The mission of the Berlin Institute of Health at Charité (BIH) is medical translation: findings from biomedical research are transferred into new approaches for personalized prediction, prevention, diagnostics and therapy. The goal is to achieve medical benefits for patients and citizens. BIH was founded in 2013 and is funded 90 percent by the German Federal Ministry of Education and Research (BMBF) and ten percent by the state of Berlin. Since 2021, the BIH has been integrated into the Charité as a third pillar, as a translational research area of the Charité.

TOP GUT Call for applications for a Doctoral (PhD) Training Positions
in the field of innovative preclinical model for advancing personalized medicine

Sub-project DoC3: Cross-tissue organoid immune cell integration and function

TOP-GUT is a highly interdisciplinary and intersectoral training network focused on training 11 doctoral candidates (DCs) in the field of innovative preclinical model for advancing personalized medicine. TOP-GUT brings together 9 research groups and 3 industrial partners in Europe.

TOP-GUT aims at providing to 11 DCs the skills to:

- develop new human organ models mimicking cellular compositions of organs
- advance organ-on-chip technology
- improve tools and protocols for more complex gastrointestinal (GI) models
- develop new models for personalized medicine using patient-derived organoids
- manage ethical, regulatory and legal aspects together with innovation management of implementation of GI models and to prepare the DCs for the European job market

Participating in TOP-GUT offers doctoral candidates many unique opportunities, including:

- A project as Marie Skłodowska Curie trainee in one of the participating institutions with the objective of receiving a doctoral degree (PhD).
- State-of-the-art, exciting research in an international consortium with highly integrated research projects.
- At 5 months of research training in the lab of another consortium member, mostly in a different EU country than the country where most of the project will take place.
- Training in both academic and commercial research environments.
- Salary according to EU guidelines for Marie Skłodowska Curie trainees, including mobility payments and family allowances where applicable.

The sub-project DoC3 "Cross-tissue organoid immune cell integration and function" is being carried out at the Berlin Institute of Health at Charité (Berlin) under the supervision of Professor Birgit Sawitzki. The aim is to characterize the immune cells throughout human gastrointestinal (GI) tract (stomach, small and large intestine) to achieve GI-tract specific immune cell embedding patient-derived organoids. The detailed project description can be found on the website: https://topgut.eu/.

The Sawitzki lab at the Berlin Institute of Health at Charité – Universitätsmedizin Berlin investigates the molecular mechanisms of immune cell activation and regulation to reveal how components of the immune response themselves become a trigger of destructive inflammatory reactions, like in the context of autoimmune disease or post-acute infections (post-COVID19). We are using state-of-the-art multi-omics technologies (cytometry, imaging, scRNAseq) as well as in vitro perturbation cultures to dissect causality behind compositional changes of immune cells.

Project-specific selection criteria:

- M.Sc. or equivalent degree in Biochemistry, Bioinformatics, Biology, Cell/Molecular Biology, Bioengineering, Genetics, Medical Biology, or a related field
- Strong academic background and dedication to translational research especially in immune-mediated diseases
- Interest and/or expertise in working with biological systems
- Prior experience with at least one of the following methods is highly desirable: multi-parameter (flow) cytometry, single cell RNAseq, computational biology or data analysis of multiplex datasets
- Scientific curiosity and motivation to perform scientifically rigorous experimental work
- Appreciation for interdisciplinary work and proactive drive to collaborate across disciplines
- Ability to work independently as well as part of a team of basic scientists, data scientists & clinician scientists, excellent organizational skills and high reliability
- Strong verbal and written communication skills in English (i.e. German not required)

Mobility eligibility requirement:

- The fellow must not have resided in the country where the research training activities will take place for more than 12 months in the 3 years immediately prior to the recruitment date (and not have carried out their main activity (work, studies, etc.) in that country).

Other requirements:

- Applicants must be eligible to work in the European Union.

Application process:

The application procedure and the required documents can be found on the website: https://topgut.eu/.

For further questions please contact: manuela.fiedler@bih-charite.de

Email address for the applications: birgit.sawitzki@bih-charite.de

The closing date for applications is 15th December, 2023