

Standard Operating Procedure General Lab Safety Rules and Practices	
SOP Number: <u>SOP-GLSRP-02</u>	Category: <u>Lab Process</u>
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Issued by: Director, Health Sciences Research	

1.0 POLICY

Users of the W.J. Henderson Centre for Patient-Oriented Research (WJHCPOR) must be trained and familiar with general lab safety rules when accessing the Research Centrifuge Room (Level 2 Biohazard Lab) and Research Freezer Room.

2.0 PURPOSE

To reduce the possibility of reducing exposure to hazardous materials, minimizing the risk of transmission of infectious diseases, and preventing personal injury and illness.

3.0 DEFINITIONS

Hazardous Material - any substance or compound that has the capability of producing adverse effects to the health, well-being and safety of an individual.

Infectious Disease- Infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one individual to another individual. Examples include Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), and Hepatitis C Virus (HCV).

4.0 PROCEDURE

General Rules of Laboratory Conduct

Users are responsible for:

- Participating in the WJHCPOR orientation and training on general rules of laboratory conduct and safety for the use of the Research Centrifuge Room (Level 2 Biohazard Lab) and Research Freezer Room.
- Reviewing and familiarizing oneself with information contained within Material Safety Data Sheets (MSDS) for all hazardous materials found in the use of the Research Centrifuge Room (Level 2 Biohazard Lab).

- Users need to familiarize themselves with the location and use of emergency exits, fire alarms, fire extinguishers, emergency spill kits, and emergency eyewash stations. See “Emergency Eyewash Safety” SOP.
- Ensuring immunizations and vaccinations are up-to-date.
- Being familiar with the health risks associated with the use of human tissue, blood, or other bodily fluids. See “Human Blood, Tissue or Other Body Fluid” SOP.
- Not allowing unauthorized users to enter the Research Centrifuge Room (Level 2 Biohazard Lab) and Research Freezer Room. Access must be restricted at all times.
- Not propping the doors of the Research Centrifuge Room and Research Freezer Room open. These rooms **MUST** remain locked and secure when unattended.
- Wearing appropriate personal protective equipment (PPE) including a laboratory coat over their street clothes, safety glasses and gloves. Laboratory coats must be removed and hung on the hooks prior to leaving the Research Centrifuge Room (Level 2 Biohazard Lab). Shoes must cover the top, toes and heel of the foot. See “Personal Protective Equipment” SOP.
- Ensuring proper hand-washing occurs prior to leaving the Level 2 Biohazard Lab (Research Centrifuge Room). Users **MUST** remove laboratory coats/gloves before entering other non-laboratory areas within WJHCPOR which are considered to be clean.
- Not eating, drinking, or applying lip balm/cosmetics/contact lenses. Users need to avoid touching face (i.e. inserting fingers/pencils in their mouths or licking labels/envelopes) while in the Research Centrifuge Room and Research Freezer Room.
- Not storing any food or beverages in the laboratory refrigerator or freezers.
- Ensuring long hair (including beards) is properly secured.
- Restraining loose clothing and removing jewelry while in the Research Centrifuge Room and Research Freezer Room as there is a danger of it being caught in equipment or contaminated by infectious substances or chemicals.
- Keeping personal property (i.e. cell phones, purses/bags, etc.) out of the Research Centrifuge Room and Research Freezer Room. Lockers are available in the Staff Kitchen within WJHCPOR to store personal property. If a cell phone is brought into the Research Centrifuge Room for work purposes only, it **MUST** be placed in a sealed zip lock bag and **ONLY** used through the sealed bag. Prior to exiting the Research Centrifuge Room, the outside of the bag is to be disinfected with an Oxivir®/Accel® INTERvention wipe and the bag discarded in the appropriate waste container. Headsets/earbuds are **NOT** permitted in the Research Centrifuge Room.
- Wearing their Kingston Health Sciences Centre (KHSC) approved hospital identification badge (displayed at chest level and visible) at all times when accessing the spaces within the WJHCPOR.

