UNIVERSITÄT DUISBURG ESSEN

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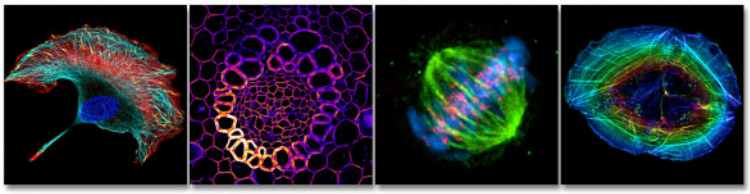
IMAGING CENTER CAMPUS ESSEN - ICCE



ZMB

ZENTRUM FÜR MEDIZINISCHE BIOTECHNOLOGIE

CENTER OF MEDICAL BIOTECHNOLOGY

Terms of Use Imaging Center Campus Essen (ICCE)

at the Center of Medical Biotechnology (ZMB) of the University of Duisburg-Essen

As of: January 2025

1. General Notes

The Terms of Use of the "Imaging Center Campus Essen" (ICCE) at the Center for Medical Biotechnology (ZMB) of the University of Duisburg-Essen (UDE) are in accordance with the guidelines of the German Research Foundation (DFG) " Guidelines for Instrumentation Usage Costs and Core Facilities" (https://www.dfg.de/resource/55-04-en-data.pdf). The terms of use are binding for all users of the ICCE.

2. Management and Contact Persons

The contact person for technical and scientific questions is the Core Facility (CF) Manager of the ICCE, Dr. Nina Schulze. The ICCE is headed by a Steering Committee (SC), currently consisting of Prof. Hemmo Meyer (spokesperson), Prof. Perihan Nalbant, Prof. Stefan Westermann and Prof. Doris Hellerschmied-Jelinek (as of September 2023). The CF Manager and the ZMB Managing Director are advisory members of the SC. The SC is appointed by the ZMB management. The contact details of SC members can be found on the ICCE homepage (https://www.uni-due.de/icce).

3. ICCE Access

All ICCE equipment is generally available to all working groups of the ZMB (internal users) after prior consultation with the CF management and a mandatory training. If sufficient capacity is available, other research groups from the UDE and other universities, university hospitals and academic research institutions have access to the ICCE (external users). If capacity is limited, the SC will decide on the use of the ICCE for these groups.

4. Regulation of Usage Priorities

In principle, all internal users have the same priority for booking ICCE equipment. If ICCE equipment is fully utilized, the CF Manager will assign usage priorities based on the funding provided or the requested usage time of the respective instrument. In addition, in case of project-

related urgency (e.g. manuscript revision, long-term experiments), users may be granted priority use after consultation with the SC. External users (academic and commercial) can only be granted access to ICCE equipment if sufficient capacity is available.

5. ICCE Registration

Before using ICCE equipment for the first time, each user must complete a registration form that asks for general personal and project-related information. In addition, the responsible project leader/principal investigator (PI), whose cost center will be charged with the usage fees, must complete and sign this registration form. The confidentiality of this information is guaranteed. The registration form is available upon request.

6. ICCE Online Booking System

All ICCE equipment can be reserved via an online booking system. Access to the booking system requires registration as an ICCE user and a mandatory training of the user on the respective microscope system by the Core Facility staff. Reservations of ICCE equipment must always be made through the reservation system. ICCE equipment may not be used without prior reservation, as the reservation system is used to record chargeable usage times. As a general rule, reservations should be made no more than 2 weeks in advance. Exceptions to this rule, e.g. in the case of long-term experiments, can be approved in consultation with the CF Manager. Bookings should be made in a way that as many users as possible have access to the microscopes. Prophylactic bookings and permanent reservations (all day for several days) are prohibited and can only be approved after consultation with the CF staff. The ICCE reserves the right to postpone or cancel individual appointments for urgent technical or organizational reasons, after consultation with the users.

7. Cancellation Policy

Reservations that cannot be kept by users must be canceled as soon as possible and removed from the online booking system. In case of last minute cancellations less than 12 hours before the start date, the CF Manager and all ICCE users must be informed via the ICCE mailing list (icce@lists.uni-due.de). Cancellations received before the start of the session are free of charge. Cancellations at short notice due to experimental reasons (e.g. lack of transfection, cell death) after the start of the booked measurement time can only be made free of charge after consultation with the CF staff. If the user does not show up without cancellation, the full usage fee for the booked time will be charged.

