

Master Thesis (f/m/d)

What we offer:

We offer an exciting project at the interface of cell biology and medicine in pancreatic cancer. Pancreatic ductal adenocarcinoma (PDAC) is characterized by a fibroblast-rich desmoplastic stroma which plays a critical role in the progression and therapeutic resistance of PDAC. The stroma is composed of extracellular matrix proteins, mainly deposited by the cancer-associated-fibroblasts (CAFs) and various types of immune cells. Cancer-associated fibroblasts display a high degree of interconvertible states including quiescent, inflammatory and myofibroblastic phenotypes. However, the mechanisms by which this plasticity is achieved are poorly understood.

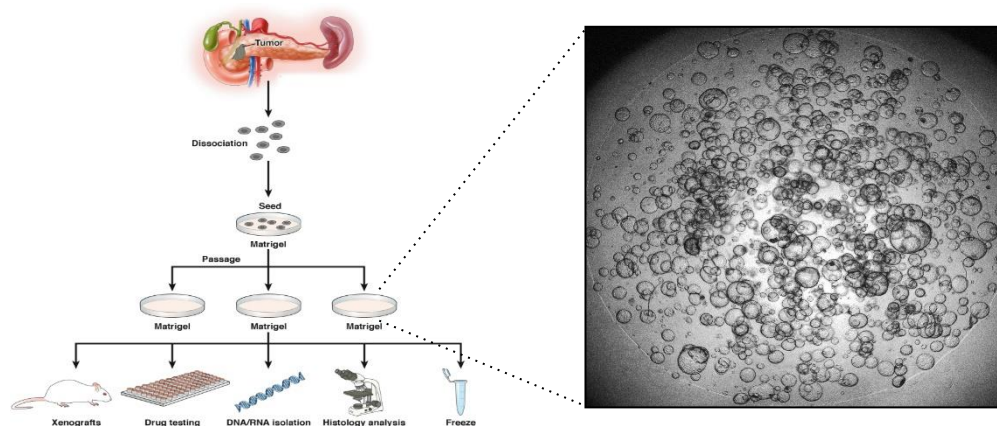
This project will focus on the CAF – PDAC cell interaction in the human cell culture system and will elucidate how CAF plasticity promotes PDAC cell aggressiveness through multiple mechanism.

Our spectrum of methods we can offer

- Cell culture
- Working with primary human and murine cell lines (organoids)
- Drug screens
- Co-Culture systems
- Manipulation of human und murine cell lines (CRISPR Cas9, etc.)
- Broad spectrum of molecular biology (ELISA, Western Blot, PCR, Cloning of Plasmids)
- Flow cytometry
- Orthotopic Implantation (mouse models)
- Imaging (MRT, PET)

Contact:

For further details please contact Dr. Karin Feldmann (karin.feldmann@tum.de; AG Reichert | Klinik und Poliklinik für Innere Medizin II, Klinikum rechts der Isar, TUM)



Generation of human organoids