

We are looking for a bachelor student in our tumor genetics research laboratory covering our research project:

Promoter hypermethylation detection in circulating tumor DNA in patients with gastrointestinal tumors

The project explores the utility of the detection of tumor-specific biomarkers in the cell-free DNA isolated from patients with colorectal cancer, pancreatic ductal adenocarcinoma and tumors of the upper gastrointestinal tract by the highly sensitive droplet digital PCR (ddPCR) method.

In our studies so far, we focused on the detection of tumor-specific mutations for diagnosis, prognostication and therapy response evaluation (Kirchweiger et al. 2021, PMID: 34876329; further manuscripts in progress). Currently, we aim to expand these studies to the exploration of promoter hypermethylation detection as a more general approach available for most of the patients.

The project is a cooperation between the Tumor Genetics Laboratory at the Institute of Human Genetics and the Gastrointestinal Cancer Center of the Ordensklinikum Linz.

Your tasks within the project will be:

- Bisulfite conversion of isolated cell-free DNA and tumor DNA.
- To perform ddPCR analyses for promoter hypermethylation and tumor-specific mutation detection.
- Integrative data evaluation.

You should bring the following attributes:

- Have general lab experience and be familiar with basic molecular biology techniques.
- Be able to accurately perform (sometimes) manually challenging methods such as ddPCR.
- Willing to fit into an existing laboratory organization.

If you are interested, please feel free to contact us:

Emina Jukic, PhD

Email: emina.jukic@i-med.ac.at