

**Usage Conditions and Rules of the Life Imaging Center (LIC)  
in the Centre of Biological Systems Analysis (ZBSA), University of Freiburg  
(Effective from 2017/10/01)**

The usage conditions and rules of the Life Imaging Center take into account most of the quality standards for access to research infrastructures (RIs) at the European level worked out by the European Science Foundation (ESF Member Organization Forum on Research Infrastructures) and issued in 04/2011 as well as comply to the DFG specifications for “Gerätezentren” published first in 10/2011 (latest version 06/2016).

([http://www.dfg.de/download/pdf/foerderung/programme/wqi/basic\\_requirements\\_research\\_infrastructures.pdf](http://www.dfg.de/download/pdf/foerderung/programme/wqi/basic_requirements_research_infrastructures.pdf)) ([http://www.dfg.de/formulare/55\\_04/55\\_04\\_de.pdf](http://www.dfg.de/formulare/55_04/55_04_de.pdf))

**1. LIC Access**

The use of our devices and equipment is after prior consultation in principle freely accessible for work groups of all Faculties of the University and the Max Planck Institute for Immunobiology and Epigenetics (central E-mail: [lic@imaging.uni-freiburg.de](mailto:lic@imaging.uni-freiburg.de), Web address: <https://miap.eu/miap-units/life-imaging-center-lic/>). Access can be given also to researchers and research groups from outside of the University, if there is sufficient equipment capacity and user fees for external users are paid. Details of the usage conditions have to be discussed. Access to all equipment of the LIC in the ZBSA is via an electronic card system (Unicard). The LIC is open 24 hours/7 day, but only for experienced users. For other users the LIC staff is usually available for support between Mo - Fri from 8.00 – 17.30.

**2. Equipment and Techniques**

The microscope and computer equipment and the techniques available in the LIC are described in detail on the website of the LIC as well as in PDF documents, which can be downloaded:

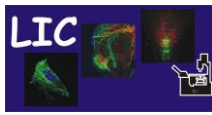
<https://miap.eu/download-lic-geraete> in German

<https://miap.eu/download-lic-equipment> in English

<https://miap.eu/miap-units/life-imaging-center-lic/infrastructure/> Software and hardware

**3. User support**

The LIC staff will advise the users in their specific technical, experimental or analysis questions already before and in the application period, but also during the ongoing project phase. The phone numbers and mail addresses of the staff can be found on the LIC webpage and in the booking calendar.



#### **4. LIC Application**

All users have to fill out a PDF application form for first registration concerning general personal information and project-related data. These data can be processed by EDV, privacy of the data is ensured. Further declarations have to be made to chemical and biological safety and to operational security by the experimenter and the supervising project manager. Without correctly filled out questionnaire including the particular permission number of the working group for S1/S2, no access to the equipment of the LIC is possible.

In case of inquiries, in context of already authorized projects, which fall under the biological security level S2, a pro forma notification has to be made by the LIC via the delegate for biological safety (Mrs. Dr. Markmeyer-Pieles 203-4204) to the Regierungspräsidium Tübingen prior to the start of any S2 work in the LIC. Thereafter the user will receive access to the microscope equipment of the LIC.

The registration sheet can be found as a PDF at the following URL <https://miap.eu/download-lic-application>. An on-line registration system is under development.

#### **5. Workplace assignment**

After evaluation of the application and a personal consultation about the scientific project with the LIC staff the head of the LIC or its representative recommends, which microscope set-up is expected to be best suited for the imaging project, which time effort has to be expected and which additional equipment may be required.

#### **6. Personal access to the LIC facility and the equipment**

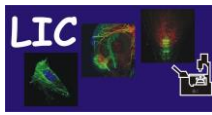
The Uni-Cards of the user will be activated to give access to the LIC rooms. Correctly registered users get an individual Login and password to use the equipment of the LIC. It is not allowed to book for other users or to give the login account data or Uni-Cards for LIC access to others! Misuse in singular cases leads to blocking of the user account for at least one week, in case of repeated violations a permanent exclusion from the LIC is possible.

