DSF

DEPARTMENT OF
PHARMACEUTICAL AND
PHARMACOLOGICAL SCIENCES

Flow Cytometry and Cell Sorting Facility

Description
Flow cytometry is a powerful technology, that enables identification of cells or generally any particle in suspension on the basis of their physical and/or fluorescent characteristics.
The FC500 Beckman Coulter Cytofluorimeter allows to identify individual classes and populations of cells and measure their surface and intracellular markers to estimate functional states of cells, to perform cell cycle analysis, to study apoptosis, phagocytosis, kinetics of cell processes, to perform molecular-genetic analyses using fluorescence probes, etc.
The Becton-Dickinson FACSAriaIII™ Cell Sorter extends flow cytometry to the collection into a tube, plates or onto slides of subsets of a mixed cell population, in a purified form, by the electrostatic deflection of droplets containing target cells away from the main flow stream.

Location
Building C, Largo Meneghetti 2; Cod. Geotec -1 010

Facility manager
Dr. Federico Cusinato

Staff
Dr. Federico Cusinato, Dr.ssa Sara Bersani

Contacts
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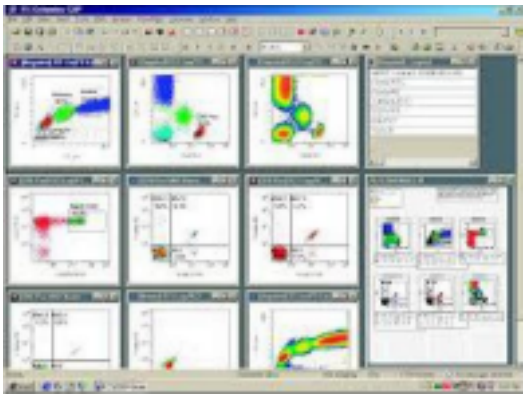
9:00 a.m. - 5:00 pm Monday-Friday
Contact the staff before booking, asking about facility rates.

Scientific supervisor
Prof.ssa Lisa Dalla Via

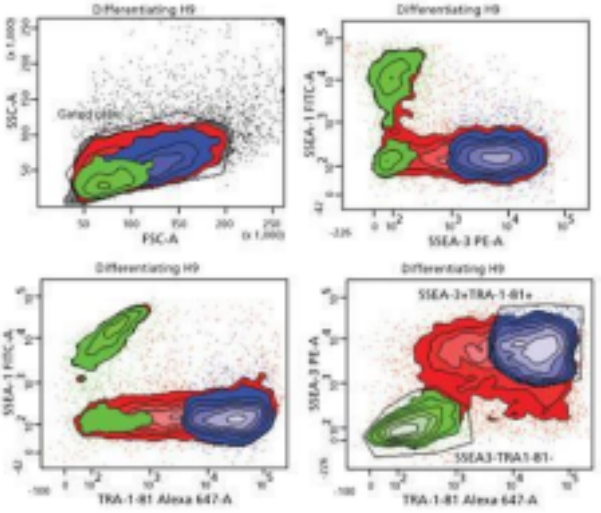
How to book
Ask to the staff for booking. Time of slot 30 min. Instructions are provided to users on the methodologies and the applications. The maintenance and operation of the equipment and the set-up of methods of analysis are coordinated by the staff in charge. Another task is the supervision of the planning, booking and reporting of devices.
The analyses are carried out by the staff, in the presence of the users, while others are directly done by the expert users, after specific training by the staff. The staff provides assistance and support in teaching duties and to external users.
The use of the instrument, supported by the staff, is also allowed to some “super-users”, experts in some specific fields, who can make their contribution to scientific research in terms of innovation in the development of new methods and new applications.
Equipment

FC500 Beckman Coulter Cytofluorimeter



This sophisticated benchtop flow cytometer is equipped with air-cooled argon ion laser (488 nm) and five photomultipliers for fluorescence signals at 525 (FITC), 575 (PE), 620 (ECD), 675 (APC) and 755 (PC7) nm. It has the additional capability of 'walk-away' operation through a carousel that may be loaded with up to 32 tubes, each to be run automatically. It provides automated tube-based acquisition for cell-based assays with a particle size range from 0.5 to 40 μm diameter. The powerful CXP software enables investigators to create custom panel reports and perform multiple tube panel based analysis. It is also possible to analyze data with Kaluza Analysis Software.

Becton-Dickinson FACSAriaIII™ Cell Sorter



The BD FACSAria III flow cytometer is a high-speed fixed-alignment benchtop cell sorter. It is at the same time cell analyzer and cell sorter. Being equipped with four lasers (405 nm, 488 nm, 561 nm and 633 nm), it provides multicolor analysis of distinct types of separated cells or particles with the detection of up to 16 fluorescent markers and 2 scatter parameters at a time. The instrument allows to identify individual classes and populations of cells and measure their surface and intracellular markers; to estimate functional states of cells, to perform cell cycle analysis; to study apoptosis, phagocytosis, kinetics of cell processes, to perform molecular-genetic analyses using fluorescence probes; etc. As cell sorter it is able of physically separating 4 cell populations simultaneously and sorted cells can be collected into tubes, plates, or onto slides.