User Guidelines

CMMC Cell Sorting Facility
30.08.2021

1. FACILITY ACCESS

The CMMC Cell Sorting Facility is accessible to all research groups from CMMC, the University and University Clinic, any other research institutes, and users from biotech companies. The Cell Sorting Facility offers well-maintained "state-of-the-art" research instruments for isolating, analyzing and separating cells, organells or vesicles from tissues or "liquid biopsies." Services include, but are not limited to, training, consultations during booking, advice on flow cytometry techniques and sample preparation, software usage and data analysis.

Access to the CMMC building is managed by the University Clinic. The Cell Sorting Facility provides the necessary paperwork and helps with the process to obtain access to the building.

An initial training is mandatory before access to the Cell Sorting Facility resources is granted.

RESOURCES

7 Color FACS Sorter (BD Biosciences FACS Aria III)

8 Color FACS Analyzer (BD Biosciences FACS Canto II)
6 Color FACS Analyzer (BD Biosciences FACS Canto I)
4 Color FACS Analyzer for fluorescent-labelled bacteria (BD Biosciences FACS Calibur)

Magnetic cell sorter (Miltenyi Biotech AutoMACS Pro)

Tissue dissociator (Miltenyi Biotech OctoMACS)

Real time-Multiplate-Reader (Hidex Biosciences Hidex Sense)

FACILITY STAFF & CONTACTS

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Medizinische Fakultät und
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2. COSTS AND BILLING

The CMMC Cell Sorting Facility charges booking time of specific resources. Resource booking is charged by experiment-relevant intervals and users only have to pay for the time they actually use the equipment. Current price lists are available in the facility or on enquiry. Fee changes will be announced at least 3 months in advance. Booking times are recorded with an account specific system at the instruments and PI's are billed quarterly.

These fees are used to maintain equipment, pay for consumables and software updates to provide best working conditions.

Costs for the usage of the flow cytometers and other instruments of the CCSF will be charged on the basis of instrument running time and can be seen in the Table 1.

TABLE 1-CHARGES OF THE CCSF

	CMMC	University Clinics & University of Cologne	Others
	Tarif 1	Tarif 2	Tarif 3
FACS Calibur Analysis			
Acquisition	30	30	60
Analysis	30	30	60
FACS CANTO I and II Analysis			
Acquisition	40	40	80
Analysis	40	40	80
FACS ARIA Sort			
Sort (appr. 5.000 cells/ sec.)	90	90	140
Highspeed sort (> 10.000 cells/ sek.)	130	130	190
Analysis	40	40	80
Single cell mode	130	130	190
Sort into plates, on slides	130	130	190
AutoMACS Pro Sort*	free	free	free
OctoMACS tissue dissociation*	free	free	free
Hidex Sense instrument*	free	free	free

*__Important Information__/30.08.2021: Instruments can be used free of charge until other decission by the CMMC board. Service Charge [Euro/ hour instrument running time; for FACS Aria +1h for instrument set-up/shutdown].

3. GENERAL RULES AND USER RESPONSIBILITIES

Users are obliged to handle equipment according to the instructions given during training. Workspaces should be left clean and data should be removed from the workstations according to the instructions. The PI is responsible for the behaviour of the user and the safety features of the particular experiments. The Cell Sorting Facility provides the necessary training and equipment maintenance.

S1 and S2 areas within the facility are clearly marked and common S1 and S2 rules apply within these areas, e.g. no food and drink at all times, lab coats mandatory. The PI is responsible to register any S1 and S2 work with the authorities; following these guidelines, the PI (or authorized person) is required to be a project manager for the particular user within the Cell Sorting Facility. The project manager has to register the user's work within the Cell Sorting Facility with the authorities and copies of according documents ("Formblatt Z") have to be provided.

Official working times in the Cell Sorting Facility are Mo-Fr 9:00-17:00. Outside these times, the user is responsible to follow safety rules applicable to the particular experiments and to assure that help can be called in case of emergency.

The user has the responsibility to ensure that the employer's liability insurance covers the work in the Cell Sorting Facility.

