HIRI HELMHOLTZ Institute for RNA-based Infection Research

Job announcement no. 98/2022

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

Doctoral Researcher (f/m/d)

in the research group “Recoding Mechanisms in Infections” of Junior Professor Neva Caliskan.

Project Title: Investigating the role of frameshift regulatory RNA binding proteins during translation

The Caliskan lab investigates functions and dynamics of RNA molecules in non-canonical translation events, which can affect the interplay between the host and pathogen during infections (Zimmer and Kibe et al, Nature Comm. 2021, Hill, Pekarek et al. Nature Comm. 2021). Current project interests include developing new tools and methods for monitoring translation and RNA:protein dynamics to enable:

- Probing dynamics of RNA-protein complexes at the molecular level
- Single molecule (fluorescence assisted optical tweezers) and ensemble analysis of translation
- High throughput profiling (Ribo-seq, RNA-seq) to decipher RNP functions during infections

Ultimately, Caliskan’s lab seeks to illuminate therapeutic RNA-protein complexes as novel targets to combat infections.

Project description
The project will identify and characterize novel regulatory RNPs and carry out functional, and biochemical assays to decipher details of translational regulation. Also CRISPRi, Ribo-seq, RNA-seq and iCLIP might be carried out to decipher protein functions in the global scale. The project will be carried out in a highly international, collegial, collaborative, and interdisciplinary work environment, with a range of possibilities to develop new skills.

Requirements

- Master’s degree/Diploma in the field of biochemistry, molecular biology, biophysics or a related field of the life sciences engineering
- Strong interest and enthusiasm for understanding role of RNA binding proteins in translation and immune regulation
- Readiness of mind and willingness to familiarize themselves with new topics
- Solid understanding of lab techniques and workflows in RNA and protein biochemistry, RNA biology, ribosome and translation mechanisms, and/or analysis of RNP complexes
- Experience with Python, MatLab or R for data analysis is preferred
- High motivation, problem solving and good organizational skills
- Ability to work independently and as part of an international team
- Strong written and spoken English language communication skills

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 all genders. 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.

The successful candidate will be integrated in the Graduate School of Life Sciences (GSLS) of the Julius-Maximilians-University of Würzburg (JMU) which provides an innovative structured PhD program.
More information at https://www.graduateschools.uni-wuerzburg.de/life-sciences/startseite/.

Starting date:	As soon as possible. Initial term of 1 year with a 2-year extension
Salary:	E 13 TVöD Bund (60%)
Place of work:	Würzburg
Probation period:	6 months
Published:	June 07th, 2022
Closing date:	July 03rd , 2022
Application:	Applicants are required to complete the online application form here: https://hzi.opencampus.net/ (Please select Job No. **98/2022)**

For further information please contact Junior Professor Caliskan, email: neva.caliskan@helmholtz-hiri.de.

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.