universität ulm

core facility CYTOMETRY

Obligatory User Guidelines

Mass cytometry/ CyTOF

General rules

- The registration form has to be completed and signed before starting the first measurement at the Masscyometer (Helios).
- After registration is accepted by the Core Facility Cytometry (CFC), new users will get an appointment to discuss individual measurements and preparation procedure.
- Only material registered in CFC can be measured. All new material has to be registered with and approved by the CFC beforehand.
- The Masscyometer (Helios) is ONLY run by Core Facility staff; the measurement is offered as a service.
- All users have to follow the general laboratory safety rules (labcoat, gloves,…)
- The CFC has to be mentioned in the acknowledgements of each manuscript that reports work or results produced by the CFC.
- The CFC has to be informed if a manuscript is published mentioning the Core Facility.

Measurement pre-arrangements

- Cells need to be in single cell suspension. Sticky or clumping cells CANNOT and WILL NOT be measured to avoid instrument damage.
- The measurement documentation sheet (filled in a correct way) has to be available/sent to the CFC operator before the measurement.
- All sample tubes should be labeled in a well readable way.

Data management

- The user needs to provide a hard disk for saving the data (imd, FCS and fcs files)
- CFC is NOT responsible for long-term storage of users data. The user has to secure the data on his own storage device
- CFC can also provide the normalization and de-barcoding procedure for users

Booking policy

- CyTOF appointments should be requested by med.facs@uni-ulm.de
- For organisational reason, the slot should be booked at least two week in advance.
- Pricelists for CyTOF measurements are listed on our homepage: *http://fakultaet.medizin.uni-ulm.de/forschung/core-facilities/facs/*
- Costs are calculated by measuring the time needed to process the provided samples.
- A cost charge will also occur if appointments are cancelled later than 24 hours prior to the booked time
- Datamanagement, cleaning procedure and handling time are calculated additionally to the measurement time.
- For a new panel additional 15 minutes need to be calculated.

Quality Control

- To guarantee constant high level quality of the instruments, quality assurance is done before each user measurement by tuning the instrument.
- To optimize normalization results ”Four Element Calibration Beads” are added to the samples by default
- For optimal results we highly recommended staining controls with enough cell (antibody/staining titrations, compensation matrix, background controls, FMO) Otherwise we can not guarantee optimal results.