With the end of the employment, a change of the workgroup of the user or the end of the scientific project at the LIC the user has to notify the LIC about these changes, so that user account, LIC access and personal data folders will be deactivated.

For external users Uni guest cards will be issued via the LIC staff.

#### **7. Logging and storage of equipment usage times**

The individual use of equipment is recorded by EDV and has to be confirmed after each session accordingly by the user's signature on the log sheet, which is laid out at each



workstation. The login times of the individual users are monitored via additional software and are amongst other data the base of the usage fee calculation (see under 8.). These usage data are read out and evaluated with external programs monthly by the LIC staff to generate invoices and anonymous usage statistics. These data are deleted within 2 months. The use of this information for other purposes than those specified here, as well as transfer to third parties is explicitly excluded. This proceeding was approved by the University Work Council and the data protection officials of the University of Freiburg.

Repeated incorrect completion (or not filling out) of the log sheet as well as transfer of individual login data to other users will result in exclusion from LIC workspaces.

## 8. Equipment Booking

Booking of all equipment (microscopes, computers, cell culture, and incubators) can be made via any web browser at the following address:

<http://booking.zbsa.uni-freiburg.de/artologik>

Access to the booking calendar will be permitted via an E-mail sent to the user after the correctly filled out application form has been processed by the LIC.

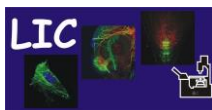
For the booking of analysis computers, it must be first considered, which software will be optimal for use, as for some software packages only a limited number of licenses is available (floating license) and/or their availability is assigned to certain computer workstations. More details can be found at the website of the booking calendar, the LIC website and in the computer lab. (<https://miap.eu/download-lic-software>). For discussion of data or data analysis the offline computers in the LIC computer lab (room 00.041) with the necessary software packages has to be used and booked. **Microscope computers should be used only for data recording!**

## 9. Cancellation or no show appointment, appointment shift

If a user can't keep an appointment, he/she must announce this in advance. Cancellation of a booking appointment 24 hours in advance is always free of charge. For a cancellation within the 24 h time range of the start time of the booking, 50% of the usage fee have to be paid except the booked instrument time is used by another user. You have to notify the persons, which have booked before and after your date and possible 2nd chance bookers as well as the LIC personnel by phone (2902 or 2934) or if you do not reach us then via E-mail to [lic@imaging.uni-freiburg.de](mailto:lic@imaging.uni-freiburg.de). See also further remarks at the last sections of 11.

## 10. Regulation of usage priorities

At present (01.10.2017) all users have in principal the same priorities in terms of the reservation of LIC devices. Per week maximally 2 half days or a whole day may be booked by a



user and/or individual projects at one microscope workstation, whereby nights and weekends are not taken into account until further notice. Bookings more than 3 weeks in advance have to be discussed prior with the LIC head.

In case of complete utilization of some equipment, the reservation will be distributed over a key priority, which is derived from the different sources of funding for LIC equipment. Therefore, users might have different priorities for access to the individual devices of the LIC. In this case an appropriate list will be sent to all users via E-mail.

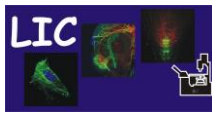
For necessary deviations from this regulation due to experimental needs and whenever other booking problems occur, the head of the LIC or its representatives decide on the assignment and/or the access to the workplaces.

