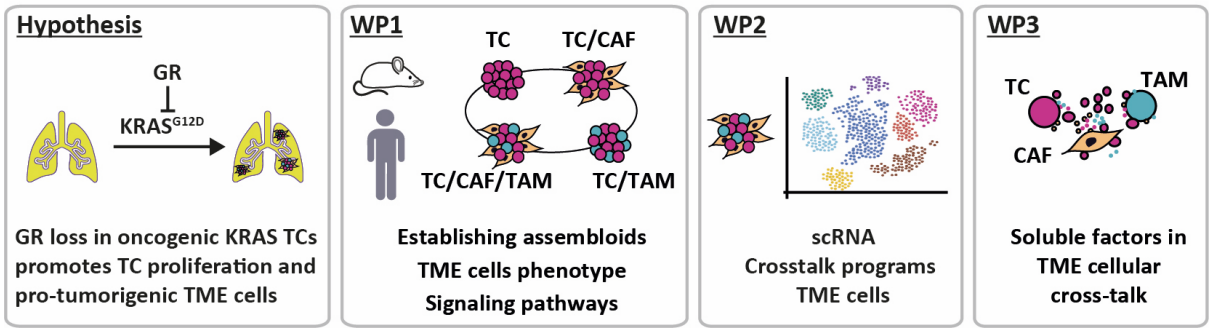
PhD position for the project "Glucocorticoid receptor and RAS-dependent growth in lung tumors"

Project description:

Non-small cell lung cancer (NSCLC) is a leading cause of cancer-related mortality and is frequently driven by oncogenic KRAS mutations. Effective therapeutic strategies remain limited. Our interdisciplinary collaboration between leading experts in RAS signaling (Ion Cîrstea Lab) and steroid receptor biology (Jan Tuckermann Lab) has shown that glucocorticoid receptor (GR/NR3C1) activity improves cancer patient survival (*Science Signaling* DOI: 10.1126/scisignal.abm4452, *Trends in Cell Biology* DOI: 10.1016/j.tcb.2022.11.002).

Within the Research Training Group **ORG-BOOST (Organoid-Based mOdelling of Solid Tumors)**, this PhD project aims to dissect the functional interaction between oncogenic KRAS and GR in NSCLC. Using mouse and human tumor organoids and assembloids, combined with state-of-the-art single-cell omics, the project will analyze tumor–microenvironment (TME) interactions involving tumor cells (TCs), tumor-associated macrophages (TAMs), and cancer-associated fibroblasts (CAFs). The goal is to identify novel therapeutic concepts that exploit KRAS–GR signaling in NSCLC.

Project P7 details: https://organoids-ulm.com/research-projects/p7-glucocorticoid-receptor-and-ras-dependent-growth-in-lung-tumors/. RTG details: https://organoids-ulm.com.



We offer:

- Close supervision with regular scientific mentoring in an international and interdisciplinary environment.
- Full access to state-of-the-art infrastructure at the Institute of Applied Physiology, the Institute of Molecular Endocrinology and Physiology, and the ORG-BOOST research network.
- A structured PhD training program combining research and transferable skill development.
- A 48-month full-time PhD position (TV-L E13, 65 %), leading to a doctoral degree via the International Graduate School in Molecular Medicine Ulm (IGradU), subject to a successful initial trial period.

Requirements:

- Master's degree in molecular/cell biology, biophysics, molecular medicine, biochemistry.
- Experience in molecular, biochemical and cell biological methods (animal tissue processing would be appreciated), a strong interest in the cell biology, signalling pathways and organoid technologies.
- Excellent team-working capabilities and English communication skills.

Application documents:

- Motivation letter, CV, certificates, academic transcripts and a summary of research experience and up to three references (with contact details of up to three referees).

The University of Ulm is committed to increase the share of women in research and teaching positions and therefore explicitly encourages female candidates to apply.

Candidates are encouraged to send their application documents ONLY per email to Dr. Ion Cirstea ion.cirstea@uni-ulm.de, **not later than 15.02.2026**.