RESOURCE BOOKING GUIDELINES

A booking calendar is used to create, modify and delete reservations of Cell Sorting Facility resources. After training, a user obtains access to the respective resources in this calendar. User data (Name, email, PI) are stored in the booking calendar and secured with a personal login. The account specific software at the instruments is used to record booked time and to calculate bills.

The daily maximum of resource booking should not exceed 4 hours, this excludes the Hidex Sense usage for real time analysis. If a user needs more time to work on a flow cytometer, please contact Cell Sorting Facility Staff in advance, so a reservation can be prolonged.

BOOKING CHANGES

Reservations in the booking calendar are mandatory prior to the usage of the Cell Sorting Facility resources.

Reservations can be cancelled prior to the start of the reservation; however, we ask users to be considerate with this short-term cancelling, which should only be used as an exception. In case this booking freedom is abused, we reserve the right to restrict possible cancellations of individual users.

Only Cell Sorting Facility staff can change times during, or after, an active reservation. However, if the duration of an experiment changes (e.g. work done prior to the end of a reservation), we will change the reservation duration (30 minute intervals).

In case of technical issues or required maintenance work, Cell Sorting Facility staff will block resources as early as possible and users with conflicting reservations will be notified.

BOOKING PRIORITIES

Most cases of conflicting reservations should be directly handled between respective users; the Cell Sorting Facility can help mediate these discussions. If this is not possible, or no solution is found, the following rules apply:

1. CMMC users have priority access

2. Resource access to meet publication deadlines are prioritized

3. Worst case, Head of Cell Sorting Facility and/or staff will determine which user will be given priority access. This decision will be made case dependent and as quickly as possible.

INSTRUMENT USAGE GUIDELINES

Training is mandatory prior to instrument usage; this training is instrument specific. A maximum of 3 people can participate in a group training. After this training, a user can independently book and use the instruments she/he has been trained on. For the first few sessions, we recommend to work during core hours in case further assistance is needed. It is absolutely forbidden for newly trained users to train other people (e.g. students from their group), only instrument-experienced PostDoc's of the respective group are allowed to do this for their own group. Misconduct will lead to exclusion of the whole research group from the Cell Sorting Facility and information of the PI.

At any time during instrument usage, users are free to ask Cell Sorting Facility staff for assistance, if staff don't operate another instrument on their own. If continuous assistance is necessary or experiments require more support by the Cell Sorting Facility, possible collaborations should be discussed.

DATA HANDLING AND STORAGE GUIDELINES

During flow cytometer usage, data is usually stored on local workstations. Each workstation has a dedicated data storage partition (D:\ drive); data stored on the system partition (C:\ drive) will be deleted without further notice. After data acquisition, users have to transfer their data off these workstations within a week (4 weeks for data analysis workstation). Old data will be deleted without further notice to ensure that other users can use the flow cytometer workstations without any problems.

4. RULES FOR CITATION AND CO-AUTHORSHIP

The German Science Foundation (DFG) evaluates the impact and importance of core facilities to the cluster/institute/university based on their number of acknowledgments, citations and co-authorships. To ensure that the Cell Sorting Facility can continue to provide the best service possible, maintain staff and equipment and acquire new equipment, software and licenses, it is important that all users adhere to the following guidelines.

ACKNOWLEDGMENTS

As soon as data were acquired or analysed within the Cell Sorting Facility or by Cell Sorting Facility staff, the role of the facility has to be cited within the acknowledgments. This includes publications, talks, as well as Bachelor, Master, MD and PhD theses, or equivalent titles, and habilitations. Also, please let us know whenever you acknowledge the CMMC Cell Sorting Facility!

Example:
We thank the CMMC Cell Sorting Facility (and STAFF MEMBER) for their support (in flow cytometry/ technique/ data analysis).

CO-AUTHORSHIP

Core facilities have to bill for their service to keep the equipment in excellent condition, maintain staff, pay for software updates and consumables to obtain an optimal working environment for their users. Despite these fees, common rules for co-authorship also apply to Cell Sorting Facility staff (substantial intellectual or experimental contributions). Prior to a substantial contribution, the user has to inform the PI; the Cell Sorting Facility further strongly suggests that a meeting between everyone involved (user, PI, Cell Sorting Facility staff and Head) should be held.