

The Pediatrics/Winship Flow Cytometry Core is located in 640 sq ft of dedicated space on the 3rd floor of the Health Sciences Research Building (E362) and sites in the Winship Cancer Institute (C5027 and B3202). The Core consists of two dedicated cell sorter rooms capable of BSL2(+) level sorting and wet lab space housing the analysis instruments. The laboratories have ample bench space for sample handling and small equipment. Scheduling of instruments, training, and billing are performed on PPMS, a campus-wide core management software package. The Core has a full-time technical director providing education, analysis, and cell sorting services and another 3 FTE providing cell sorting, experimental design, and clinical specimen processing. Analysis can be performed on ten analyzers, including a BD FACSymphony A5 [6UV 7V 5B 6GY 3R], an identically configured FACSymphony A3, and a FACSymphony A1 [6V, 2B 5YG 3R]. We also have three five-laser Cytex Auroras [355nm, 405nm, 488nm, 561nm, & 640nm] and one four-laser Cytex Aurora, as well as a BC Cytoflex S [4V 2B 4YG 3R]. An Amnis ImageStream^x MkII cytometer also with 4 lasers (405nm, 488nm 561nm, & 642nm; 10 fluorescent channels) provides the capability for image cytometry. High throughput screening and plate-based assays can be performed on the iQue3 platform.

Cell sorting can be performed on a five laser Cytex Aurora CS or a BD FACSDiscover S8 imaging cell sorter. A BD Biosciences Rhapsody single cell capture system is available to aid multi-omic analyses. Analysis workstations are available for offline data analysis with multiple software packages, including FACSDiva, FACSCorus, FlowJo, SpectroFlo, CytExpert, IDEAS (machine learning and AI), and OMIQ. Data storage is available through campus-wide cloud services, AWS, and data backup on a separate NAS.