

Flow Cytometry

At the School of
Biological Sciences.

What is it?

Flow cytometry is a technique used to detect and measure the physical and chemical characteristics of a population of cells or particles.

Widely practised today, cells or particles are detected by streaming them past one or more lasers producing a variety of light scattering and fluorescence.

How to access

We welcome all enquiries regarding possible uses.

All users that wish to use the flow cytometry facility located in the Department of Pathology can create an account via our online booking system PPMS.

Applications

Cell sorting:

- Separation of up to 6 sub-populations that can be used in several applications: immunophenotyping, cell cycle analysis, western blots, CRISPR screening, SMART-Seq, 10x genomics, etc.
- Bulk or single cell sorting into different collection tubes or multi-well plates

Analysis:

- Immunophenotyping
- Transfection efficiency by measuring fluorescent proteins levels
- Cell cycle
- Proliferation assays
- Apoptosis and cell viability assays
- RNA detection assays
- Intracellular calcium flux
- Rare event analysis

Instruments

Cell Sorters

- Beckman Coulter MoFlo Astrios (5 lasers, 19 detectors)
- BD Aria III (4 lasers, 16 detectors)
- BD Aria IIu (3 lasers, 9 detectors)

Analysers

- Cytex Biosciences Aurora (5 lasers, full spectrum analyser)
- Thermo Fischer Attune NxT (4 lasers, 14 detectors)
- Beckman Coulter CytoFLEX S (4 lasers, 13 parameters)
- BD LSR II (4 lasers, 17 parameters)

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