



**"Knowledge becomes health"** - we are filling this motto with life every day, developing new ideas and improving old-established knowledge. The University Hospital Frankfurt has existed since 1914. Our around 7,400 employees contribute with their skills and knowledge to the 33 specialist clinics, theoretical clinical institutes, and administrative departments. The close connection of health care with research and teaching, as well as a climate of collegiality, internationality, and cross-professional cooperation characterize the university hospital.

## PhD Student – Computational Immunology

(We are targeting applicants of all genders)

Full time | initially limited to 3 years | Announcement number: 488-2021

We are currently looking for a motivated PhD Student for the **Research Group of Computational Immunology**, a newly established group led by Dr. Katharina Imkeller within the Edinger Institute (Director: Prof. Dr. Karl H. Plate) at the University Hospital Frankfurt and the Mildred Scheel Career Center (MSNZ) Frankfurt, an excellence program supporting careers in translational cancer research (funded by the German Cancer Aid). The research group is embedded in several existing oncology networks that include the University Cancer Center (UCT Frankfurt-Marburg), the German Consortium for Translational Cancer Research (DKTK) and the Frankfurt Cancer Institute (FCI). The group closely interacts with the Immunomonitoring Platform of the FCI (Lead: Prof. Karl H. Plate) and the Clinical Translation Platform „Brain Cancer“ (Leaders: Prof. Joachim Steinbach, Prof. Karl H. Plate, Prof. Winfried Wels).

The **Research Group of Computational Immunology** is interested in applying mathematical and computational methods to understand therapy induced responses of the immune system. The group develops computational tools and quantitative models for human immunology as well as methodology for immunological and multi-omics data integration for brain tumor patients.

### Your role:

The planned PhD project focuses on the development of models to study immune responses in patient undergoing immunotherapy and to identify biomarkers that predict resistance to therapy. The research project covers method development and analysis of different types of multi-omics data (single-cell sequencing, proteomics, multiplexed immunofluorescence images) and adaptive immune receptor sequences (B cell and T cell receptors).

### Who you are:

- You have a master´s degree in computational biology, bioinformatics, biophysics or related field (or a degree of biology/medicine with excellent mathematics and programming skills).
- You have hands-on experience in programming and data analysis (Python or R).
- Furthermore, you have a strong interest in immunology or cancer biology.
- Ability to conduct independent research and motivation to join an international and interdisciplinary research team.
- You have a fluent command of the English language.
- Due to legal regulations, a valid proof of measles immunity / measles vaccination is required.

### What we offer:

- **Working environment:** Interesting collaborative research projects in immunooncology and immunotherapy. State of the art research infrastructure, an inspiring working environment and excellent basic research with translational and clinical applications. Dedicated personal mentoring and participation in training and qualification programs of the MSNZ and the Goethe University.
- **Collective agreement:** In addition to an attractive salary based on a collective agreement (65% - E13) with an annual special payment, you benefit from long-term security through company pension schemes
- **Mobility:** Free public transport in all Hessen (Free State Ticket Hessen)

**Campus:** Our attractive university hospital campus offers a modern cafeteria, various cafes, and opportunities to rest in numerous green spaces. A walk on the riverside of the Main offers relaxation during breaks

- **Work-Life-Balance:** Part-time employment is possible, we offer childcare in our daycare center (more information can be found [here](#)), child care during holidays, and many attractive offers for health promotion
- **Professional development:** Internal and external training for your professional development

Disabled applicants are preferred if they have the same personal and professional qualifications.

## Join our Team!

We are looking forward to your application! Use the time until October 8th, 2021 to [apply](#). Please state the announcement number and a possible starting time. For further information on the position, please contact Prof. Dr. Karl H. Plate (email: [Karlheinz.plate@kgu.de](mailto:Karlheinz.plate@kgu.de)).

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