

# Rockefeller University Bio-Imaging Resource Center (RU BIRC) policies

(Alison North, updated October 2018)

***By signing this document you agree to abide by the following rules.***

## Accounts and Training

Before using any of the BIRC microscopes, it is **compulsory** to attend a training session with a BIRC staff member, even if you have used a similar microscope elsewhere. **Separate training sessions** are required for each microscope, and they are typically performed on an **individual basis** so that they can be tailored to your experimental needs and level of experience. **Users are NEVER allowed to train others. This is critical from a safety perspective and to avoid equipment damage.**

**Please follow this procedure to set up an account and arrange a training session:**

- New users must "Create a BIRC account" on the PPMS booking system via the green link on our website: <https://www.rockefeller.edu/bioimaging/>
- They must then bring to the BIRC a completed Account creation confirmation form, signed by their PI or lab manager, confirming that charges against that account have been approved.
- External users must likewise complete the account creation form and must contact the BIRC staff for instructions on setting up a PO from their institution against which charges will be invoiced.
- All users must then complete the "Request Training" form via the same webpage link. Upon receiving the training request, the staff will discuss the answers to the questions and work with you to identify the most appropriate microscope(s) and technique(s). Please provide detailed answers to enable this process.
- A member of the BIRC staff will be assigned to arrange a training session (typically within 2 weeks; the duration of training depends on the specific microscope and the user's competence).
- For certain microscopes, users must also pass an assessment following completion of training.
- You will then be given booking rights (initially Novice, then upgraded to Autonomous with sufficient experience).
- You are welcome to request assisted usage for any subsequent sessions if you need help, advice, a refresher or specific advanced training. We will be more than happy to help but assisted sessions must be arranged in advance to ensure staff availability.
- After 3 months of inactivity on an instrument, you are subject to deactivation for that microscope until you have completed follow-up training. BIRC staff are the sole determiners of whether follow-up training is required.
- Training and support is also available for our image processing and analysis software packages (e.g., Imaris, Arivis, Autoquant, MetaMorph, advanced FIJI).

## Booking rules and Cancellation policies

- Booking of microscopes prior to use, via the PPMS, is **compulsory**, again to minimize equipment damage. Note that the system monitors login time as well as booking time, so any use without a booking will still incur charges.
- The PPMS will not allow you to book a microscope until you have received the appropriate training on it.
- Most instruments can be booked up to 14 days in advance. If you need to book further in advance for a specific reason, please contact the BIRC staff.
- Users may be limited to a certain number of hours per system per week within peak times (9:00 am to 5:00 pm), depending on how heavily a system is booked. Bookings during off-peak hours (evenings and weekends) are unrestricted, as are bookings less than 48 hours before a session.
- **You are not permitted to make bookings on behalf of other people.** The person booked in the system needs to be the person sitting at the microscope! If your colleague is away and asks you to help them with a reservation, please ask the BIRC staff to assist with this.
- **If a user has not shown up within the first 30 minutes of their booking it is considered forfeited and the system is free for anyone else to use.**
- If, for any reason, you need to cancel a booked session you must cancel the booking on the PPMS. If it is at short notice and you are the last user of the day, **it is your responsibility to ensure that the system is turned off.**
- If you swap a session with a member of your lab, you must update the booking details.
- Sessions canceled at least 16h before their start time will incur no charges.
- Complete or partial sessions canceled less than 16h before their start time will be charged at 100% of the normal rate for that system: therefore you should try to estimate a realistic session length so that you will not incur significant charges for unused time.
- No charges for canceled time will be imposed on the original user if another user subsequently books this time slot, therefore you should always bother to cancel, even at the last minute.
- Once a user has been logged onto a system for 8h of continuous use, they will be charged only 25% of the normal rate for the rest of that session, as long as they remain logged on.
- **If you believe you have a valid reason for late cancellation, please send us a request (by mail or phone) so that we can determine whether it is appropriate not to charge for the booked time. These cancellation rules are to ensure the most efficient use of the microscopes, not to penalize our loyal users!**

## Using the microscopes

### Before your session:

- Ensure that the equipment looks clean, undamaged and, if the system is off, that it has been switched off for the required minimum time (refer to the instructions on the wall). Report any problems and

damage to a member of the BIRC staff BEFORE starting your session so that we can trace the person responsible and ensure that they understand the appropriate procedures.

## Switching systems On/Off

- When switching a system on or off, please refer to the instructions posted by the respective microscope. Do not hand out copies of printed instructions to colleagues as we update this information on a regular basis and it is important to be working from the latest version.
- REMEMBER: switching certain lasers and mercury/xenon-based lamps off/on within short intervals drastically reduces their lifetime and can lead to hazardous explosions! Therefore a 2-HOUR RULE applies: Lasers and illuminators (unless LED or solid state) must be left on (in STANDBY mode), if the interval between two booking slots is 2 hours or less.
- If a system has just been switched off right before you planned to use it (you can see that from the booking schedule), give the lasers and lamps at least 30 minutes to cool down before re-starting the system.

