Recommendations for Lab Coat Selection, Use and Care when working with Biological Agents

**Provision of Lab Coats**
- PIs/supervisors are to supply laboratory employees and graduate students in research labs with lab coats. Ideally lab workers should have three coats. One to wear, one in the wash and one clean one for emergencies although disposable lab coats could be provided for emergency use. (Refer to the Workplace Health and Safety Act Chapter W210 10/2 Part6).
- PIs/supervisors are to supply all visitors with laboratory coats and any other necessary PPE. (Laboratory Biosafety Guidelines 3.1.1)

**Selection of Lab Coats**
Preference should be given to a lab coat with the following characteristics:
- Quick release fastenings, e.g. quick release studs or Velcro, that provide coverage up to the neck.
- Close fitting cuffs.
- Flame retardant material.
- Shrink resistant even during autoclaving.
- Sufficiently impermeable to protect clothing worn underneath.
- Cover the knees.
- If work with chemical or radioactive materials is in use in the lab as well, assess the lab coat choices for suitability for these hazards as well.

**Use of Lab Coats**
- Wear lab coats buttoned up.
- Laboratory coats should be worn in the lab and removed when leaving the containment area or lab.
- Do not wear your lab coat in non-laboratory areas. For example in public hallways, lunch rooms, office areas, elevators or other public access spaces.
- Remove your lab coat and wash your hands before going to the bathroom.
- Departments should clearly identify access control points or restricted biosafety containment areas with the U of M WHI-Placard. Refer to the Draft Guidelines for Work with Biological Agents in Shared Research Lab Spaces and/or Equipment Areas for more suggestions.
- Based on the nature of the procedures and biological agents in use, a risk assessment may require back-closing gowns for use at the Biological Safety Cabinet (BSC).
- **For Undergraduate labs:** Lab coats are to be dedicated to the one facility/room/course for the duration of the term.

**Storage of Lab Coats**
- Laboratory clothing must not be stored in contact with street clothing.
- Lab coats which are in current use should be stored individually. For example, not more than one per hook or hanger.
- Clean lab coats storage should be separated from the in-use lab coat storage.
- Storage on the back of chairs should only be considered where there are no other alternatives and then only when there is a detailed departmental SOP.
- **For Undergraduate labs:** Alternate storage (e.g. turn inside-out and store in plastic bag) given there is a written SOP in the course lab manual.

**Cleaning/ Laundering of Lab Coats**
- Check and clean lab coats at a regular interval (weekly recommended or based on use).
- **Lab coats from CL 1-3 research labs must not be taken home to launder.**
- Where a known or suspect contamination/spill from a biological agent occurs, the lab coat must be autoclaved or treated with an effective decontaminant before laundering (unless laundering facilities are within the containment laboratory and have been proven to be effective in decontamination).
• Do not autoclave lab coats that are additionally contaminated with chemical or radioactive material.
• The options for laundering include:
  o **Cleaning by professionals** (preferred method) who have been informed of the potential for *incidental contamination*. This does not include, for example, residential Laundromats or Dry-Cleaners.
  o **In-house laundry facility**-This is an option under the following conditions:
    ▪ When there are laundry facilities available in the same building as the lab.
    ▪ If there is a written SWP in place that observes universal precautions, provides adequate disinfection and cleaning of the coats, and lab coats are laundered separately from routine laundry. Consider use of a **water-soluble bag** for collection of lab coats.
    ▪ Secondary containment is required for the transport of lab coats through public hallways to a laundry facility.
    ▪ Washers and dryers are maintained according manufacturers requirements.
  o **Undergraduate labs** using biological materials:
    ▪ Option A: Use of disposable lab coats which can be re-used for one term and then autoclaved before final disposal at the end of the course. Again with written instructions for the use and storage in the lab and department. Costs for disposable lab coats can be well under $5 per coat.
    ▪ Option B: Personal re-usable lab coats can be home laundered where the work was only with Risk Group 1 organisms and there is a written SOP for transport and laundering instructions.
    ▪ Option C: Lab coats are autoclaved by the department before returning them to the students to take home for laundering.
    ▪ Option D: Lab coats are collected by the course instructor at the end of the term and sent for professional cleaning (only if they meet the criteria above) and then students can pick them up again.

**Regulatory Considerations**

A. **Public Health Agency of Canada’s Laboratory Biosafety Guidelines 3.1.1 General Practices:**
   The following general practices are required for all laboratories handling infectious substances.
   
   2. Personnel must receive training on the potential hazards associated with the work involved and the necessary precautions to prevent exposure to infectious agents and release of contained material; personnel must show evidence that they understood the training provided; training must be documented and signed by both the employee and supervisor; retraining programs should also be implemented.
   
   10. Protective laboratory clothing, properly fastened, must be worn by all personnel, including visitors, trainees and others entering or working in the laboratory, suitable footwear with closed toes and heels must be worn in all laboratory areas.
   
   13. Protective laboratory clothing must not be worn in non-laboratory areas; laboratory clothing must not be stored in contact with street clothing.
   
   14. If a known or suspected exposure occurs, contaminated clothing must be decontaminated before laundering (unless laundering facilities are within the containment laboratory and have been proven to be effective in decontamination).

B. **Manitoba Regulation 217/2006 Workplace Safety and Health Regulation PART 6: PERSONAL PROTECTIVE EQUIPMENT**
   
   **SPECIFIC TYPES OF PERSONAL PROTECTIVE EQUIPMENT**
   
   **Protective clothing**
   
   6.9(1) If a work process may create a risk to the safety or health of a worker from contamination of the worker's skin or clothing by a hazardous substance, an employer must
   (a) provide the worker with protective clothing appropriate for the risk; and
   (b) launder or dispose of the protective clothing on a regular basis.
   
   6.9(2) If an employer is required to provide protective clothing under subsection (1), the employer must provide a place to store the worker's street clothing that is separate.

   
   2.10p Wear the appropriate personnel protective equipment.
   
   2.10w Personal protective equipment (gloves, apron, lab coats, overalls etc.) are to be used in the laboratory/facility and should be removed before leaving the room. Remove laboratory coats immediately upon significant contamination.