

# **Adding Flow Cytometry to your Bio ARROW Protocol**

#### **Contact Information**

Please contact Karen Demick (263-9026) at the Office of Biological Safety if there are any further questions.

### **Work Covered by this Guidance Document:**

This guidance document **only** covers how to add flow cytometry and cell sorting experiments to your Bio-ARROW protocol. Please note that the BSL classification of samples may be different for standard procedures and for aerosol generating procedures. Typically, BSL levels are higher for cell sorting purposes because the sample is aerosolized by the sorter and aerosol incidents are common during operations, which greatly increases the risk of an exposure and transmission.

## **V. Description of Locations**:

For UWCCC Flow Core Facility, please list rooms and equipment that will be used for your experiments. Please consult with the UWCCC Flow Core Facility staff to determine the appropriate equipment:

Building	Room	Biosafety Level	Containment Equipment
WIMR	7016	BSL2	N/A
WIMR	7018D	BSL2	N/A
WIMR	7018E	BSL2	Biological safety cabinet (BSC), Fume Hood
WIMR	7018B	BSL2	Biological safety cabinet (BSC), Aerosol Management
			System (Whisper Buffalo)
McArdle Building	118	BSL2	Biological safety cabinet (BSC)

For other flow laboratories, please include all facility information as applicable.

## **VII. Biosafety Precautions - Containment**:

Please indicate the containment used for flow cytometry.

#### VII. Biosafety Precautions - Transport Procedure:

Please upload document(s) describing precautions used during transport for materials listed in your protocol.

For the UWCCC core flow laboratory, live cells and any samples associated with hazardous material must be transported in screw-cap tubes to reduce aerosol generation and spills when opening caps at the flow cytometer.

For other flow laboratories, please check with the facility to see if there are any specific transport requirements.

## **VII. Biosafety Precautions - PPE**:

Please check PPE worn during flow cytometry activities. If laboratory personnel will use respiratory protection while performing flow cytometry experiments, please clarify in 'PPE explain' as appropriate. Respiratory protection requirements for UWCCC Flow Core Facility staff should not be included in this section.

#### VII. Biosafety Precautions - Disinfection/Inactivation:

In 'Disinfect/inactivate (General)', please include disinfection procedures for surfaces and equipment under 'Other Material' or refer to facility SOP. Please note that some agents may not be compatible with flow cytometers.

In 'Spill procedure', please upload document(s) describing your laboratory's biological spill protocol(s).

## VIII. Design and Objectives:

Please briefly describe cells you plan to sort or analyze (i.e., origin, live or fixed cells, rDNA expression, genetic engineering methods, labels, etc.). If any of the agents or treatments used in the sort experiment are associated with aerosol hazard (i.e., toxin, hazardous genetic elements expressed like oncogenes, potentially infectious agents, viral vectors, etc.), all these should be listed and described. If experimental samples are not associated with any hazard risk (i.e., BSL-1 exempt), state that accordingly.