

GENERAL POLICY OF USE

Femtonics Femto-2D Two Photon Microscope



Version 4
(January 2024)

Foreword

We incorporated this microscope in April 2017.

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 Manager (aitor.palomino@achucarro.org).

Features

The Femto-2D microscope allows fluorescence imaging of neurons in living brain slices and *in vivo*. In addition to imaging live cell morphologies, it can be used for calcium imaging and other functional fluorescence microscopy approaches. The setup is based on a tuneable femtosecond laser equipped with a DeepSee module to compensate pulse dispersion and facilitate imaging deeper inside tissue. GaAsP and PMT detectors, respectively, allows for dual colour imaging. The upright microscope is additionally fitted with electrophysiology equipment for two channel field or whole-cell recordings, as well as an LED epifluorescence module.

Main technical specifications

- Can be configured for *in vivo* or *in vitro* studies.
- Two channel fluorescence detection
- High precision galvanometric scanning
- MaiTai 690 – 1040 nm tuneable femtosecond excitation laser
- DeepSee pulse dispersion compensation
- Fully equipped for patch-clamp electrophysiology
- Two colour LED epifluorescence

This equipment is property of Achucarro Basque Center for Neuroscience Foundation and was acquired thanks to a direct subsidy of the Department of Education, Universities and Research of the Basque Government, so it is open to the Basque Science Community, according to this policy of use.

Microscope reference personnel

- Federico N. Soria federico.soria@achucarro.org

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, Leioa - Spain)

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Working Hours

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

	Monday	Tuesday	Wednesday	Thursday	Friday
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

Complete the next form: <https://labur.eus/achucarro-service-request>

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.

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.

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.

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Annex 1: Service Prices

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

STANDARD FEES (EUROS PER SLOTS OF 2-HOURS)

	Euros per timeslot
Achucarro	11,35
Research personnel of the UPV/EHU and other non-for-profit Research organisations and Technological Centres on the Basque Science and Technology Network	12,50
Other External organisations and Private Entities, Companies	14,50

These prices do not include the taxes that would apply in each case.