8. ICCE Equipment

ICCE users currently have access to 10 light microscope systems, two workstations, and a virtual machine for data analysis. An overview of these systems and their specifications can be found on the ICCE homepage (https://www.uni-due.de/icce). The available systems are listed

in the following table and classified by performance class (I, II or III) according to DFG specifications (https://www.dfg.de/resource/55-04-en-data.pdf).

Nr.	Gerät	Hauptanwendung	Leistungs-klasse
1	Nikon N-SIM S	Widefield superresolution, (2D, 3D, TIRF) - SIM, TIRFM, Photostimulation, live-cell, automated image acquisition	III
2	Leica TCS SP8X Falcon	CLSM, FLIM, F(C)CS, FRET, FRAP, Deconvolution, laser microirradiation, live-cell, automated image acquisition	II/III
3	Leica TCS SP8 HCS A	CLSM, FRAP, PA, FRET, live-cell, automated image acquisition	II
4	Leica TCS SP5 MP HCS A	CLSM, 2-photon, FRAP, PA, FRET, live-cell, automated image acquisition	II
5	Andor/Nikon Spinning Disk	Spinning Disk confocal, FRAP, PA, live-cell	II
6	Nikon Ti2 TIRF DualCam	widefield fluorescence, 4-color TIRFM, FRAP, live-cell	II
7	DeltaVision Elite	widefield fluorescence, Deconvolution, live-cell, DIC	I
8	Thermo Fisher Scientic EVOS M7000	widefield fluorescence, phase contrast, live-cell, tissue staining (monochrome + color camera), automated image acquisition, Deconvolution	I
9	Zeiss AxioObserver Z.1 Microinjection	widefield fluorescence, microinjection, live-	I
10	Zeiss AxioObserver	widefield fluorescence	I

9. Services of the ICCE

The Services of the ICCE include:

- Training: All users will be trained by ICCE staff on the microscope system before being allowed to use the system independently. This training is also the basis for the activation of the online reservation system for the microscopes.
- Project Planning: ICCE users are supported and advised by ICCE staff both in the planning phase and during ongoing projects with regard to specific technical and experimental questions and problems.

- Optimization and adaptation of existing measurement techniques for the methodological development of the instrument center.
- Advice and support for image analysis.
- Advice and support for research data management of image data in OMERO.
- Equipment Maintenance and Service.
- Coordination of booking commencements of ICCE users.
- Liaise with manufacturers.

10. User Obligations and Responsibilities

ICCE users are obliged to:

- Acknowledge and comply with the ICCE General Terms of Use.
- Use ICCE equipment independently only after being trained by ICCE staff.
- Operate all ICCE equipment on the basis of the procedure learned during the initial training. Only use methods for which the user has been instructed.
- Comply with the general work safety regulations and the operating instructions in accordance with the Genetic Engineering Safety Ordinance. In order to comply with the documentation requirements, users are obliged to provide information on the genetically modified organisms (GVOs) used and the corresponding approvals. This is done as part of the registration as an ICCE user.
- Document and record each use of ICCE equipment by writing in the logbooks provided for this purpose (name, date, period of use, system-specific parameters, information on GVOs).
- Note any hardware or software problems in the logbook and inform the ICCE staff immediately.
- Leave the working area and equipment tidy.
- Check the booking calendar for subsequent use before shutting down the microscope systems. Laser and fluorescence light sources must remain switched on if another use follows their own use (maximum 2 hours later).
- Inform CF Management when leaving ICCE as a user.

11. Safety Instructions

Safety instruction on laser safety and biological safety (S1) is conducted twice a year by the appropriate departmental personnel. All users must provide evidence of appropriate training before using the microscope systems for the first time. If necessary, these briefings will be conducted on separate dates for internal users by the safety officers. Safety training must be repeated annually.

12. Data Storage

Storage of data is the responsibility of the user. Data may only be stored temporarily on the designated partition of each microscope computer. Data must not be stored on the control computers for a longer period of time. In general, data should be transferred to the respective workgroup server or the ICCE data transfer server immediately after the experiment. CF Management reserves the right to delete data stored on the microscope control computers. It is not allowed to connect own storage media (USB sticks, hard disks) without prior agreement with CF Management. For research data management of image data, the ICCE operates an OMERO instance together with the Center for Information and Media Services (ZIM) and the Research Data Services (RDS) of the UDE. Registered ICCE users can use this instance to store and edit their images and associated metadata.

