What is flow cytometry?

Flow cytometry is a technology that simultaneously measures and then analyses multiple physical characteristics of single particles, usually cells, as they flow in a fluid stream through one or more laser beams. The particle's relative size, relative internal complexity or granularity and relative fluorescence intensity are the properties measured by a flow cytometer. These characteristics are determined using an optical-to-electronic coupling system that records how the particle scatters incident laser light and emits fluorescence. Once the data is collected, it can be displayed as graphics or histograms and statistics can be generated.

Flow cytometry analysis

Common applications of flow cytometry are assessment of cell surface receptor expression (immunophenotyping), proliferation studies (Carboxyfluorescein Diacetate Succinimidyl Ester or CFSE), intracellular cytokine analysis, detection of fluorescent proteins like GFP, phosphoprotein analysis, cell cycle and apoptosis studies.

The platform is equipped with 3 cytometers used for cell analysis: a **BD LSRFortessa**, a **BD LSRFortessa X-20** and a **BD FACSCanto II**. To be allowed to use these instruments, users must take a 3-hour **MANDATORY** training session offered by the platform staff. Once trained, users are allowed to acquire their samples by themselves. The platform staff can also analyze your samples, this option is subject to a supplement.