## During your session:

- Use your individual PPMS account to log into the systems. **Never** use anyone else's account.
- Ensure that objective lenses only come into contact with the correct immersion medium (air/water/oil/glycerol/silicone oil) and only use reasonable amounts (1 drop of oil is usually sufficient).
- Focus carefully to avoid crashing the lens into the coverslip (check often by eye from the side to see if the objective is still in a safe position).
- Exchanging objectives between the systems is strictly forbidden unless approved by the BIRC staff.
- As objective lenses are delicate and expensive, please handle them with care. The objective turrets must always be lowered and centered before the stages are moved or homed (calibrated) during initialization, as well as at the end of the session.
- Avoid pressing down on motorized stages when changing sample holders, as they too are easily damaged.
- Immersion objective lenses should be cleaned only with lens paper and Sparkle, **never** using Kimwipes (for the DeltaVisions and OMX use cotton-tipped applicators dipped in Chloroform). The Kimwipes are provided for cleaning your slides only. Please perform cleaning as instructed during your training session.
- On inverted microscopes carefully clean the objective housing around the lens, too, to avoid oil wicking down into the optical components below the objective.
- Only use the oil provided at that microscope. Mixing oil of different brands can cause damage to lenses, so you must clean the coverslips of your samples with Sparkle before imaging them on a different microscope requiring different oil.
- Air/water objectives must not contact oil – if you realize that an air objective has become contaminated with oil by mistake, please ask the BIRC staff to help clean it. The objective lens housing and many softwares will tell you whether an objective is to be used with oil or other immersion media.

## At the end of your session:

To ensure that systems are switched off appropriately, first check the latest booking status of the instrument at the very end of your slot - remember, users may have created new bookings or deleted existing ones while you were at the microscope.

## Last user of the day:

The last user of the day is responsible for making sure the system has been shut down properly. If you were booked as the last user that day and you cancel your booking, you must inform the user prior to you or contact the BIRC staff. Users may e-mail the staff BEFORE 5 PM and ask them to switch off a system, but you MUST make sure you receive a response from a member of staff agreeing to do this. If not, you must come over and switch off the system yourself.

## Equipment damage

Accidents can happen, even to the most careful user. We know that. **Therefore, if you damage something and report it to us, you will not be penalized** - we will simply make sure that you understand proper use of the item. Unreported damage however - even a slide broken by crashing into an objective - may result in banning a user from the facility or charging the repair cost to the PI. Remember that a single objective lens can cost up to \$30,000!

## General facility rules

- You may not leave your samples in the facility beyond your session, unless approved in advance by BIRC staff.
- Samples may be left in the fridge for no longer than 1 day and must be in a container labelled on the outside with the user's full name.
- Cells in the incubator must be in dishes labelled with the user's name and the date. The user is also responsible for removing all cells from the facility and disposing of them properly at the end of their session.
- Any unlabeled samples will be disposed of without warning or notice.
- **Gloves must never be worn when handling the microscopes**, with the exception of the UltraMicroscope, where specific rules are provided during training. Gloves may be worn when preparing live cells at the tissue culture hood.
- Hazardous samples must be 100% sealed prior to bringing them to the facility, and the outside surface of the dish/chamber decontaminated. Only when the user is confident enough to handle the sample

without gloves will we feel confident that the microscope won't become contaminated! Remember, nobody else is using gloves, yet everybody is touching the microscopes.

- Removal of any BIRC equipment material (objectives, coverslips, immersion oil, lens paper etc.) from any microscope room is strictly forbidden.
- **No food or drinks are allowed within the BIRC, including the areas by the workstations, and no such items should be disposed of in the BIRC trash cans.**

## Data storage

- Data will be acquired directly to the server on some microscopes, or straight onto the hard drive on other systems. The procedure for a specific microscope will be explained to you during your training session - please follow it.
- Please back up your data to the server right after image acquisition. We don't guarantee safety of your data on any BIRC computer. Data stored on a microscope computer will be deleted without warning to free up space for the next users.
- You can transfer data to USB keys or external hard-drives **via the offline workstations only**. The microscope computers cannot have anti-viral software installed and therefore are at great risk of viruses. For the same reason, the microscope computers are disconnected from the internet.
- Internal users can connect to the BIRC server from their own lab and download the data across the network. Instructions for doing this can be found in the "Documents" section at the top of the PPMS online booking page. External users cannot do this so will need to bring an external hard drive to their sessions.
- For more detailed instructions on storing and accessing your data, please refer to Documents 2 and 3 under the Document tab on the PPMS.

## Acknowledgements and Co-authorships

- If you use the BIRC microscopes and/or have been trained or assisted by the BIRC staff in your research then they and the BIRC should be appropriately acknowledged in your publications **and** presentations.
- Certain microscopes were funded by specific granting agencies and there is a legal requirement to acknowledge these funds in any arising publications. Check the booking page for the instrument used for any such required statements.
- If you wish to collaborate with a member of the BIRC staff on a particular project then potential authorship should be discussed and agreed on before undertaking the work. A project outline, describing the work to be done and the contributions expected, should be produced and agreed on at the start of any collaborative project. Interactions with the staff during a project that grow to a significant level over time may also warrant co-authorship with a member of the BIRC staff.
- Please consult our website for the full policy on Acknowledgements and Co-authorships:

<https://www.rockefeller.edu/bioimaging/booking/>

## **Breaking the rules: the consequences...**

***We operate a “3 strikes and you're out” policy for breaking any of these rules.***

- **1st offence** - you will be warned and reminded of the rules;
- **2nd offence** - you will receive a second warning and your PI will be informed;
- **3rd offence** - you may be banned from using the microscopes for a minimum of 2 weeks.

## **Information**

- All BIRC users will receive periodic emails with any updates about BIRC systems (system problems, changes in policy, new equipment, upcoming events, etc.). New information about the systems may also be posted at the microscope itself, and system status updates will also be posted on the PPMS booking page.
- It is important to read these emails and posts to stay informed about any changes regarding the microscopes, as these might affect proper performance of the systems!

**Please contact the BIRC staff, if the rules described above are unclear to you.**