Flow Cytometry Research Group

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MISSION

The Flow Cytometry Research Group (FCRG) was formed in 2012 by Peter Lopez (NYU) and Scott Tighe (UVM) with the goal of providing information related to the art of flow cytometry, including its cross-technology applications to genomics, proteomics, and other core-related areas.

SUMMARY

The FCRG focuses on flow cytometry-related projects. In many experimental workflows, cells sorted in a flow cytometry core are further analyzed in other cores. The FCRG emphasizes exploration of the various effects that cell sorting may or may not have on sorted material and thus the effects on downstream analysis by other shared facilities. The FCRG also undertakes studies leading to SOP development for improved sort precision and recovery.

CURRENT PROJECTS

DROP DELAY

Successful cell sorting is a fine balance between sample preparation and cytometer operation. As a critical part of the process, determining the recovery of the sort by calibration of the time it takes for the cell of interest to get from detection by the laser to the drop, otherwise known as drop delay, is fundamental. Inaccuracies in sort delay calibration can lead to decreased sort recovery, especially when particles sorted are larger than those used for drop delay calibration. The FCRG is undertaking a study to measure the accuracy of automated drop delay processes.

FLOW CYTOMETRY CORE SKILLS COURSE

The FCRG is developing community college curricula to provide technical training for entry level positions into scientific cores. Flow Cytometry core training is the pilot for what we hope will be an NSF grant funded program for ABRF/InnovATEBIO to develop CC Curricula for all scientific core disciplines. These modular core focused courses will help address the current scarcity of technically trained workforce for entry level positions in STEM core careers as well as focusing on greater DEI recruitment through being offered at community colleges.