Job announcement no. 197/2022

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 mechanism of translation regulation by the newly discovered frameshift regulatory RNA binding proteins

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

Project description
The project will characterize novel regulatory RNA binding factors and decipher fine mechanistic details of translational regulation using high resolution techniques. 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 independence and new skills.

Qualifications

- 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
- Readiness of mind and willingness to familiarize themselves with new techniques
- Solid understanding of lab techniques and workflows in RNA and protein biochemistry
- Experience with Python, MatLab or R for data analysis is preferred
- Previous experience with single molecule techniques, especially optical tweezers or smFRET is an advantage
- 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

Disabled persons are given preference in the case of equal professional qualification. The HIRI aims for professional equality between women and men. The position is suitable for part-time work.

We offer you

- state-of-the-art infrastructure and cutting-edge technologies to promote scientific progress and interdisciplinary collaboration.
- 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.
- a family-friendly atmosphere with flexible working hours and part-time models, a parent-child room and regular social activities to ensure a good work-life balance
- close ties to both Julius-Maximilians-University of Würzburg (JMU) and the HZI
- unique network of excellent partners to support your research endeavors
- 30 days vacation (24.12. & 31.12. are considered as completely free days)
- an annual additional payment (Weihnachtsgeld) analogue to § 20 TVöD
- social security included

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:	a like E13 TVöD/Bund (65%)
Probation period:	6 months
Working place:	Würzburg
Published:	**November 7th, 2022**
Closing date:	**December 15th, 2022**
Application:	Applicants are required to complete the online application form here: https://hzi.opencampus.net/ (Please select Job No. **197/2022**)

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 of its kind 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.