

Job Advertisement:

University of Basel / University Hospital Basel – Department of Biomedicine
Bioengineer and 3D culture expert
100%, Start between July and September 2026

We are seeking a highly motivated and innovative **Bioengineer specialized in complex 3D culture systems** 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 including clinicians, cancer biologists, organoid and drug screening 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:

- Drive the development of organ-specific heterotypic 3D co-culture models using patient-derived tumor material, with iterative optimization of media compositions.
- Establish and scale miniaturized co-culture platforms in 384-well formats, enabling compatibility with automated high-throughput drug screening workflows.
- Design and execute robust comparative drug screening assays to evaluate therapeutic responses.
- Develop and apply automation workflows, including liquid handling technologies, to ensure reproducible and high-precision cell seeding.
- Work collaboratively with organoid specialists and data scientists in a highly interdisciplinary environment.
- Ensure rigorous documentation of experimental procedures and support the translation of methods toward clinically relevant, scalable high-throughput applications.

Your profile:

- PhD degree or equivalent expertise in biomedical/tissue engineering, biology, biotechnology, or a related field.
- Hands-on experience with complex 3D culture systems and their application in cancer research.
- Solid knowledge of cancer biology and tumor microenvironment dynamics.
- Practical expertise in imaging techniques and immunofluorescence.
- Strong organizational skills, pragmatic and clear mindset.
- Highly motivated, creative, team-oriented, and collaborative;
- Excellent oral and written English communication skills.

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. Bentières-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/bioengineer-and-3d-culture-expert-start-july-september-2026>

Application deadline: Applications will be reviewed as they arrive.

Contact: thmrjobapplication-dbm@unibas.ch