



PostDoc – in Bioinformatics Pipeline Development for Cell Therapies (m/f/d)

INVITE

Innovation is what drives us. As a non-profit research organization, we develop groundbreaking technologies with our interdisciplinary team that shape the future – and create added value for society.

Our **Vision** is to achieve substantial things through strong partnerships. Together with our broad network of scientific and industrial partners, we create synergies from which everyone benefits.

Technology is our passion, and we love to share it. Through research on industry-relevant scientific questions and further education, we prepare the next generation for the challenges of the future.

For a 2-years industrial collaboration project on the topic of “Bioinformatics Pipeline Development for Cell Therapies” we are looking for you:

Your tasks and responsibilities

The main goal of the postdoc project is to significantly advance the bioinformatics capabilities for characterizing and optimizing the efficacy and safety of next-generation cell therapy products. By harnessing high-throughput Next Generation Sequencing (NGS) technologies, you will transform vast omics datasets into biologically meaningful insights that directly guide product development. Starting from existing preliminary pipelines for bulk RNA-seq, single-cell RNA-seq, and various DNA-seq applications in the Molecular Biology Cell-Therapy Analytics group of Bayer AG in Wuppertal, you will collaborate closely with molecular biologists and therapy developers to refine, automate, and where necessary completely redesign these workflows. The focus lies on creating robust, scalable, fully automated, and resource-efficient pipelines that process large data volumes with minimal manual intervention while extracting maximum scientific value.

Amongst others, your task will include:

- Develop, optimize, and automate NGS analysis pipelines (bulk & single-cell RNA-seq, DNA-seq) using tools such as Nextflow
- Implement scalable, reproducible workflows for data processing, quality control, differential analysis, multi-omics integration, and advanced single-cell methods
- Extract and interpret high-value biological insights related to cell therapy product potency, safety, and mechanism of action
- Collaborate interdisciplinarily to translate bioinformatics results into actionable recommendations for therapy development
- Provide bioinformatics input to experimental design and present complex findings clearly to non-expert stakeholders
- Document workflows and support data management in Unix/cloud environments

What you bring with you

- Ph.D. in Bioinformatics, Computational Biology, Molecular Biology, or related field
- Previous experience in NGS data analysis, specifically, experience building bioinformatic pipelines, preferentially knowledge of pipeline management tools such as Nextflow
- Understanding of human transcriptomics and genomics, previous work on cell therapies is a plus
- Experience with lab digitalization and electronic LIMS systems (e.g. eLabNext)
- Experience working within Unix-like operating systems (e.g. Ubuntu)
- Experience working with R or python, particularly with packages associated to the analysis of NGS data
- Capability of working in a multidisciplinary environment, facilitating the explanation of complex NGS data to non-expert stakeholders

What you will take with you

- Experience in industrial environment, working in an interdisciplinary setting on innovative technologies
- Collaboration and mentorship from other Bioinformaticians in the team. Exchange and collaboration with other functions also involved in the development of cell therapies
- Contribution to the development of cutting-edge Cell Therapeutics advancing our fight against previously incurable diseases

INVITE GmbH strives for a gender-equitable employment structure and therefore expressly welcomes applications from women.

Contact person

Please, send your complete application documents to Maja Diebig-Lorenz (Diebig-lorenz@invite-research.com).