We are looking to support our rapidly growing team as soon as possible:

PhD Student (f/m/x) - Bioinformatics / Computational Biology

Department I of Internal Medicine - Division of Infectious Diseases

TV-L: 25 h/week (64,94%)

limited for 3 years according to WissZeitVG (Third-party funded project) with option for extension

Your salary will be based on TV-L

Your tasks

- Development and application of bioinformatic pipelines for bulk and single-cell transcriptomics, proteomics, longitudinal phenotyping and epigenomic data
- Integration of multi-layered datasets to dissect regulatory pathways in immunity and infection
- Performance of statistical and computational modeling to identify molecular signatures, biomarkers or regulatory networks
- Close collaboration with national/ international partners
- Presentation of the data within meetings as well as national and international congresses
- Publication of the results in high-impact journals

Your profile

- You hold a Master's degree in Bioinformatics, Computational Biology, Systems Biology, Data Science, or a related field
- Strong programming skills in R (required); Python and/or Bash experience desirable
- Experience with RNA-seq data analysis; familiarity with single-cell workflows or epigenomic analyses is a strong plus
- Knowledge of statistical modeling and data

Your future with us

We are one of the leading university hospitals in Germany and network research, teaching and health care at the highest level. That's why many things are a lot bigger for us: the spectrum of exciting development opportunities. The limitless openness with which specialists from all over the world work together here. Or our commitment as an employer to support all employees as best we can in reconciling their job with their goals and life situations.

This is the University Hospital of Cologne: Everything but ordinary.

Your future in detail

The Translational Research Unit – Infectious Diseases (TRU-ID) within the Division for Clinical Infectious Diseases conducts research aimed at improving our immunological understanding of infectious diseases. Our ultimate goal is to develop innovative therapies for serious bacterial, fungal or viral infections. With the support of our close network of partners at the University of Cologne, as well as our national and international collaborators, we are working to advance these innovative therapeutic concepts towards clinical application. Our studies are funded by the German

integration methods
- Experience with HPC environments, Linux/Unix, and reproducible research practices
- Interest in immunology, infection biology, and translational research; prior biological background is advantageous but not required
- Independent and structured work style, enthusiasm for interdisciplinary collaboration
- Excellent English communication skills, both spoken and written

Our offer

- **Everything but ordinary:** You can expect a secure job in a challenging, innovative environment – including company pension schemes and regular working hours without business trips.
- **Work-life balance:** Whether full-time or part-time, with or without children – with numerous support options, we will find the right path together.
- **Team spirit in R(h)ine culture:** You will be warmly welcomed by an interdisciplinary team that values mutual respect and helpfulness.
- **Strong perspectives:** We offer extensive training opportunities – so you can continuously grow and set new goals.

Centre for Infection Research (DZIF), the Federal Ministry of Education and Research (BMBF), the German Research Foundation (DFG) and the European Union, among others.
Our laboratory investigates molecular and cellular mechanisms of infectious diseases with a strong focus on host–pathogen interactions, trained innate immunity, tuberculosis, and vaccine-induced immune responses. To address these questions, we generate and analyze a wide spectrum of multi-omics datasets, including bulk & single cell RNA sequencing, proteomics and phospho-proteomics and epigenomic profiling. In particular, the project will examine longitudinal immune phenotyping data from a multicentric study of extrapulmonary tuberculosis (mEX TB). The successful candidate will develop and apply computational strategies to integrate and interpret these datasets, contributing to systems-level understanding of immune regulation in infectious diseases.

Applications from female candidates are expressly welcome and will be given priority in the event of equal suitability, competence and professional performance. People with disabilities are welcome to apply and will be treated preferentially in the event of equal suitability and qualification. The position is suitable for staffing with part-time employees.

Contact

Dr. Tony Müller

Tel.: +49 221 478-39428

Universitätsklinikum Köln AöR
Geschäftsbereich Personal
Kerpener Str. 62
50937 Köln

Uniklinik Köln Karriere

Application deadline: 11.01.2026

Job-ID: x5sc1xy8

apply now

We look forward to receiving your application and getting to know you!