### 11. LIC Pricelist (prices are per hour of usage)

Microscope name	Price [€] / h
LSM-I-STED	30
LSM-I-NLO, LSM-U-NLO, LSM-U-AS	30
LSM-U2, LSM-I-UV, LSM-I	22
LSM-I-DUO-Live, LSM-A1 CLEM	24
SD-I-ABL, SD-TILL	24
Vertical microscope, Screen-TILL	12
Imaging 1, 2, 3 and 4, AxioZoom	12
Axiomager	6
Biostation 1 and 2	4
Fluorescence stereo-microscopes	3
InCuCyte (price per tray)	4
STED laser	12
TIRF lasers on Imaging 4	6
2-photon laser on LSM-I-NLO, LSM-U-NLO	12
351/364 nm UV-laser on LSM-I-UV	6
CLEM lasers on LSM-A1	5
Ablation lasers on SD-I-ABL	7
High-End-PCs in LIC computer lab with software (Imaris, Huygens, LSM 3D, Volocity)	4
Multiprocessor-server (Huygens deconvolution)	4

Yellow marked instrument will be shut down after successful grant application

Green marked instrument LSM-U will be a 91b grant application in 11/2017 via the DFG  
 Certain reductions (explained below in detail) can be applied to specific user groups and specific instruments.



The usage time is calculated from several sources including information in the log sheet, reservation times in the online booking calendar, and the individual user login files recorded via the workstation log-in. The collected data are analyzed statistically.

**Important:** The fees for usage hours in the LIC can be financed via DFG (research grants, scientific networks, Collaborative Research Centers (SFB), Emmy Noether or Heisenberg), BMBF or EU grant applications. So you can apply within your grant for example for 6.000 € covering app. 300 hours of usage of a confocal microscope. More information you can found on the DFG web page at:

[http://www.dfg.de/formulare/55\\_04/55\\_04\\_de.pdf](http://www.dfg.de/formulare/55_04/55_04_de.pdf) or 55\_04\_en.pdf

[http://www.dfg.de/formulare/52\\_01/52\\_01\\_de.pdf](http://www.dfg.de/formulare/52_01/52_01_de.pdf) or 52\_01\_en.pdf

The usage rules of the LIC are in accordance with most recent DFG specifications for “Gerätezentren” published in 11/2011.

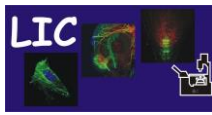
A most recent copy of this signed PDF “Usage Conditions and Rules for the Life Imaging Center (LIC)” should be sent together with your application. The LIC will support all users in writing the specific imaging part of their grant application to achieve a high success rate.

Single labs, groups or research centers, which dedicated equipment to the LIC or support the LIC financially equally in other ways will have different conditions (can be free hours, reduced fee or combination of both) during the warranty period of the instrument and in the following period - up to 5 years in total. Usually a certain number of free usage hours per year on a specific instrument during the warranty period, plus a general reduction of the usage fee on other instruments will be applied. The detailed conditions will be negotiated at the time of the grant application depending on the instrumentation. Therefore groups of users can have deviating rates of user fees.

The money collected via user fees is used for instrument repairs, maintenance purposes, software updates, replacement and add-on equipment for existing microscopes (objectives, incubators...), building customized tools for microscopy in the workshop; and special, specific user support by LIC personal as well as supporting material for the LIC users (antibody and dyes for test purposes). This is in accordance with the DFG rules for usage fees for equipment and will maintain an infrastructure on a high level in the LIC.

For first and second time introduction of users by the LIC personnel a fee off at least 3 hours will be charged + a further fee for assistance of 10 €/h. Beyond that if further more frequent support is necessary and/or strongly required, the head of the LIC decides after consultation with the user or the user’s supervisor about additional costs or other regulations.

The usage fees will be evaluated and adjusted on the basis of the real costs over a period of 2-3 years. Invoices for fees will be send out every 3 month and have to be paid within 14 days. The invoice will be send to the responsible section chief of the work group,



who also has signed the application form of the individual user. No VAT is charged within the University or the Uniklinikum as long as this complies with the German tax laws.

**If a user, who booked equipment does not show up in time for her/his booking appointment within 45 min after the starting time and/or does not send an explanatory cancellation message by mail to [lic@imaging.uni-freiburg.de](mailto:lic@imaging.uni-freiburg.de), at least 50% (up to 100% if notorious) of the booked time according to our current price list will be charged, even if the person normally is free of charge for the microscopes and computers. Bookings, which are made for a certain time, have to be paid 50% even when the user stops working before the end of the booked time.**

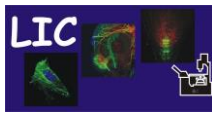
The LIC reserves the right to shift or cancel individual appointments due to technical or organizational reasons after consultation with the affected user.

