Machine learning detection of cancer in liquid biopsies

Location: Schmelzbergstrasse 26 (ring the bell)
Supervisors: Cécile Trottet, Ivna Ivanković, Xiaochen Zheng, Dr. Zsolt Balázs
Schedule

- Wednesday 09.11.22
  - 9-17: Set up for work on remote server, run pipeline
- Thursday 10.11.22
  - 8-17: Exploring cfDNA length features
- Friday 11.11.22
  - 8-17: Exploring copy number variation
- Tuesday 15.11.22
  - 8-12: Discussing presentation
  - 13-17: Progress report at Irchel
- Wednesday 16.11.22
  - 8-17: Exploring cell-type specific nucleosome footprints
- Thursday 17.11.22
  - 8-17: Identifying tumour type based on copy number variants and cell-type specific nucleosome footprints
- Friday 18.11.22
  - 8-17: Creating feature matrix for machine-learning classification
- Tuesday 22.11.22 start machine learing
  - 8-12: Set up to use jupyter notebooks and python packages
  - 13-17: Progress report in the lab, run example machine learning pipeline
- Wednesday 23.11.22
  - 8-17: Exploratory data analysis and preprocessing, get familiar with Pandas
- Thursday 24.11.22
  - 8-17: Code the pipeline for the chosen Machine Learning model
- Friday 25.11.22
  - 8-17: Optimize the model performance and analyze feature importance
- Tuesday 29.11.22
  - 8-17: Poster preparation
- Wednesday 30.11.22
  - 8-12: Poster preparation + printing
  - 13-17: Poster presentations at Irchel