Heinz Nixdorf Chair of Biomedical Electronics
TUM Department of Electrical and Computer Engineering
Center for Translational Cancer Research (TranslaTUM)
Technical University of Munich

Master Thesis

Label-free, high-throughput analysis of pancreas cancer cell culture with holographic microscopy

We are looking for a highly motivated student with biology, biotechnology or bioengineering background for a Master thesis in the *Label-free Imaging Cytometry* group at the Chair of Biomedical Electronics of Prof. Oliver Hayden.

Background

The *Label-free Imaging Cytometry* group focuses on the implementation of holographic imaging and microfluidics for high-throughput biomedical applications with minimum sample preparation. In cooperation with the group of Dr. Maximilian Reichert of the *Klinik und Poliklinik für innere Medizin II, Klinikum rechts der Isar der TUM*, the mesenchymal-epithelial transition of various pancreas cancer cell cultures should be analyzed to improve the discovery of novel anti-cancer drugs and facilitate treatment monitoring.

Requirements

- Biology/Biotechnology/Bioengineering background
- Experience in working in a life science lab is a must (pipetting skills, biological sample handling, microscopy)
- Experience in cell culture handling is a plus
- Experience in flow cytometry is a plus
- High motivation, open character and team player
- 6 month minimal duration, 9 month preferred

What we offer

- Ability to work in a dynamic, interdisciplinary team of biologists, engineers, physicians and computer scientists
- Application-driven project at the interface of bioengineering and medicine
- Insights into new technologies, microfluidics and workflow integration

Please send applications including a motivational letter and a short CV to matthias.ugele@tum.de or directly come to **Room 22.1.31 at TranslaTUM** to introduce yourself (Contact: Matthias Ugele). For additional information see http://www.lbe.ei.tum.de/research/label-free-imaging-cytometry/.