TRON

Computational Scientist –
Multi-omics (m/f/d)
Full time - Mainz

We seek for a passionate **Computational Scientist (m/f/d) as an expert for multi-omics analysis** to join our **Systems Immunology & Medicine** unit. We are an interdisciplinary team of scientists, PhD students, and software engineers passionate about developing bioinformatics tools and predictive models for therapeutic targets against cancer and other diseases. In close collaboration with other teams at TRON, as well as with external partners, we apply our computational approaches and models to progressively improve the efficacy of immunotherapies, in particular cancer immunotherapies.

The successful candidate will analyze clinical and preclinical multi-omics data, such as high-throughput sequencing, Ribo-seq and proteomics, and investigate how to exploit those data to improve antigen discovery and prioritization.

Your tasks and responsibilities:

- Use multi-omics data (e.g. proteomics, Ribo-Seq, TCR-Seq) from clinical and preclinical studies to improve antigen discovery
- Compare, develop and maintain best-practise computational pipelines to analyse omics data such as proteomics and Ribo-Seq
- Analyze large cohorts of multi-omics data (i.a. genomic, transcriptomic, translatomic, proteomic) to identify and prioritize novel disease-specific candidate antigens relevant for immunotherapies
- Support the implementation of novel multi-omics technologies through bioinformatic expertise
- Contribute to the design of validation strategies and collaborate on confirming targets through molecular and immunological assays
- Present and discuss in internal meetings and on international conferences, write R&D reports and scientific publications

What you bring:

- Ph.D. in Computational Biology, or a related data-driven field with at least 2 years of postdoctoral research experience in academia or industry
- Demonstrated scientific expertise in multi-omics analysis (e.g. proteomics, immunoeptidomics, Ribo-Seq) and proficiency in analyzing next-generation sequencing (NGS) data is a must
- Any experience in the field of antigen discovery is a plus
- Excellent programming skills for reproducible data analysis in Python or R
- Hands-on expertise with version control systems (e.g. git), workflow managers (e.g. Nextflow or Snakemake), and high-performance computing environments
- Excellent communication skills and a collaborative approach, with the ability to contribute effectively to multiple projects simultaneously

- Experience leading research projects in a multidisciplinary environment and comfortable working in a dynamic and evolving environment

Enthusiasm and curiosity for the diverse activities of our research institute completes your profile.

We offer:

- A dynamic, innovative, and creative research environment with strong expertise in immunotherapies
- An open, collegial, and supportive working atmosphere in a respectful organizational culture
- A highly diverse and inclusive workforce
- Access to our GPU-accelerated HPC cluster and laboratories with cutting-edge sequencing technologies and molecular assays
- Performance-based remuneration and other benefits
- The opportunity for personalised further training
- Job ticket (Deutschlandticket) incl. employer allowance
- Bike leasing (Businessbike)
- The opportunity for hybrid working

TRON is an internationally recognised institute for application-oriented research. We combine the strengths of academic research with the requirements of quality-controlled industrial developments. At TRON, we share a common mission to develop innovative solutions for the immunotherapeutic treatment of cancer, infectious diseases and other serious diseases with high medicinal need for development.

TRON was founded in Mainz in 2010 and works in close cooperation with universities and hospitals as well as with regional, national and international research institutions and pharmaceutical companies.

As part of our team, you will have the opportunity to work at the cutting edge of translational science.

If all this appeals to you, we look forward to getting to know you.

Please send us your complete and informative application documents (cover letter, CV, references) in a single document of max. 5 MB by e-mail to Human Resources at **jobs (at) tron-mainz.de**, Job-ID: **43103-25-03-WAPRO**

For more information, visit our homepage at www.tron-mainz.de