13. Acknowledgment of the ICCE in Publications

If images or data generated on ICCE equipment are used in publications, the ICCE must be mentioned in the acknowledgements. An example sentence would be: “We acknowledge the Imaging Center Campus Essen (ICCE), Center of Medical Biotechnology (ZMB), University of Duisburg-Essen, for providing the imaging equipment and support in microscope usage and image analysis.”

A PDF copy of the publication must be sent to the CF Manager. In case of substantial scientific contributions by ICCE staff to a publication (project-specific sample preparation, image acquisition or image analysis), they must be treated as any other co-authors. This is independent of the mode of operation of the equipment or the payment of user fees.

Equipment purchased with DFG funds (e.g. Major Research Instrumentation according to Art. 91b of the Basic Law) must be cited in publications with its respective DFG project number in accordance with the DFG's guidelines (https://www.dfg.de/dfg-2-18-de-v0120-data.pdf). The funding numbers of the respective equipment can be found on the ICCE homepage.

14. Liability

The user or the respective organizational unit is liable for damage to microscopes that can be proven to have been caused by improper operation or gross negligence. In this case, any repair and maintenance costs shall be borne by the user or the respective organizational unit. The ICCE is not liable for damage or loss of samples.

15. Usage Fees

Microscope use is charged on an hourly basis. Booking times are recorded in the online booking system and invoiced to the group or project leaders on a quarterly basis. An overview of the monthly usage times can be provided upon request. The usage fees are listed separately on the ICCE homepage (https://www.uni-due.de/icce) and are part of the ICCE Terms of Use.

The ICCE distinguishes between application operation and service operation for measurements. Measurements are considered application operations when they are performed by the users themselves with little or no assistance from ICCE staff. Measurements are in service operations when ICCE staff perform the measurement or when time-consuming, project-specific support is required for the measurement and/or evaluation. The initial training of new users on ICCE equipment is currently (as of February 2024) not charged as a service operation. Personnel costs for maintaining the operational status of the ICCE devices are not included in the usage fees. These are financed as basic equipment from central ZMB funds.

Fees for the use of ICCE equipment can be applied for as usage fees in accordance with the respective funding guidelines of the DFG or other third-party funding agencies. Information on DFG guidelines can be found on the following homepage (http://www.dfg.de/formulare/55_04/55_04_de.pdf). The ICCE provides advice on the application for usage fees and can prepare the necessary cost estimates for all projects after an initial project discussion.

The ZMB may grant a discount to research groups that have contributed equipment to the ICCE or that have played a significant role in the application and acquisition of major research instrumentation. This does not apply to measurements performed in the context of third-party funded projects.

Usage fees for pure service measurements without scientific cooperation and measurements for non-academic institutions are calculated according to the full cost model of the University of Duisburg-Essen and will be communicated upon request.

In the case of substantial scientific contributions by ICCE staff to a publication, the co-author must be treated like any other co-author, regardless of the mode of operation used or the usage fees paid.

As far as compatible with German tax law, no VAT will be charged within the University of Duisburg-Essen.

Prof. Hemmo Meyer
ICCE Steering Committee

Dr. Nina Schulze
ICCE Manager

Essen, den 11.12.2024

Attachment

Usage Fees of the Imaging Center Campus Essen (ICCE)

at the Center of Medical Biotechnology (ZMB) of the University of Duisburg-Essen

Valid from January 2024

Usage fees for ICCE equipment (valid from 01.04.2024)

Instrument	application operation	service operation
Nikon N-SIM S	30 € / h	90 € / h
Leica TCS SP8X Falcon	30 € / h	90 € / h
Leica TCS SP8 HCS A	20 € / h	79 € / h
Leica TCS SP5 MP HCS A	20 € / h	79 € / h
Andor/Nikon Spinning Disk	20 € / h	79 € / h
Nikon Ti2 TIRF DualCam	20 € / h	79 € / h
DeltaVision Elite	12 € / h	70 € / h
Thermo Fisher Scientific EVOS M7000	12 € / h	70 € / h
Zeiss AxioObserver Z.1 microinjection	12 € / h	70 € / h
Zeiss Axio Observer 7	12 € / h	70 € / h