age, et cetera. Although the position is fully funded, we fully support your applications for career advancement grants or postdoc/PhD research fellowships.

The Institute of Infectious Diseases ([IFIK](#)) of the University of Bern combines diagnostic services, teaching and research under one roof. It covers the entire spectrum of microbiology combining research and diagnostic expertise in Bacteriology, Virology, Mycology, Parasitology, and Microbiomics and promotes multi-disciplinary science with national and international collaboration partners. As one of the major Swiss microbial diagnostics service providers the IFIK has access to a wide network of clinical research partners with access to clinical samples and provides researchers access to cutting edge automated culture-, nucleic acid-, proteomics- and microscopy-based bacterial detection, isolation and identification methodology.

The Hapfelmeier lab consists of an interdisciplinary and international team of young scientists. The lab is generously supported by institute secretary, purchasing, logistics, and cleaning staff.

### **Term of employment**

Fixed term. One-year-contract, renewable yearly for at least 4 years.

Position is funded for 100% (full-time), but also a reduced-pensum ( $\geq 80\%$ ) is possible to support candidates with children or other (family) obligations.

### **Start date**

Earliest January 2022

### **Application and selection process**

Application documents include a motivation letter, detailed CV (including the names of former mentors and supervisors), publication list (if applicable), relevant diplomas/certificates/University transcripts, and recommendation letters and/or contact information of at least two references.

To apply, please send all the required documents compiled in a **single .pdf document** by e-mail to [siegfried.hapfelmeier@ifik.unibe.ch](mailto:siegfried.hapfelmeier@ifik.unibe.ch).

*Applications will be reviewed continuously from Nov 1<sup>st</sup> and until the position is filled. Please send your application at your earliest convenience.*