



## Job announcement no. 4/2022

The Helmholtz Institute for RNA-based Infection Research (HIRI) is offering a position as

### Postdoc “Fusobacterium & cancer” (f/m/d)

for the research group “RNA Biology of Bacterial Infections” of Professor Jörg Vogel.

The Vogel lab strives to chart the diversity of noncoding RNA functions and RNA-binding proteins in major bacterial pathogens and in the hundreds of different bacteria that make up the human microbiome. We develop new RNA deep sequencing-based techniques to capture the RNA world of any microbe, ideally at the single cell level. We want to understand how and why bacteria use noncoding RNA as a regulator during infection and exploit this knowledge to target pathogens and edit the microbiota with precision.

Fusobacteria, long known as common oral microbes, have recently garnered much attention when found to colonize tumors elsewhere in the body. Clinical and epidemiological research has now firmly linked fusobacteria to enhanced tumor progression, chemoresistance and poor prognosis of several major human cancers (Brennan CA & Garrett WS 2019 Nature Reviews Microbiology). We seek to discover molecular factors and principles that underlie the transition of these commensal bacteria to oncomicrobes, with the long-term goal to develop selective strategies to rid tumors of fusobacteria, while sparing a patient’s protective microbiota. We want to understand the molecular underpinnings of how fusobacteria locate to and stably associate with different sites in the body, and how they interpret and manipulate local environments as host cells respond to fusobacterial colonization of breast and colon cancer tissue. Key to our approach is the introduction of novel RNA-centric, single-cell technologies to assay bacterial and host gene activities and functions within the complex tumor environment with high spatial and temporal resolution (see, for example, our publications by Ponath F et al. 2021 Nature Microbiology; Imdahl F 2020 Nature Microbiology; Staples DAC et al. 2018 Science; Saliba AE et al. 2016 Nature Microbiology; Westermann AJ et al. 2016 Nature).

#### Responsibilities

The candidate will be responsible for designing and conducting biological experiments, interpreting results, analyzing data, and supporting other research activities in a highly collaborative environment. In addition, the ideal candidate will have a strong interest in integrating biology and technology to advance the project.

#### Requirements

- PhD or equivalent in biology or microbiology
- Experiences eukaryotic cell culture
- Highly motivated and independent
- Trained to work in multidisciplinary environments
- Strong written and spoken English language communication skills

#### Requirements (non-essential)

- Knowledge of NGS dataset generation and analysis
- Hands-on experience in handling microorganisms
- Background in models of human cancer *in vitro* and *in vivo*



## We offer

We offer state-of-the-art infrastructure and cutting-edge technologies to promote scientific progress and interdisciplinary collaboration. We focus on a close integration of research and management and strive for excellence inside and outside the laboratory. Promoting equal opportunities and competencies for our employees and celebrating diversity are a matter of course for us. To ensure a good work-life balance, we have created a family-friendly atmosphere with flexible working hours and part-time models, a parent-child room and regular social activities.

Employment is through the Helmholtz Centre for Infection Research (Helmholtz-Zentrum für Infektionsforschung GmbH / HZI) in Braunschweig. The place of work is Würzburg. The position is suitable for part-time work. The HZI strives for professional equality between women and men. Therefore, women are especially encouraged to apply. 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.

<b>Starting date:</b>	As soon as possible. The contract will initially run for two years. However, a longer-term commitment is aspired regardless of full- or part-time.
<b>Salary:</b>	E 13 TVöD Bund
<b>Working time:</b>	39 hours per week
<b>Place of work:</b>	Würzburg
<b>Probation period:</b>	6 month
<b>Published:</b>	22.12.2021
<b>Closing date:</b>	18.01.2022

## How to apply

We look forward to receiving your complete application including a cover letter, CV without picture, certificates, and reference projects. Please provide us with reference names in your CV. Please send your application quoting the reference number **4/2022** to the Helmholtz Centre for Infection Research GmbH, Human Resources Department, Inhoffenstr. 7, 38124 Braunschweig, Germany or by email to [JobsHIRI@helmholtz-hzi.de](mailto:JobsHIRI@helmholtz-hzi.de).

If you send your application in electronic form, please provide a **summary in one single (1) pdf document**. For further information please contact Dr. Tobias Kerrinnes, phone 0931 31 83639, email: [tobias.kerrinnes@helmholtz-hiri.de](mailto:tobias.kerrinnes@helmholtz-hiri.de).

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.

## About the HIRI

The Helmholtz Institute for RNA-based Infection Research (HIRI) is the first institution worldwide to combine ribonucleic acid (RNA) research with infection biology. Based on novel findings from our strong basic research program, our long-term goal is to develop innovative therapeutic approaches to better diagnose and treat human infections. HIRI is a joint venture of the Helmholtz Center for Infection Research (HZI) in Braunschweig and the Julius Maximilians University of Würzburg (JMU) and is located on the Würzburg Medical Campus. More information at [www.helmholtz-hiri.de](http://www.helmholtz-hiri.de).