Job announcement no. 137/2022

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 seek to illuminate therapeutic RNA-protein complexes as novel targets to combat infections.

**Project description**
The project will identify and characterize novel regulatory RNA binding factors 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 investigate 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

**Requirements**

- Master's degree/Diploma in the field of biochemistry, molecular biology, biophysics or a related field of the life sciences
- 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
- 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
- Solid understanding of RNA biology, translation mechanisms, and/or analysis of RNP complexes

**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. 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 commensurate with reasonable progress
Salary: E 13 TVöD Bund (60%)
Place of work: Würzburg
Probation period: 6 months
Published: August 08th, 2022
Closing date: September 11th, 2022
Application: Applicants are required to complete the online application form here: https://hzi.opencampus.net/ (Please select Job No. 137/2022)

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 site of the Braunschweig Helmholtz Centre for Infection Research (HZI) in cooperation with the Julius-Maximilians-Universität Würzburg (JMU) and is located on the Würzburg Medical Campus. More information at www.helmholtz-hiri.de.