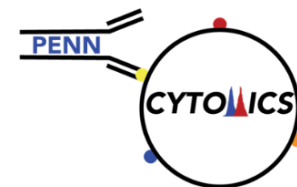


PENNFLOW

The Penn Cytomics and Cell Sorting Laboratory Newsletter



Volume 13


April 2024

Announcements

Rusty on operating a cytometer? Download/print our updated Analyzer Training Manual here: <https://upenn.box.com/s/8dsx65n9xvu3ti60r4rwninmigpltfbq>

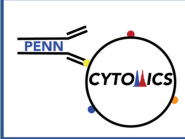
Got Clogs? Please refer to our Cell Prep Guidelines document to help minimize this: <https://upenn.box.com/s/k5y81rtkbj6oloe1hm4v5oftvh1nt9og>


Upcoming Events



Panel Design & Full Spectrum Cytometry Workshop

Tues, 4/16/24
John Morgan Reunion Auditorium
(bottom floor)





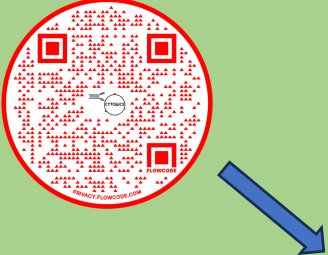
10am-11:30 Panel Design


Bring your own laptop for a workshop experience!

Live Broadcast option through Teams.

<https://events.teams.microsoft.com/event/bb2d608c-2d20-47b9-8309-f2a5577183dc@64afd9ba-0ecf-4acf-bc36-935f6235ba8b>

Register Here!





11:30-1pm Full Spectrum Cytometry

Conventional, Full Spectrum, and Best Practices.

...OR click here to register:

https://upenn.co1.qualtrics.com/jfe/form/SV_8dZqjyA34IEA3xc

Available Now!

EasyPanel, a web-based panel building software, now includes a laboratory inventory option! EasyPanel is FREE to all Penn/Penn affiliated investigators and is an intelligent and automated panel design tool that helps with panel optimization. All Penn Cytomics instrument configurations for both analyzers and cell sorters are already preloaded in the software. To get started, log in with your Penn email address and create an account. Select the cytometer you want to run on and complete the following 3 steps (image below) to get suggestions on panel optimization. See above: Register for EasyPanel hands-on workshop on 4/16! Here is the URL to access the software: <https://easypanel-v2.flow-cytometry.net/register>

The screenshot displays the EasyPanel web interface. At the top, there is a navigation bar with links: EasyPanel, Inventory, Smart Buyer, Antibody Search, and Spectrum Viewer. The user is logged in as Jennifer. The main header features the Penn University of Pennsylvania logo and the CYTOLOGICS logo. Below the header, there are two buttons: 'Saved Panels' and 'Save'. The interface is divided into four steps: Step 1: Select Cytometer, Step 2: Enter Panel Requirements, Step 3: Enter Panel Details, and Step 4: Get Optimized Panel Suggestion. Under Step 1, there is a dropdown menu for 'Select Cytometer*' with 'A3 Lite (The Child)' selected. Below this, there is a section for 'Antibody Products Source' with two options: 'Vendors' Commercial Catalogue' (selected) and 'My Inventory/Stock'. Under 'Fluorochromes Data Source', there are two options: 'Default' (selected) and 'Custom'. At the bottom, there are two sections for laser configurations: 'Laser UV355' with filters 379/28, 515/30, 586/15, 670/30, 740/35, and 820/60; and 'Laser Violet405' with filters 431/28, 470/15, 610/20, 670/30, 710/50, and 780/60.

