



George Washington University Flow Cytometry Core Facility			
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Standard Operating Procedure (SOP): Flow Core Facility Safety

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1 PURPOSE

This safety manual and standard operating procedures details the biosafety plan for the use of samples on cytometry equipment in the GW Flow Cytometry Flow Core Facility. These procedures are meant to supplement the GW Biosafety & Exposure Control Manual.

2 SCOPE

These guidelines apply to all users of the flow cytometry core facility.

3 RESPONSIBILITIES

It is the responsibility of all flow cytometry staff to implement the safety requirements detailed in this manual and the GW Biosafety & Exposure Control Manual.

4 MATERIALS

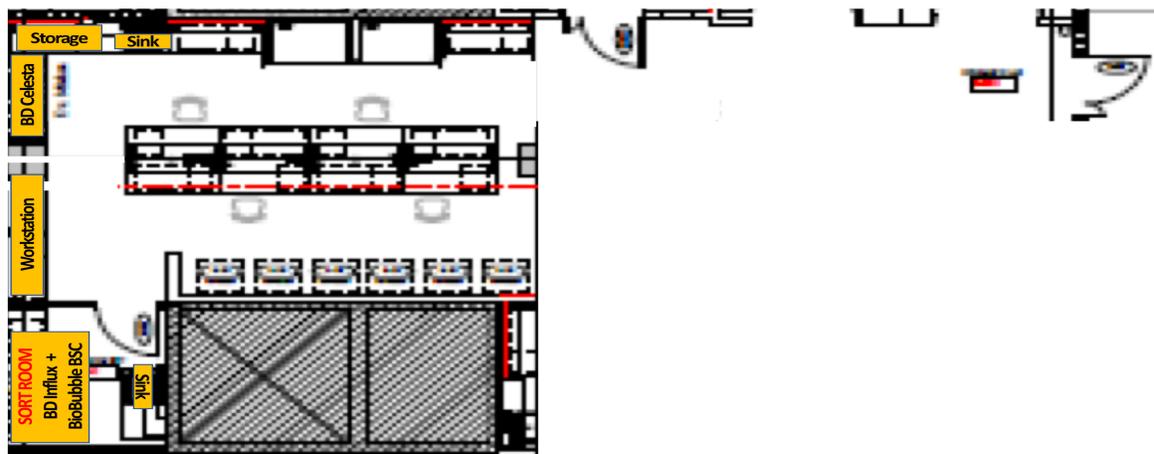
Item	Vendor	Catalog #
Disposable Lab Coat	VWR	490006-650
Gloves	VWR	82026-424,426,427
Pure Bright Germicidal Ultra Bleach 1 GAL	VWR	BDH7038-4L
70% Ethanol	VWR	BDH1164-4LP
Kim Wipes	VWR	470224-038
Washable Keyboard & Mouse	Wetkeys	
Biohazard Boxes	GWU	

5 PROCEDURES

5.1 Lab

The core facility is open to all researchers of the GW research community.

5.1a The facility is located on the 8th floor of the Science and Engineering hall (SEH). As a BSL2 lab, access is restricted. User's GW ID can be activated for entry to the facility by flow core staff only. Both the main room (40..) and the sort room (4048D) have sinks for handwashing, waste disposal, and eye washing stations.



5.2 Biosafety Level 2 (BSL2) & Biosafety Level 2 enhanced (BSL2+) practices

The flow core is a BSL2 laboratory working under BSL2+ enhanced practices.

*BSL2 conditions are for agents and materials not associated with an aerosol route of exposure, however, when these agents are used at research quantities and/or concentrations they may pose an aerosol risk. As a result, BSL2 containment may have some BSL3 practices and equipment employed to offset this risk (BSL2+).

5.2a All primary containers with biological materials (including rDNA) such as test tubes, petri dishes, flasks, etc., must be labeled with contents. When biological samples are transported, they must be carried in a container that is leak proof on bottom and sides such as a plastic tray or bin and which is free of outside contamination.

5.2b When conducting any work in a BSL2 lab (including rDNA), the minimum protective equipment includes: lab coat, eye protection and gloves. The flow core requires the following personal protective equipment (PPE):

- Lab coats (lab coats or gowns to protect the worker from splashes)
- Gloves (disposable gloves such as exam gloves must be discarded if contaminated or damaged)

Only close toe shoes are to be worn in the lab. No draping clothes or dangling jewelry. No food or drinks are allowed in the lab.

5.2c Surfaces, including the washable keyboard and mouse, must be disinfected after each appointment with 70% ethanol or 10% bleach.

For large spills, use 10% bleach with a contact time of 30mins. Equipment must be disinfected after each appointment. Review SOPs GW-FCCF-003 Cell Analysis Safety and GW-FCCF-004 Cell Sorting Safety for guidelines.

5.2d Disposal/Biohazardous waste management include red bag waste and liquid waste.

All blood or blood-soaked items, mammalian cells or tissues, microbiological cultures or recombinant DNA, and items that appear to be biological or medical in nature such as used gauze, bench paper, disposable lab coats and gloves must be disposed of in red bag medical waste. Liquid biohazard waste must be decontaminated before disposal in sink. Review SOPs GW-FCCF-003 BD Celesta Cell Analyzer Safety, GW-FCCF-004 Cytex Aurora Cell Analyzer Safety, and GW-FCCF-005 BD Influx Cell Sorter Safety for guidelines.

5.3 Cell analysis

The cores' analyzers are fully enclosed. Hazards associated with cell analysis relate mostly to sample preparation rather than the instrument itself. Review the SOPs GW-FCCF-003 BD Celesta Cell Analyzer Safety and GW-FCCF-004 Cytex Aurora Cell Analyzer Safety for guidelines.

5.4 Cell sorting

The BD Influx cell sorter is a jet-in-air sorter enclosed in a BioBubble BSC in room 8480D. Hazards associated with this type of sorter include exposure to laser beams and exposure to aerosol in the case of sorting stream clog. Review the SOP GW-FCCF-005 BD Influx Cell Sorter Safety for guidelines.

6 EMERGENCY CONTACT

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