

## SickKids-UHN Flow Cytometry Facility Safety Orientation Checklist

This checklist is intended to act as a guide to ensure that staff and students receive the instruction and orientation necessary in order to carry out their work safely in FCF laboratories. This checklist also serves to provide a summary of training given. Certificates for Research Safety Training must be kept on file.

### Facility Overview

- The employee/student knows that all FCF labs are capable of handling samples designated as Risk Group 1 (RG1) or RG2. Agents assessed as RG3 or RG4 are not permitted.
- The employee/student knows that all SickKids users of the facility must have a valid SickKids Biosafety Permit and all UHN and external users (including observers) must have a valid UHN Research Biosafety Certificate. The SickKids Biosafety Permit and UHN Research Biosafety Certificate must cover the work being conducted in the FCF facility.
- The employee/student has completed UHN Research Safety Training or SickKids Biological and Chemical Safety Training (submit proof by email).
- The employee/student knows that access is restricted to FCF staff and registered users of the facility who have been issued a security access card. This security access card may not be used by or transferred to anyone other than the person to whom it is issued.
- The employee/student knows that facility laboratory doors are closed and locked at all times.

### Basic Laboratory Safety

- The employee/student has been instructed on the FCF laboratory specific emergency response plan and the location the emergency plan is posted.
- The employee/student knows the locations and operating procedures of all safety equipment including:
  - Emergency Eyewash Stations and Showers
  - Fire Extinguishers
  - Location of Emergency Exits and Emergency Lights
  - Hazardous Material Spill Kits
  - Biological Safety Cabinets
- The employee/student has been instructed on the appropriate measures to take in case of a chemical or biohazard spill, exposure or incident.
- The employee/student has been instructed in the safe handling and disposal of biological agents used in the FCF laboratories.
- The employee/student has been instructed in the location and use of personal protective equipment:
  - laboratory front-closed gowns (which will be provided by the FCF)
  - safety glasses, goggles and face shields

- gloves
  - safety glasses, goggles and face shields
- The employee/student knows that the following actions are prohibited in the FCF laboratories:
- eating, drinking, and storage of food
  - pipetting samples or any material by mouth
  - wearing of sandals or any open toed or open heeled shoes
- The employee/student has been instructed to wear laboratory gloves while handling samples in FCF laboratories.
- The employee/student knows in the transportation of all samples that all primary containers (FACS tubes, screw cap tubes, etc.) must be sealed (i.e. no open tubes in racks). In addition, all sealed primary containers must be transported to the facility in a secondary, sealed, leak-proof container. The leak-proof secondary container (e.g. 'tupperware'-type containers with tight fitting lid) should be able to contain the contents should the item be tipped/dropped in transit. Transportation of samples using public thoroughfares must be compliant with Transportation of Dangerous Goods Act (<http://www.tc.gc.ca/eng/acts-regulations/acts-1992c34.htm>).
- The employee/student knows that manipulation (pipetting, tube transfers, aliquoting, etc.) of all RG2 samples e.g. blood or tissues from humans, must be done within a FCF certified class II Type A2 BSC.
- The employee/student has been instructed to wash their hands with soap and water at a designated handwashing sink before leaving the laboratory.

## Special Laboratory Safety Procedures

### Use of Analyzers

- The employee/student knows that all users are required to be trained by FCF staff.
- The employee/student knows that personal login accounts on analytical instruments may only be used by the person whom the account belongs to.
- The employee/student knows the biosafety requirements for the analysis of different sample types as outlined in Table 1 ("FCF Biosafety Requirements for Analysis and Sorting of Different Sample Types") in Appendix I of the FCF Biosafety Procedures document.
- The employee/student has been instructed to complete the Analysis Biosafety Information form (see Appendix II of the FCF Biosafety Procedures document) when booking analysis appointments. This form must be completed to make the analysis appointment. Only samples specified in the form can be analyzed.
- The employee/student knows that as noted in Appendix I, Table 1 ("FCF Biosafety Requirements for Analysis and Sorting of Different Sample Types"), RG1 and RG2 agents may be run unfixed. All RG2 biohazardous agents run on analyzers should be fixed, as outlined below, unless it is not possible due to the nature of the experiment (e.g. calcium flux assays).
- Users must don safety eyewear when running unfixed RG2 biohazardous agents on analyzers to minimize risk of exposure due to accidental splashing/droplets. The standard fixative used in TMDT FCF

is 0.5-2 per cent paraformaldehyde for at least 30 minutes on ice after immunofluorescence staining is complete. Alternative fixation procedures may be required as outlined by SickKids Biosafety Permit or UHN Research Biosafety Certificate. Use of any other fixation procedure must be pre-approved by the FCF and **must** be proven effective for agents being used. Prior notification (at least 1 week) and experiment details must be provided to the FCF manager by email. RG2 samples, specified by UHN Research or SickKids Biosafety Committee as requiring Level 3 Operations, must be analyzed on a sorter/analyzer contained within a FCF certified class II Type A2 BSC.

- The employee/student knows that live RG2 samples, specified by UHN Research or SickKids Biosafety Committee as requiring Level 3 Operations, must be analyzed on a sorter/analyzer contained within a FCF certified class II Type A2 BSC.
- The employee/student knows that cells that are labeled with any radioactive material are not permitted in the FCF and may NOT be run on any sorter or analytical instrument.
- The employee/student knows that yeast and bacteria cannot be analyzed without FCF staff assistance. Prior notification (at least 1 week) and experimental details must be provided to the FCF manager by email.
- The employee/student knows that samples must be clump free and should be filtered immediately prior to being run.
- The employee/student has been instructed on the appropriate decontamination procedures.

#### **Use of Sorters**

- The employee/student knows the biosafety requirements for the sorting of different sample types as outlined in Table 1 ("FCF Biosafety Requirements for Analysis and Sorting of Different Sample Types") in Appendix I of the FCF Biosafety Procedures document.
- The employee/student has been instructed to complete the Sorting Biosafety Information form (see Appendix III) when booking sort appointments. Only samples specified in the form will be sorted.
- The employee/student knows that samples must be clump free and should be filtered immediately prior to being run.
- The employee/student has been instructed to remove unused cell samples and sorted cells from the FCF. Policy for transport of unused samples is as in section 2.1.6. of the FCF Biosafety Procedures document. Unused samples are to be treated (i.e. disposal, storage culture) as per federal, provincial, regional and host institutional requirements.
- RG3 and RG4 biohazardous agents are not permitted in the FCF and may NOT be run on any sorter or analytical instrument.
- The employee/student knows that cells labeled with any radioactive material are not permitted in the FCF and may NOT be run on any sorter or analytical instrument.

#### **Questions and Concerns:**



University Health Network  
Research

**Name of Employee/Student (print):**

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Employee/student signature

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Date:

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