

Job Advertisement:

University of Basel / University Hospital Basel – Department of Biomedicine

Data scientist in Oncology

100%, Start between July and September 2026

We are seeking a highly motivated **Data Scientist** to join our multidisciplinary team at the interface of clinical research, biomedical imaging and personalized oncology. This position offers the opportunity to contribute directly to translational science and personalized cancer treatment decisions. You will be embedded in a dynamic, interdisciplinary team combining clinicians, cancer biologists, organoid and image mass cytometry experts, bioinformaticians, and data scientists. We use state-of-the-art technologies such as image-based drug screening and imaging mass cytometry to inform clinical decision making for patients with advanced cancer.

Your tasks:

The successful candidate will play a central role in **analyzing complex, image-based datasets** to generate clinically actionable insights. Your main responsibilities include:

- Process and analyze **image-based drug screening** and **imaging mass cytometry** (IMC) data.
- **Engineer software solutions** and **manage the clinical data pipeline**.
- Apply advanced image analysis techniques, including segmentation, feature extraction, and quantification of cellular phenotypes and spatial patterns.
- Develop and implement **AI/ML models** (e.g., deep learning approaches for segmentation, classification, or predictive modeling) tailored to biomedical imaging data.
- Integrate multi-modal data to identify biomarkers and inform treatment decisions in a translational context.
- Create and maintain custom scripts and pipelines to automate and streamline data processing workflows.
- Summarize key findings in concise, actionable reports for clinical collaborators.
- Collaborate closely with, biologists, and other data experts to interpret results and refine analyses.
- Ensure rigorous data quality control, reproducibility, and critical evaluation of results.

Your profile:

- PhD degree or equivalent expertise in data science, bioinformatics, computational biology, computer science, physics, engineering, or a related quantitative discipline.
- Strong programming skills in **R and Python** (preferred) with experience in data analysis and scripting.
- Solid knowledge of statistical methods and data visualization.
- Experience working with **high-performance computing** environments and **Git** for collaborative development.
- Experience deploying AI/ML models in production or research environments, and with deep learning frameworks such as PyTorch or TensorFlow.
- Strong team spirit, excellent communication skills (English), and ability to work in a multidisciplinary environment.
- High motivation, critical and meticulous approach to data handling and interpretation.
- Genuine interest in **translational science** and bridging computational methods with clinical applications.
- Background in **cancer biology** or oncology research is a plus. Experience in software development is a plus. Experience with analysis of sequencing data is a plus. Experience with job scheduler (e.g., SLURM) is a plus.

We offer you:

A stimulating, challenging and interdisciplinary translational research environment, state-of-the-art technologies and attractive employment conditions. The DBM is an international institute pursuing basic, translational and clinical research, with access to cutting-edge core facilities and in the heart of multicultural city of Basel. Your position will be embedded in the lab of Prof. Bentires-Alj but you will work in a consortium working on different types of cancer.

Lab website: <https://bentireslab.org/>

Applications:

Please upload your CV, a summary of your research experience and interests, techniques that you are competent in, and the contact details of **three** referees including your current PI at:

<https://biped.dbm.unibas.ch/apply/data-scientist-oncology-start-july-september-2026>

Application deadline: Applications will be reviewed as they arrive.

Contact: thmrjobapplication-dbm@unibas.ch