Biological Safety

BIO Seminar
August 29th, 2018
CDC/NIH Guidelines: Levels

- **BSL1**
  - Agents not known to cause disease

- **BSL2**
  - Agents associated with human disease

- **BSL3**
  - Indigenous/exotic agents associated with human disease and with potential for aerosol transmission

- **BSL4**
  - Dangerous/exotic agents of life threatening nature
Biohazard

• ALL biological tissue or fluids
  – bone, tendon, cartilage, heart
  – Any liquid that looks like blood or body fluid should be treated as biohazard!
Personal Protective Equipment

- Gloves are required anytime you are handling chemicals, biological and/or radioactive materials.
- Eye protection must be used at ALL TIMES.
- Lab coats must be worn.
- Open toed shoes do not protect your feet and ARE NOT allowed in the laboratory. (NO FLIP FLOPS, SANDALS, CROCs, SHORTS/SHORT SKIRTS, OR TANK TOPS)
- Tie back long hair.
Cleanliness

• All equipment should be cleaned after use
  – EACH TIME, EVERY TIME
  – Work in Progress (WIP)
    • Name, Date, Phone Number

• LABEL ALL CONTAINERS

• Bleach solution to clean all tools and surface exposed to biological fluid
• NOTE: chemical waste must be disposed of in respective waste containers (ie – formalin, EDTA, Trizol etc.)
Autoclave

• Use clear autoclave bags only!
• MUST BE TRAINED!
• Record use on log sheet
• Turn off when finished using
More Waste

• Sharps Containers
  – Hypodermic needles, Scalpels, **Containers are found in EACH ROOM**
  – **DO NOT RECAP NEEDLES!!!**

• Red Biohazard Bags
  – **MUST** store in freezer in Room 207
Transportation

• DO NOT WEAR YOUR LABCOAT IN THE HALLS!!!

• Biological samples MUST be in closed containers WITHOUT wearing gloves
  – Remember, Hallways are CLEAN!
  – Containers are safe to handle without gloves – A secondary container may have to be used to keep primary container clean
Biological Spill

1. Assess area of spill
2. Put on appropriate PPE
3. Cover entire spill with paper towels or another appropriate absorbent material
4. Saturate paper towel with disinfectant
5. Allow to sit for 20-30 minutes
6. Remove paper towels and place into biohazard bag
7. Remove and contaminated PPE and place into biohazard bag
8. Add 200 ml of water to bag, seal, label, and autoclave
Chemical Spill
Injury and First Aid

• If you cut yourself
  – WASH YOUR HANDS with soap and water
  – Use First aid
  – Go to health services

• If you cannot stop the bleeding or cut is too large
  – CALL EMERGENCY
    • 911 from campus phone
    • 631-5555 from cell phone

• Marked First Aid kits can be found in each room

Report ALL injuries to Lab Manager