



User Regulations Core Facility Flow Cytometry CFFC FZI PKZI Geb. 308A (automatically translated)

General

The Core Facility Flow Cytometry is a facility of the Immunotherapy Research Center in PKZI Building 308A. The manager of the CFFC discusses the experiments with the users and selects the optimal instrument for the respective problem. In addition to the classical sorting and analysis devices, the CFFC has the possibility of characterizing cells with subcellular resolution with an ImageStream X Mark II. Both sorting and analysis measurements can be performed as a service by CFFC staff (permanently operator assisted), or independently by users (trained on the fly).

The head and manager of the CFFC is authorized to give instructions to the users and staff in all matters concerning the conduct of the experiment.

Coordination of the CFFC FZI PKZI

Management	Manager	technical staff
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1. Access regulation, equipment usage, appointment allocation

1.1 Access regulation

Access to the CFFC is regulated by an access authorization. In principle, the use of the equipment is available to all working groups of the University and the University Medical Center. Prerequisite for the activation of the access and use of the equipment is a briefing by the manager of the CFFC. Guests and cooperation partners of a working group active at the UM may also use the equipment in permanent company. The prerequisite in each case is that the CFFC management or its manager has been informed of this and that consent has been given in writing.

1.2 Use of the cytometers and scheduling of appointments

After registration and instruction, access to the CFFC online calendar is granted. The online calendar access is a prerequisite for the reservation of the devices by the users. Appointments for the sorting systems are made via the Sort Request Form, and confirmation of the requested appointment is sent by e-mail.

In the event of high device utilization, the maximum measurement duration per user can be limited by the CFFC. The aim of the limitation is to achieve an even and fair distribution of measurement times for different work groups even in the event of increased demand. The decision on this is the responsibility of the manager and the head of the CFFC.

In principle, it is possible to use the CFFC on weekends or outside of regular operation. For this purpose, a separate briefing on the use of the equipment outside of regular operation by the manager of the CFFC is required.

2. Devices/Programs

The CFFC FZI at PKZI currently has the following equipment and evaluation software:

2.1 Devices

Sorting system:

- BD FACSAria III; 5 lasers, 18 fluorescence channels, single cell deposition, sorting and analyses up to and including BSL1

Analysis systems:

- BD FACSSymphony A5 28 fluorescence channels
- BD FACSFortessa with HTS 16 fluorescence channels
- Amnis ImageStreamX Mk II Imaging Flow Cytometer 10 fluorescence channels

2.2 Workstations and programs

- FlowJo, IDEAS, Prism, cellranger

3. Tasks of the CFFC

The CFFC is responsible for a smooth process and the provision of all necessary substances (such as buffers and cleaning solutions).

Other CFFC responsibilities include:

- Instruction of the users in the respective device systems
- Advice and support (experiment design, panel design, recommendations on necessary controls, recommendations on the use of different instrument systems depending on the research question, evaluation or guidance on a meaningful evaluation).
- Optimization and adaptation of existing measurement techniques for specific user issues (method development; further development of CFFC).
- Training seminars for users (e.g., informing users of new methods/developments).
- Granting of the rights of use
- Coordination and scheduling between users
- System maintenance and expansion, software updates
- Contact with manufacturers and service technicians

The CFFC Manager decides, depending on the scope of the project and the previous experience of the users, whether a detailed briefing of the users is appropriate or whether the planned measurements will be carried out by the CFFC Manager and/or his staff without further user briefing. The users are obliged to be available during the investigations for possible queries.

4. Duties and tasks of users

By using the equipment, the following conditions are accepted:

- The provisions of the operating regulations must be complied with; in particular, everything that interferes with the proper operation of the CFFC must be refrained from.
- The instructions and specifications of the CFFC personnel must be followed.
- Users are required to fully inform CFFC personnel about safety risks associated with the experimental material (in particular pathogenic, infectious, toxic or radioactive properties of the experimental material).
- Users wishing to study animal models in the CFFC must comply with the local animal welfare law and have a valid animal health certificate
- When working with genetically modified organisms (safety level S1), the legal record-keeping obligation is incumbent on the users. When sorting the modified organisms (safety level S1), the corresponding forms Form GO and Form Z RP must be sent to the CFFC Manager together with the S1 Sort Request Form.
- If necessary, provide own personnel with the appropriate authority to perform the experiments.
- The work of the CFFC is appropriately represented in publications. In the case of substantial scientific input, this takes the form of co-authorship. Involvement to a lesser extent is taken into

account by naming the CFFC in the acknowledgement. The correct name of the institution must be used (Core Facility Flow Cytometry (CFFC) of the Research Center for Immunotherapy (FZI), University Medical Center Mainz, Germany).

- The costs for the use of the Core Facility are calculated on the basis of the applicable fee schedule. The User shall pay the costs promptly upon receipt of the invoice or the transfer voucher.

5. Booking rules/cancellation

Reservations are to be made via the online calendar or they are made and confirmed after e-mail request to the CFFC manager. Reserved appointments that cannot be kept by the user must be cancelled and removed from the online calendar as soon as possible, but no later than 24 h before the appointment, otherwise a cancellation fee of 50% will be charged.

Reservations must be made in such a way that as many users as possible have access to the equipment. Permanent reservations (e.g. all-day Monday-Friday) are not permitted. If the manager gains the impression that "prophylactic" reservations are being made, he can cancel these appointments (after consultation) and issue a ban on use in the event of permanent violations of these rules.

6. User rules

In order to make working on the equipment as pleasant, efficient and fair as possible, the following basic rules apply:

- In principle, the first-come-first-served principle applies. Nevertheless, it remains at the discretion of the CFFC manager to postpone dates in consultation with the users (see also points 1 and 5).
- In principle, analyses are also carried out on the sorting systems; however, if time overlaps with sorting experiments, the sorting requests take priority.
- Changes and interventions to equipment and software will only be made via the CFFC management or if the latter has given its written consent to this after consultation.
- Each device is accompanied by an instruction which lists the most important points for operation. Above all, the points are mentioned which are critical and can lead to system damage or reduce the service life of important elements (laser, etc.) if not observed.
- The equipment systems are to be rinsed and left clean according to the instructions provided, the liquid waste is to be disposed of adequately and empty buffer containers are to be left filled up. The user has to check in the online calendar if he is the last user of the day and if yes, he has to take care that the device is shut down according to the available instructions.
- In the event of grossly negligent behavior when using the equipment, access may be blocked and the respective work group leader will be informed. The user is liable for damages caused by gross negligence.

7. User fees

The amount of the user fees can be found in the separate document "Tariffs".

The user fees serve to maintain the operation of the Core Facility and are used accordingly. The user fees consist of the ongoing basic costs for operating the CFFC and the project-specific costs for using the equipment. The project-specific usage costs can be requested from the DFG (see the DFG guidelines on equipment usage costs and on equipment centers).

Fees may also apply for training by CFFC staff on flow cytometry, software, analysis techniques, etc.

8. Data storage

After the measurement, export the experiment to the CFFC server and check the complete and correct data transfer. If the experiment can be successfully restored from the server, the data of the experiment should be exported as FCS files and completely removed from the cytometer database. During the regular database cleaning, which takes place every quarter, all non-exported experiments are copied to the users' folders and removed from the database. The resulting risk of data loss due to an unrecoverable experiment lies with the user. The time spent on the export will be charged to the user at 35€ per hour.