TRON

Computational Scientist Cancer Antigen Discovery(m/f/d)

Full time - Mainz

We seek a highly motivated **Computational Scientist (m/f/d) for Cancer Antigen Discovery** to join our **Computational Genomics** unit. We are an interdisciplinary team of scientists, PhD students, and software engineers passionate about developing bioinformatics tools to identify biomarkers and therapeutic targets for personalized immunotherapies against cancer. In close collaboration with other teams at TRON, as well as with partners from academia, clinics and industry, we apply our computational approaches to discover antigen targets and translate them into clinical practice.

The successful candidate will be responsible for identifying and prioritizing novel classes of tumor-specific antigens for personalized mRNA vaccines and other immunotherapies. This will be achieved through the analysis of multi-omics data, using innovative computational approaches supported by validation through molecular and immunological assays.

Your tasks and responsibilities:

- Analyze large cohorts of genomic, epigenomic, transcriptomic and proteomics data to identify and prioritize novel tumor-specific candidate antigens relevant for cancer immunotherapies.
- Develop computational pipelines for antigen target detection in individual patients for personalized therapies.
- Contribute to the design of validation strategies and collaborate on confirming targets through molecular and immunological assays.
- Present and discuss in internal meetings and international conferences, writing R&D reports and scientific publications.

What you bring:

- Ph.D. in Computational Biology, Immuno-Oncology, or a related data-driven field with at least 2 years of postdoctoral research experience in academia or industry.
- Demonstrated scientific expertise in tumor immunology and target discovery for immunotherapies.
- Excellent programming skills for reproducible data analysis in Python or R.
- Experience analyzing next-generation sequencing (NGS) data. Experience with mass spectrometry-based immunopeptidomics data analysis is a plus.
- Hands-on expertise with version control systems (e.g., Git), workflow managers (e.g., Nextflow or Snakemake), and high-performance computing environments.
- 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
- Opportunities for personalized professional development
- Convenient access via public transport and car as well as bicycle parking spaces
- The possibility of hybrid working arrangements

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 have the opportunity to be at the forefront of translational science with us.

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: **43104-25-02-WAPRO**.

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