Universal/Standard Precautions for Handling

HUMAN SPECIMENS

**Potential Hazards**
- Potential for many types of bloodborne pathogens, including but not limited to, Hepatitis B, Hepatitis C, and Human Immunodeficiency Virus (HIV).
- Routes of exposure: percutaneous (non-intact skin, injections, punctures, lacerations) or mucous membrane (eyes, nose, mouth) contact.
- If exposed, acute or chronic illnesses could occur, i.e. chronic Hep C, HIV-AIDS.

**Medical Screening**
- Complete the following through Employee Occupational Health and Wellness (EOHW) (919-684-3136), Duke Clinic in the sub-basement of the Orange Zone (Room 0320):
  - EOHW health screening for laboratory worker
  - Must be offered the hepatitis B vaccination
    - If you have prior vaccination records, contact EOHW to check if they meet the requirements.

**Work Practice Controls**
- Maintaining proper signage and labeling is the laboratory staff's responsibility.
- Signs must be posted on equipment that have biohazards and at the room entry.
- Area must be secured when no one is present.
- For aerosol-generating procedures, use a biological safety cabinet (BSC). If a BSC is not available, use a combination of other controls (equipment, splash guards) and PPE.
- Wash hands immediately after removing gloves and before leaving the work area.
- No mouth pipetting.
- No eating, drinking or applying cosmetics (including chapstick) in the work area.
- Use safety sharp devices (safer sharps).
- If centrifuging, refer to Centrifugation Precautions.

**Transport**
- Use a sealed, leak-proof container to transport materials.

**Personal Protective Equipment (PPE)**
- Lab coat (or gown/twyek, etc.) and gloves required. Mucous membrane protection (e.g. safety glasses or face shield) must be used if there is a potential for splash or spray, or aerosol-generating procedures outside the BSC, such as when opening tube and cleaning up spills.
- Remove PPE prior to leaving the lab area. Wash hands.

**Cleaning & Disinfection**
- Use an EPA-registered disinfectant that is effective against bloodborne pathogens listed above. Refer to the label for dilution and contact time.

**Waste**
- See Duke's Medical Waste Management policy [linked here]
- Liquid waste: Treat with 1:10 household bleach for 30 minutes before being carefully poured down the drain (while wearing full face protection), followed by a copious amount of water to prevent corrosion of the drain pipes.
- Solid disposal items:
  - If autoclaving: Place in an autoclavable bag that is loosely closed to allow for steam penetration. Place bag in a secondary autoclavable tray/open bin (to prevent or contain leaks) and autoclave for 90 minutes at 121 degrees Celsius, 15 p.s.i. Allow to cool. Place in leak-proof containment and transport to the building dumpster.
  - If not autoclaving: Follow guidelines in policy (above) for medical waste pick-up.
- Sharps: Activate safety device (if available) and place sharps immediately in puncture resistant sharps container (needle box); close when container is two-thirds filled or sooner. DO NOT attempt to jam used needles into a full container. Follow solid disposal guidelines.

**Other**
- Wear full PPE, including a lab coat, disposable gloves, and full face protection.
- Pick up sharp items with mechanical device and place into sharps container.
- Cover spill with paper towel or other absorbent materials.
- Decontaminate area with 1:10 dilution of bleach:water (at least 0.5% sodium hypochlorite) or use an approved hospital disinfectant.
- Pour disinfectant on spill, first around the outer edges and working in. Let sit for 20 minutes.
- Repeat disinfection of area following the above steps.
- Refer to the Emergency Response Guide posted in your work area for more information.

**Exposures**
- Remove contaminated clothing.
- Wash skin exposures with soap and water for 1 minute. For eye exposures, flood eyes with water from eyewash station or sink.
- Obtain medical attention, if necessary.
- Report to EOHW by dialing the BBF Hotline at 919-684-8115 or 115 from a Duke phone.
- Complete the "Report a Work-Related Accident, Injury, or Illness" form [linked here]

**Training**
- Complete minimum safety training requirements for your job.
- Complete the online Bloodborne Pathogens Training (or BSL-2/BBP if working in a designated BSL-2 laboratory) at [https://sms.duhx.duke.edu/onlinetraining](https://sms.duhx.duke.edu/onlinetraining).
- All personnel shall read and fully adhere to this SOP.

**Questions**
Contact OESO - Biological Safety Division at 919-684-8822 or biosafety@duke.edu