

GENERAL POLICY OF USE

Leica Stellaris 5 Confocal Microscope



Version 3
(January 2025)

Foreword

ACHUCARRO installed (in November 2021) the Leica Stellaris 5 confocal microscope.

To set the organisation of the correct use and maintenance of this equipment, this policy has been defined. This policy document is open to improvements and suggestion, fruit of the use and experience in the common and collaborative use of this equipment. Suggestions are taken by the Facility technicians (laura.escobar@achucarro.org and lorea.cortes@achucarro.org)

Property and right to use

This equipment is property of ACHUCARRO and was acquired with a subsidy of the Department of Education of the Basque Government, so it is open to the Basque Science Community, according to this policy of use.

Main technical specifications

- Objectives: HC PL APO 10x/0.40 Air CS2, HC PL APO 20x/0.75 Air CS2, PL APO 40x/1.30 Oil CS2, PL APO 63x/1.40 Oil CS2, PL APO 40x/1.10 Water CS2, HC APO L 40x/0.80 W U-V-I dipping
- Galvanometric Z-stage and motorized XY-stage for multiposition imaging (mosaic, time lapse).
- Second generation White Light Laser (WLL2).
- Ultraviolet Laser (405 nm excitation line, AOTF Flexible)
- Second generation Hybrid detectors (x3)
- Supercontinuum Fiber Laser: Excitation range between 485 – 685 nm. in 1nm steps. Pulsed laser. Pulse frequency: 80MHz (compatible with lifetime measurement applications for processing). Laser lines controlled by AOTF and AOBS that allow to vary power and the simultaneous use of up to 8 wavelengths simultaneously.
- TauSense module
- LIGHTNING super resolution module

Microscope reference personnel

Currently, Laura Escobar and Lorea Cortes are the people in charge of the technical issues of the microscope. In case of any doubt while using it, question, problem, ask them please.

- Laura Escobar laura.escobar@achucarro.org
- Lorea Cortés lorea.cortes@achucarro.org

Basic working conditions and procedures

The checklist with all the mandatory steps to start, run and stop the microscope is available at the microscope room. Laura Escobar will supervise the use, if needed.

Acknowledgement

Users MUST mention the use of this equipment in their publications and research outcomes as:

Achucarro Basque Center for Neuroscience-Imaging Facility (UPV/EHU Scientific Park, Spain)

GENERAL POLICY OF USE

Leica Stellaris 5 Confocal Microscope

Working Hours

To try to guarantee the availability of the microscope for all users/groups, each workday is divided into six computable timeslots, in term of group limitations: from 8:00 to 10:00, 10:00 to 12:00, 12:00 to 14:00, 14:00 to 16:00, 16:00 to 18:00 and 18:00 to 20:00.

The rest of the hours of the day / night are open to use by any autonomous user.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:00							
9:00							
10:00							
11:00							
12:00							
13:00							
14:00							
15:00							
16:00							
17:00							
18:00							
19:00							

Request of access for external people

Request access by writing to core-facilities@achucarro.org

Reservations Calendar (internal staff)

The use of the confocal microscope requires a previous reservation that will be made through the "[Agendo Science](#)" reservation management software.

Access and registration: in the search bar of your browser click :

<https://achucarro.agendo.science/>

and you will go to the initial page to registrate and create an account.

The email address from which you access this system is where you will receive all notifications related to your calendars, your reservations, possible changes, etc. So, from this point is going to be a very active account.

Remember to select the institute (Achucarro Basque Center for Neuroscience) and the lab you belong to. Once the registration requests are received, they will be approved by the administrators (mainly Aitor Palomino (aitor.palomino@achucarro.org) and Laura Escobar (laura.escobar@achucarro.org)) and you can request access to the calendars of the facilities that are of interest to you.

Group Leaders will be responsible for the use (and cost) of their group members, so you can establish your own (internal) request procedures.

Reservation Constraints

Each calendar presents a series of specific restrictions regarding the number of users per group and week, determined by the administrators according to the demand of each facility.

These restrictions are automatically applied when making a reservation.

GENERAL POLICY OF USE

Leica Stellaris 5 Confocal Microscope

User Priorities:

- According to affiliation:
 - Achucarro and UPV/EHU users have the maximum priority on the use of this equipment; after them,
 - Other non-for-profit research or technological centres within the Basque Science Community (or abroad); and finally,
 - Companies and private entities.

In exceptional cases, if a user of this third group has a special -time related- need and according to their pricing policy, they could be given priority over other users.

Penalties

Users that reserve a time slot that then do NOT use the microscope without releasing the reservation, could suffer a PENALTY on their next reservation(s).

In order to keep a good atmosphere in the use of the equipment, and in the whole centre, we kindly ask all the users to observe strictly the schedules and times of use, planning adequately the experiments, being tidy and clean with the equipment, furniture and the room.

User-levels

We define 2 levels of expertise/user profiles:

- Beginner: Mainly those that never used confocal microscopy independently before.
 - The Facility Technician provides training for being an independent user and certifies the knowledge and capabilities of the user.
 - Beginners can NEVER use the microscope alone and will always have to be assisted by the Facility Technician, or an independent user (Group Leader, Senior, Supervisor), depending on the technique or type of experiment.
 - The supervisor is responsible of any damage on the equipment.
- Independent:
 - People on this level are the Facility Technician, and those appointed this level by the technician.
 - Those that used confocal microscopy (Leica SP5, SP8) before, and have their experience validated by certificates of attendance to Leica official courses.
 - When training beginners, independent users will assure that new users have carefully read and understood this document (Policy of Use).

The will of the management of the center is that the maximum of the people receives and achieves a high expertise level in the use of this equipment.

GENERAL POLICY OF USE

Leica Stellaris 5 Confocal Microscope

Annex 1: Service Prices

These prices have been set according to the cost of maintenance of the equipment and taking into account the differences that each technique produces on the wear of the resources (lasers, etc.).

STANDARD FEES (EUROS PER HOUR)

	<i>Standard</i>
All type of users from non-for-profit research institutions	32,00 € per 2-hours slot

These prices don't include the taxes that would apply in each case.

Prices are valid until December 31, 2025.