

UVa Flow Cytometry (FACS) Core

For more information about running an experiment at the FACS Core, visit our website at

<http://www.healthsystem.virginia.edu/internet/cytometry>

You'll find instruction for gaining access to the instruments, flow FAQs, protocols, and information about scheduling and training.

Keep an eye out for our luncheon seminar series. The Core regularly hosts researchers from other institutions whose work relies on flow cytometry.



Mike Solga, M.S.

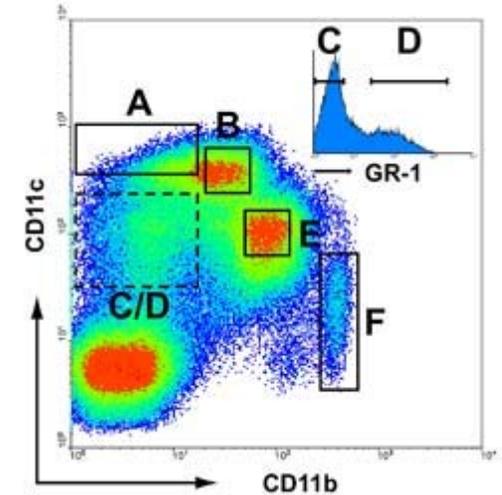


Paul Brewer, B.S.



Core Director Joanne Lannigan, M.S.

Our newest addition is Lesa Campbell, the FACS Core's administrative assistant (not pictured).



sorting
immunophenotyping
cell cycle & apoptosis analysis
proliferation studies
...and more



EXPERIMENT ASSISTANCE

The FACS Core technicians can help you use any of our instruments. They are also available to provide complimentary guidance and troubleshooting of experimental design to FACS Core users.



DATA ANALYSIS

Our technicians are highly experienced in analyzing and interpreting flow cytometry data.



TRAINING

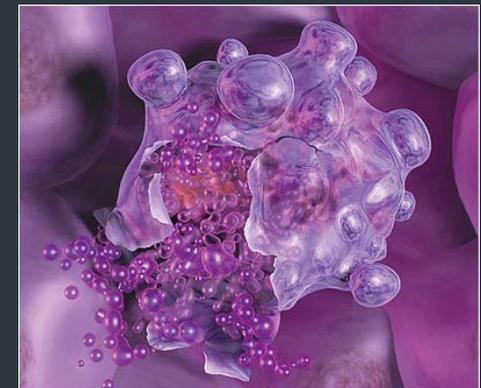
The Core holds comprehensive week-long training classes that instruct users in instrument use, data analysis, and the general theories and practices of flow cytometry. These classes are taught every quarter, check our webpage for the dates of upcoming classes.

Flow Cytometry Core Facility

<http://www.healthsystem.virginia.edu/internet/cytometry>

Main Lab/Office: Jordan Hall room 7051
FACS Vantage Sorter: Jordan 7067
Advanced Technologies Lab: Jordan 1213
Director's office: Jordan 7065

Main Lab/Office: 434.243.2711
Director's Office: 434.243.2695



The FACS Core owns and maintains nine instruments and four analysis computers

CyAn™ ADP LX 9 Color

The CyAn has 11 parameters (FSC, SSC, FL1-FL9) and is equipped with 488 nm, 633 nm, and 405 nm solid state lasers. This model is ideal for up to 9 color analysis.



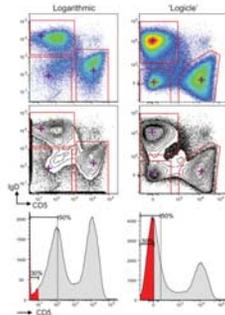
The Core houses three BD FACS Caliburs, two of which have been modified to analyze five colors at a time. The unique optical setups of each Calibur are shown in the table below. The Core's automatic 96-well plate reader can be used with any of the Caliburs.

Laser Excitation:	Calibur A	Calibur B	Calibur C
405nm	-	2*	-
488nm	3	3	3
635nm	2	1*	1

* A total of two channels can be selected among the 635 and 405 lasers of the B Calibur

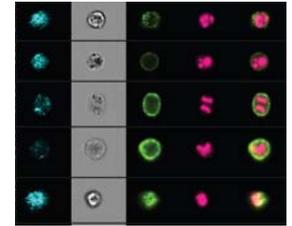
Becton Dickinson FACS Vantage SE Turbo Sorter with DIVA Option .

This instrument is capable of high speed and single cell sorting on up to ten parameters (forward & side scatter and 8 fluorescence detectors). The instrument is equipped with three lasers: 488nm air cooled, 633 nm HeNe, and multi-line water cooled laser with UV capability.



Data Analysis Workstations

The facility makes available both PC and Mac data analysis workstations. These workstations have a variety of data analysis software packages which can be used to analyze immunophenotyping, DNA, image, and multiplex analyte data. Our newest workstation is a Mac Pro with eight 2.8 GHz cores capable of high speed image processing.



The Amnis ImagerStream combines microscopy and flow cytometry in a single platform. So the visual information that you obtain with a microscope can be fully integrated with the population statistics you would typically get from a flow cytometer. It allows you to take full advantage of complex visual data to perform robust, multiparameter quantitative analyses. In the ImageStream captures 6 component images that can be brightfield, darkfield and up to 5 fluorescence images of every cell using its 405nm, 488nm and 658nm lasers.



Luminex 100 IS™ System

A flexible analyzer based on the principles of flow cytometry enables you to multiplex (simultaneously measure) up to 100 analytes in a single microplate well, using very small sample volumes. The system delivers fast and cost-effective bioassay results on many assay formats including nucleic acid assays, receptor-ligand assays, immunoassays and enzymatic assays.

Coming soon!

iCyt Reflection sorter with two HAPS

This state of the art sorter includes two separate sorting heads, so it will be able to process two separate sorts simultaneously. It will be capable of analyzing cells for at least 12 fluorescent colors.