Università
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PhD student position at the Regenerative Medicine Technologies Lab and Lymphoma Genomics Group, Faculty of Biomedical Sciences, at USI Università della Svizzera italiana

Università della Svizzera italiana (USI) is a young and lively university, a hub of opportunity open to the world where students are offered a quality interdisciplinary education in which they can be fully engaged and take center stage, and where our researchers can count on having the space to freely pursue their initiative.

Established in 1996, USI is in constant evolution, always taking on new challenges while remaining true to its three guiding principles: quality, openness and responsibility.

The Regenerative Medicine Technologies Laboratory (RMTLab) headed by Prof. Matteo Moretti in the Laboratories for Translational Research (LRT-Ente Ospedaliero Cantonale) and the Lymphoma Genomics Group headed by Prof. Francesco Bertoni at the Institute of Oncology Research (IOR) are seeking a PhD STUDENT to study novel 3D cell culture models in lymphomas, with a particular focus on drug screening. Both laboratories are located in the newly built Bellinzona Institutes of Science (Bios^{+}), Bellinzona, Switzerland.

Strategic research areas of the RMT Lab are: in vitro disease modeling through biofabrication (e.g. age-related diseases, cancer metastases, musculo-skeletal diseases); design of novel technologies for drug screening; personalized medicine applications using human tissue biopsies. To promote the advancement of these research areas, the RMT Lab combines microfluidics and microphysiological systems, 3D (bio)printing and computational simulations.

The Lymphoma Genomics Group of IOR is affiliated to the Faculty of Biomedical Sciences, Università della Svizzera italiana (USI) and linked to the Oncology Institute of Southern Switzerland (IOSI), the comprehensive cancer center in Bellinzona and one of the world referrals centers for lymphomas. IOR collaborates with the Swiss Group for Clinical Cancer Research (SAKK) and it is an institutional member of the Swiss Institute of Bioinformatics (SIB).
The Lymphoma Genomics Group has strong expertise in novel drug development for lymphoid tumors and in studying genomic and epigenetic alterations.

The Bellinzona Institutes of Science (Bios^{+}) also include the Institute for Research in Biomedicine (IRB), whose focus on immunology research allows collaborations on normal and neoplastic B and T cells.

The project
The labs have recently granted funding to develop 3D tissue models of the human bone marrow microenvironment to perform drug screening assays targeting lymphoma metastases. The project is highly interdisciplinary merging together biofabrication, lymphoma molecular biology and pharmacology. The labs have access to cutting-edge facilities (e.g. bulk and

single-cell RNAseq; mass spectrometry; confocal, multi-photon and electron microscopy, high-content screening) which are shared among Ente Ospedaliero Cantonale, Institute of Oncology Research and Institute for Research in Biomedicine within a dynamic, multidisciplinary and collaborative environment.

The Ph.D. Position
The doctoral student will be enrolled in the PhD track in Biomedical Sciences (PhD Biomedical Sciences). The doctoral student will work under the scientific supervision of Prof. Matteo Moretti and Prof. Francesco Bertoni. The successful candidate will be offered the possibility to work in a dynamic research team and in a multidisciplinary and international scientific environment.

The PhD candidate will collaborate to the development of the institute research agenda. He or she will have the task of setting up a collection of data for his or her dissertation, while at the same time participating in a variety of tasks related to the research streams in which he/she is involved.

The PhD candidate is also asked to present papers at scientific conferences and produce publications for scientific journals.

Candidates' profile
Ideal candidates should satisfy the following requirements:

- A Master (or equivalent title) in any Life Sciences or related disciplines with knowledge of lymphoma cell biology and signaling pathways.
- Laboratory experience in molecular and cell biology techniques.
- Experience or strong commitment to learn imaging techniques (e.g. confocal microscopy, high-content screening), 3D cell cultures with hydrogels, microfabrication of microphysiological systems.
- Excellent knowledge of oral and written English (official language of the Ph.D. program).
- Ability to work independently and to plan and direct own work.
- Good interpersonal and communication skills.
- Motivation to engage in the elaboration of a PhD dissertation.
- Ability to work in team and autonomy in scheduling research steps.
- Interest for teaching and tutoring students and availability to collaborate with colleagues (engage in scientific dialogue, listen and think critically) are required.

The successful applicant will join young, competitive and multi-disciplinary groups with excellent publication records. Strong collaborative attitude is required since the project is run in the context of international collaborations, allowing and requiring interactions with colleagues from different laboratories and countries.

Contract terms
Admission to the Ph.D. program is highly competitive. Admission decisions are based on the candidate's background, interests, attitude and potential for academic achievement. Successful enrolment in the Ph.D. program and the position as doctoral researcher are not compatible with a further professional activity.
The successful candidates will work as research assistants at the RMT Lab and Lymphoma Genomics Group and will have the possibility to interact with an international network of collaborators.

Workplace is RMT Lab and Lymphoma Genomics Group, located in Bellinzona, Switzerland. Availability to travel to other parts of Switzerland and abroad (for purposes of collaboration and research) is required.

Starting date is October 1, 2023 (at the earliest). However, the position will be kept open until a suitable candidate has been found.

The Application
Applications should contain: (1) a letter in which the applicants describe their research interests and the motivation to apply (max 1 page), (2) a complete CV with publication list, (3) copies of relevant diplomas, certificates as well as the full transcript of records that prove the candidates' eligibility for doctoral studies in Biomedical Sciences, (4) an electronic version of a research work (Master thesis or other scientific publication).
The latter must be accompanied by a short summary in English (1 page maximum). Three references are required. Support letters are not required at this stage.

Please send your application in electronic form or requests for further information to:
- francesco.bertoni@ior.usi.ch
- rmtlab@eoc.ch

USI strives to be an equal opportunity and family friendly employer and is further responsive to the needs of dual career couples. We guarantee that the selection process will give equal opportunities to female and male researchers.
As an institution that values diversity, USI particularly encourages applications from women and from all individuals from underrepresented groups.

Lugano, 13/06/2023