## 12. User responsibilities

The users are obligated to operate the devices on the basis of the criteria learned in their first briefing at the microscope. Manual instructions are also available at each workspace in written form and on the LIC homepage in electronic forms. The personnel of the LIC should always be contacted in case of any doubt concerning an operating step. To avoid damage to other users and equipment the LIC staff has to be immediately notified when uncontrolled release of experimental solution at the workplace or other chemical or biological contamination happened.

During and after using the equipment, and instruments the workspace must be kept and left clean (clean lenses and microscope stage, rinse containers for experimental solutions, **no glass leftovers**, put immersion medium injection needles in the designated tray). Laser lines and fluorescent lamps have to be handed over in switched on or off condition, depending on which reservations follows thereafter (lasers and fluorescence light sources stay on if the gap is <2h, check booking calendar and/or ask the staff of the LIC).

The respective work group leader is responsible for its employees concerning their behavior at the microscopes, the general briefing into the basic experimental work as well as the general safety briefings and further introduction into biological safety. Specific rules in the LIC will be communicated by the LIC staff. Work of biological safety level S1 and S2 is only permitted, if the LIC is informed about the relevant project permission numbers of AGs. Work of the biological safety level S2 can only be started after prior permission through the LIC, the delegate for biological security (Mrs. Dr. Markmeyer-Pieles 203-4204) of the university and after an official message and/or permission from the Regierungspräsidium Tübingen.



### **13. Image data storage**

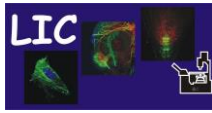
The user fee does not cover the cost of a permanent storage of the experimental data. Experimental data for a current project can be saved only to a limited extent after consultation with the LIC. In general, usually not more than 5 GB of data should remain on the local microscope computers after finishing an experiment. The LIC personnel will request the users on regular basis to save data going beyond this capacity onto to different storage media; otherwise after two written reminders these data can be deleted by the LIC personnel.

The user commits itself to adhere to the signed terms of use. Data, which are stored outside the designated areas, are subject to no security and can be deleted at any time. Storage on the C drive, desktop and other areas such as document folders are strictly forbidden. The personal, temporal areas are automatically deleted when logging out from the workstation. The use of the computers for private Internet searches is not permitted and may result in case of contravention to the exclusion from the LIC.

### **14. Acknowledgment of the Life Imaging Center in publications**

The use of instrumentation in the LIC has to be acknowledged in an appropriate way in each publication containing images or other data obtained in the LIC. The LIC staff will proof read the microscopy methods part of these publications to assure the appropriate description of the used methods and equipment. PDF files of all publications with LIC acknowledgement have to be sent by the responsible author after final publication to the LIC (A bonus system in form of some free usage hours for each acknowledgement is under development). This proof of excellence is extremely important for the LIC as these publications will be part of the reviewing process of the LIC by the ZBSA advisory board as well as other funding organizations of the LIC. Co-authorship on publication or patents is only warranted when substantial scientific input contributes to the publication, this has to be discussed in advance between the LIC and the principal investigators. A typical example text for the acknowledgement can be downloaded here:

<http://miap.eu/download-lic-acknowledgement>



## 15. Liability and Liability Insurance

For users it is strongly recommended to negotiate a professional liability insurance (approximately 60 € per year) to cover any residual risk using devices in the LIC. Corresponding, inexpensive insurances are offered by the University of Freiburg to students, undergraduates, graduate students and other University staff members.

Freiburg, 2017/10/01

Dr. R. Nitschke  
Academic Director  
Head Life Imaging Center

**I have read and accept the usage conditions and rules of the LIC.**

\_\_\_\_\_  
Freiburg, date

\_\_\_\_\_  
Name of user (printed)

\_\_\_\_\_  
Signature