Job Advertisement: PhD position on molecular mechanisms of drug resistance in breast cancer using genetic screens and 3D tissue-engineered constructs

100%, Start in March 2023

A PhD position is available in the laboratory of Professor Momo Bentires-Alj (https://bentireslab.org/) at the Department of Biomedicine (DBM) in Basel, Switzerland. The successful candidate will study molecular mechanisms of resistance to breast cancer therapy using bioengineered *ex vivo* cultures of patient breast tissues, clonal barcoding, CRISPR-Cas9 libraries, mouse models, and image-based drug screening (Pharmacoscopy).

Selected publications of our lab include: 1- *PIK3CA*^{H1047R} induces multipotency and multi-lineage mammary tumors. Koren S, *et al.,* Nature 2015. 2- Hippo kinases LATS1/2 control human breast cell fate via crosstalk with ERα. Britschgi A, *et al.,* Nature 2017. 3. Glucocorticoids promote breast cancer metastasis. Obradović MMS, *et al.* Nature 2019. 4. Hepatic stellate cells suppress NK cell sustained breast cancer dormancy. Correia AL, *et al.,*
Nature 2021.

Your tasks:
The tasks include: a) Manage and characterize breast cancer patient-derived organoid samples, b) Assess their response to single or combination therapy using image-based drug screening (Pharmacoscopy), c) Validate the findings *in vivo*

Your profile:
A **strong experience in primary cell culture, 3D cultures and tissue engineering, molecular cloning, and imaging**. Expertise in drug screening, and/or mouse work is a plus. The candidate should be **well-organized, highly motivated, a team player**, and must be fluent in English.

We offer you:
A stimulating, challenging and interdisciplinary translational research environment, state-of-the-art technologies and core facilities, and attractive employment conditions. The **DBM is an international institute** pursuing basic, translational and clinical research, with access to cutting-edge core facilities.
Lab website: https://bentireslab.org/.

Applications/contact:
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 at:
https://biped2.dbm.unibas.ch/apply/phd-application-bentires-lab

Application deadline: applications will be reviewed as they arrive.