

Helmholtz-Zentrum für Infektionsforschung GmbH



As a member of the Helmholtz Association, the Helmholtz Centre for Infection Research, based in Braunschweig, conducts top-level research in the field of infectious diseases. Our scientists develop novel methods and strategies to fight infectious diseases faster and more effectively. Our common goal is to develop novel approaches for the prevention, diagnosis and treatment of infectious diseases. Our research focuses on bacterial and viral pathogens, their interaction with the human immune system and new effective substances and vaccines.

Doctoral student (f/m/d) at MECI

The department Mechanochemistry of Inflammation, led by Dr. Andriy Goychuk, at the Helmholtz Centre for Infection Research (HZI), is offering the position of a Doctoral student.

Stadt: Braunschweig; Beginn frühestens: Frühestmöglich; Dauer: 3 Jahre;
Vergütung: alike E13 TVöD Bund (75%); Kennziffer: 121/2025;
Bewerbungsfrist: 06.11.2025

Aufgabenbeschreibung

The department Mechanochemistry of Inflammation aims to explain biological phenomena and disease mechanisms by leveraging biophysical theory and mechanistic, mathematical modeling. Our interests include the inflammatory responses to infection, the organization of chromatin and protein assemblies in the cell nucleus, and how this organization is changed upon infection. Our group thrives on scientific curiosity and the free exploration of ideas sparked by ongoing research and scientific exchange. To that end, we closely interact with experimental laboratories.

You will:

- Develop, simulate, and analyze biophysical models of infection spreading and the inflammatory immune response in tissues
- Closely interact with researchers that have expertise in experiment
- Publish your research and present at international conferences
- Become a scientific expert and leader in the field

Erwartete Qualifikationen

- MSc in Physics, Mathematical/Theoretical Biology, or Chemical Engineering
- Very good written and spoken English skills
- Curiosity about the mechanisms underlying life and disease
- Self-motivation and interest to learn new skills

Great to have:

- Experience programming in Python, Julia, or C/C++
- Experience with Mathematica
- Experience with finite element methods, agent-based simulations, and/or machine learning

Unser Angebot

- Academic freedom to pursue your scientific interests related to infection biology, inflammation, gene expression, and intracellular organization
- Competitive salary including healthcare
- Stimulating and international environment at a premier location for infection research
- A corporate culture of appreciation and promotion of equal opportunities
- Extensive training and continuing education opportunities to develop professional knowledge and personal skills
- Flexible working hours and family-friendly environment
- A family office to support family and career as well as childcare offers
- State-of-the-art computational infrastructure and equipment

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 HZI is actively committed to equality, diversity and integration. For this reason, the HZI pursues the goal of professional equality between women and men. The position is suitable for part-time work.

Starting date: As soon as possible. The contract will initially run for 3 years.

Salary: alike E13 TVöD Bund (75%)

Working time: 19,5 hours per week

Place of work: Braunschweig

Probation period: 6 months

Bewerbung

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.

Please include a cover letter, resume, (employment) references, certificates, and (if available) work samples or reference projects with your application materials. Please refrain from sending a photo.

Please send your complete application, quoting the reference number 121/2025, to the Helmholtz Centre for Infection Research GmbH, Human Resources Department, Inhoffenstr. 7, 38124 Braunschweig, Germany or by e-mail at jobsHZI@helmholtz-hzi.de. If you send your application in electronic form, please provide a summary in one single (1) pdf document.

We look forward to receiving your application!

Weitere Informationen unter <https://stellenticket.de/198556/TUB/>
Angebot sichtbar bis 06.11.2025

