

POLICY OF USE

BD FACSJazz Cell Sorter and Analyser (FACS)

Version 6
(June 2024)

In January 2014 we incorporated one Fluorescence-Activated Cell Sorter and Analyser (FACS) from BD Biosciences, the model FACSJazz (2B/4YG). This equipment is property of ACHUCARRO, we purchased it with the financial support of the Basque Government, so it is open to the Basque Science, Technology, and Innovation community, according to this policy of use.

This policy defines the organisation for the correct use and maintenance of this equipment. This document is open to improvements and suggestion, fruit of the use and experience in the common and collaborative use of this equipment. The facility Technician takes suggestion and request of this policy.

Main technical specifications

Optics

- 488 nm and 561 nm lasers independently aligned.
- Objectives: 20x, 0.6NA microscope objective.
- Forward Scatter Detector and Filters: 75- and 50-mm lenses and PMT tube with a 488/10 BP filter OD3 neutral density filter.
- Side Scatter Detector and Filter: 90° collection lens and 488/10 BP filter PMT.
- Fluorescence Detectors and filters: 90° collection lens and PMTs (2B/4YG).

Fluidics

- Sheath pressure fixed at 27 psi (1.8 bar) with a consumption of 0.5 L/h.
- Autoclavable 7L sheath and waist containers, equipped with pressure and vacuum readout.
- 100 µm nozzle with replaceable fluidics path and bubble detector.

Performance

- Two-way sorting: 5- and 15-ml tubes.
- Plates and Slides: 6, 24, 96 and 384 well plates and user-defined collection devices.
- Temperature control by circulating water bath.
- Drop-delay confirmation with BD FACS Accudrop technology.

Signal Processing

- Eight data acquisition channels.
- 16 bit analog-to-digital conversion.
- Parallel data streams with channels ID and integrity check.
- Less than 1 correlation error per 10⁸ events.
- Maximum throughput rate: 200000 events/second.

FACS reference personnel

Currently, Laura Escobar is the person in charge of the technical issues of the FACS. She is the link with BD and has a deep knowledge and understanding of the whole capabilities of the machine.

In case of any doubt contact her laura.escobar@achucarro.org

Basic working conditions and procedures

The checklist with all the mandatory steps to start, run and stop the FACS is available at the facility room.

Nevertheless, the Facility Technician MUST support and assist the use of the equipment; you can contact her for any doubt, question, etc.



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Sorting Days/Times

The equipment requires being set and tuned, at least, 1 hour before starting the sorting to align lasers and Accudrop, so the daily timetable for this equipment is from 10:00 to 17:00 (Monday to Friday).

Depending on the duration of the assay (sorting or analysis by flow cytometry) it will be possible to make one or more experiments per day (the Facility Technician will adjust the calendar to get the most efficient timetable).

If the experiment ends at 18:00 or later, we will charge extra hours as the equipment also requires a process and protocol to shut it down.

Request of access

Complete the next form: <https://t.ly/achucarro-external-access>

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. In the case of the FACS calendar, the user makes a pre-reservation that must be confirmed by the facility technician, since this reservation must be subject to her availability and the schedule of the other facilities that require her assistance.

Penalties

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

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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User-levels

The operation of the equipment is limited to the Facility Technician. She will have the equipment prepared by the moment the assay starts and will clean the system up once this assay is finished.

Acknowledgement

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

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

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 resource/technique consumes.

STANDARD FEES (EUROS PER HOUR)

	Euros per hour of use
Internal	67
Research personnel of the UPV/EHU and other non-for-profit Research organisations and Technological Centres on the Basque Science and Technology Network	75
Other External organisations and Private Entities, Companies	82

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