For a quick tutorial, click here: <https://www.youtube.com/watch?v=xmPHMj8wMol>

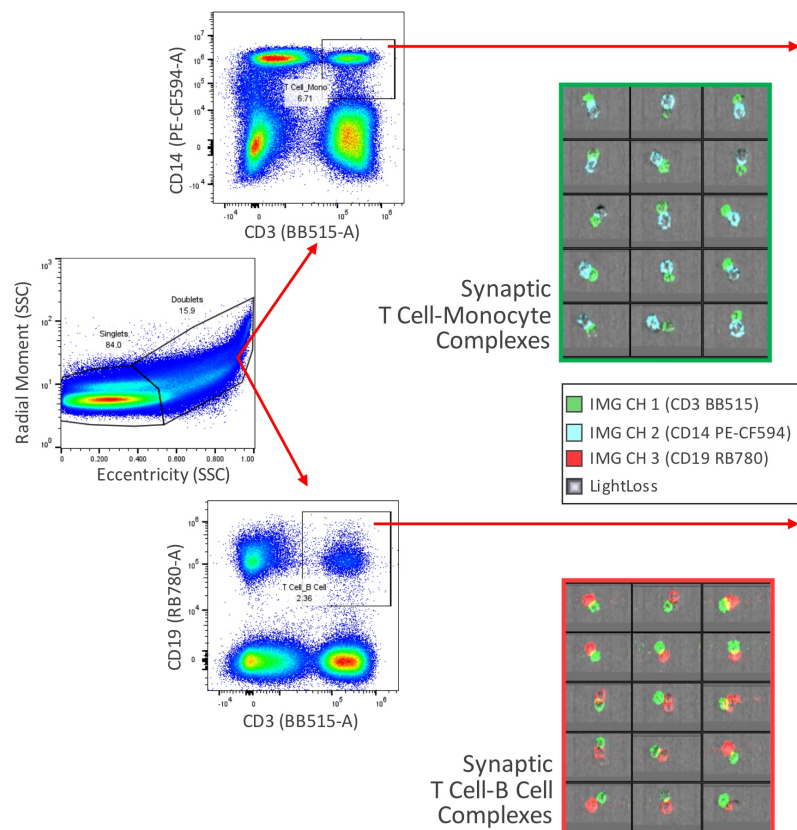
The BD Symphony S6 Cell Sorter is now available to all trained Aria users and is located in 206 JMB! If you haven't completed "Biohazardous Cell Sorting" training and would like to use this sorter, please request training asap. What makes the S6 different than other Aria sorters? The S6 is a high parameter sorter (30 colors) with a 6-way sort option. The instrument comes with Diva software so transitioning from an Aria is relatively seamless.

Coming Soon!

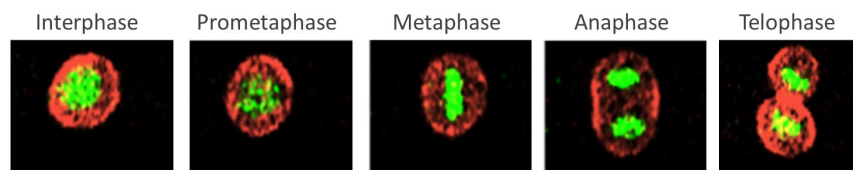
A new, modernized reservation scheduler will be replacing our existing PHP scheduler very soon! The tentative release date is 5/13. In the meantime, please make sure all funding sources, training requirements, and biosafety forms are up to date. You will not be able to book on the new scheduler if anything is expired or if the proper training wasn't completed for a particular instrument. Required training must be completed for our cell prep instruments as well (Cellaca, gentleMACS, and Rhapsody).

The new spectral imaging cell sorter, the BD Discover S8 with CellView Image Technology, is almost ready for staff-assisted sorting or analysis. If you have cells or clusters that you would like to image, sort, and/or analyze, please call the flow core to set up a free consultation. The Discover S8 is equipped with 85um, 100um, and 130um nozzle configurations, can do up to 6-way sorting, and can detect up to 64 colors.

Imaging Applications: Cell-Cell Interactions



Imaging applications: Cell cycle



New User Resource

Having issues cell sorting? SortRemedy, a new troubleshooting user resource, is now posted on every cell sorter in our core. SortRemedy consists of 8 unique QR codes that take you to a quick troubleshooting video for a particular problem. Please refer to it anytime you have a sorting issue before calling the core. It will save you time!

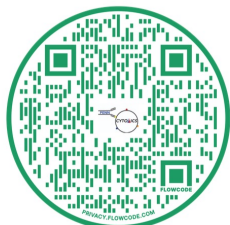
***Your samples must be FRESHLY filtered with a 35 μ m strainer. Small clumps/floaties can occur after 2 hours!**

SortRemedy

Sorting Video Troubleshooting Guide

The videos for this troubleshooting guide are from the Penn Cytomics YouTube page.

Quick Settings Check			
Nozzle μ m	Pressure	Freq	Gap
70	70 psi	87.0	6
100	20 psi	30.0	10
(Aria/Fusion)			
100 (S6)	20 psi	30.0	12
130	10 psi	12.0	16



Stream Not Turning On



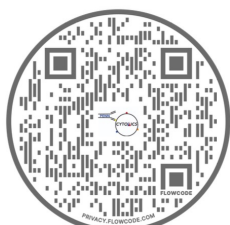
BISO (Pressure) Error



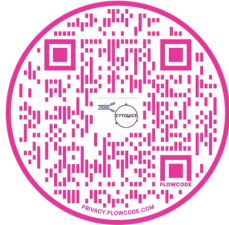
Waste Probe Errors



Stream and Camera Alignment



Running AccuDrop



Removing a Clog in BSC



Sweet Spot Changed
After Clog



No Events/CST Failing