- Ensuring the safety of other users of the facility. Incidents (i.e. spills, accidents, exposure) are reported immediately. See “Accidental Occupational Exposure and Reporting Workplace Incidents” SOP.
- Checking the safe working condition of all research equipment before operating it.
- Conducting all laboratory procedures that have the potential to generate aerosols or droplets in a biological safety cabinet. See “Biological Safety Cabinet” SOP.
- Using only mechanical pipetting devices or disposable pipettes for pipetting. Users **MUST** not mouth pipette. Pipetting in biological safety cabinet only.
- Proper use of the ambient temperature and refrigerated centrifuges. Use the aerosol resistant caps provided for the rotor buckets and check the caps and sealing rings (O-rings) for damage prior to use. If using the refrigerated centrifuge, the centrifuge lid should be left open or ajar when the centrifuge is turned off at the end of your specimen processing so that any condensation present dries as quickly as possible. See “Centrifuge Safety” SOP.
- Keeping all laboratory bench areas in the Research Centrifuge Room and Research Freezer Room neat, organized and free of clutter and tripping hazards.
- Cleaning and decontaminating **ALL** laboratory bench surfaces and research equipment before and after use with Oxivir®/Accel® INTERVention wipes. If a pipette is contaminated internally, the entire unit must be disassembled and decontaminated. Users **MUST** notify a designated KGHRI staff member who will carry out this step. In the interim users can use disposable pipettes provided in the Research Centrifuge Room as a back-up.
 - Cleaning and decontaminating **ALL** laboratory bench surfaces and research equipment with Sporicidal disinfectant after processing biospecimens from research participants infected with Clostridium difficile (C. difficile). The Sporicidal disinfectant is located in the cabinet beneath the dirty sink. **DO NOT USE** Oxivir®/Accel® INTERVention for this type of clean up.
- Not using the laboratory bench area for completing forms or documents. Users must either use the cart provided in the Research Centrifuge Room and Research Freezer Room or bring their own clean cart for documentation. The laboratory bench surfaces **MUST** not be used.
- Proper use and disposal of needles, syringes and broken glass using the appropriate Sharps containers located in the Research Centrifuge Room and Research Freezer Room.
- Ensuring proper disposal of biological waste. See “Disposal of Biohazardous and Sharps Waste” SOP.
- Ensuring that appropriate safety warnings and/or labels accompany any sample/substance being moved from one area of the WJHCPOR to another area of the WJHCPOR.

- Proper use of the Pneumatic Tube System. See “Pneumatic Tube System” SOP.

Kingston General Health Research Institute (KGHRI) is responsible for:

- Providing orientation and training on general rules of laboratory conduct and safety when using the Research Centrifuge Room (Level 2 Biohazard Lab) and Research Freezer Room.
- Ensuring that Research Centrifuge Room and Research Freezer Room are locked and secure at all times.
- Granting access to users Research Centrifuge Room and Research Freezer Room who have been trained/credentialed by the designated KGHRI staff member.
- Providing safe working conditions in all areas within WJHCPOR for users and ensuring all research equipment is functioning and operating properly.
- Providing access to PPE (laboratory coats, safety glasses, gloves) for use in the Research Centrifuge Room (Level 2 Biohazard Lab) and Research Freezer Room.
- Providing Sharps containers and other biological waste disposable containers in the Level 2 Biohazard Lab (Research Centrifuge Room).
- Posting hazard warning signs indicating risk level of agents being used in the Research Centrifuge Room (Level 2 Biohazard Lab) and Research Freezer Room.
- Ensuring all fridges and freezers used for the storage of biological materials, chemicals or drugs are labelled with the standard "Hazard" symbols or equivalent and must include signage indicating “no food or drink”.
- Ensuring dedicated hand washing sinks are located in areas where biological materials are handled close to exits, preferably with foot, knee or automatic controls. Ensuring appropriate hand washing materials are provided.
- Ensuring emergency eyewash stations are located in areas where biological materials are handled and users are trained on their location and use.
- Cleaning and disinfecting any research equipment to be repaired prior to repair.
- Providing regular maintenance of any research equipment in the Research Centrifuge Room (Level 2 Biohazard Lab) and Research Freezer Room and making maintenance and calibration records available to users. See “Equipment Calibration and Maintenance” SOP and “Refrigerator and Freezer Use and Monitoring” SOP.

5.0 SOP HISTORY

SOP Number	Date Issued	Summary of Revisions
SOP-GLSRP-01	01-DEC-2017	Original version.
SOP-GLSRP-02	01-MAY-2019	Bi-annual review of SOP completed. SOP header format updated. SOP version number updated. SOP effective date updated. Removed “Contacts” section from SOP. Updated section number for “SOP History”. Under Section 4.0, under “General Rules of Laboratory Conduct”, under “Users Responsibilities”, under bullet 14, replaced “Oxivir®” with “Oxivir®/Accel® INTERVention”. Under Section 4.0, under “General Rules of Laboratory Conduct”, under “Users Responsibilities”, added new bullet after bullet 14 related to wearing hospital identification badge. Remaining bullets followed new bullet. Under Section 4.0, under “General Rules of Laboratory Conduct”, under “Users Responsibilities”, under bullet 22, replaced “Oxivir®” with “Oxivir®/Accel® INTERVention”. Under Section 4.0, under “General Rules of Laboratory Conduct”, under “Users Responsibilities”, under bullet 22 added a new sub-bullet 1 related to Sporicidal disinfectant. Updated “SOP History” section.