

Use of Human Cells & Human Tissues in Animals

Purpose:

To provide guidance for the use of human cells and human tissues in the laboratory and animal facility environment.

Guidance Information:

Human cells and tissues can carry bloodborne pathogens. While many commercial human cell lines are screened for pathogens, all human cell lines at UW-Madison are treated as potentially containing bloodborne pathogens (BBP) and handled with Universal Precautions

Universal Precautions: An approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids and tissues are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens regardless of their source or previous screening for pathogens.

Precautions:

1. Personal Protective Equipment (PPE) Required: Lab coat, gloves (standard nitrile or latex) and safety glasses. When working outside of containment, an N95 respirator* and goggles may be required. *Respirator use requires medical clearance and fit testing through Occupational Medicine.
2. Laboratory: BSL-2 is required for administration and handling of human cells and human tissues in animals. A BSC (biosafety cabinet) or full mucosal protection is required anytime there is a risk of aerosolization.
3. Animal housing and bedding/wastes:
 - a. Animals should be housed in microisolator or similar containment caging.
 - b. A biological safety cabinet (BSC) is needed when opening cages and handling animals.
 - c. ABSL2 signage is required to be posted on the housing and procedure room when this material is present.
 - d. Cage labels are required on each individual cage containing the biohazard symbol and "Agent, end date (if applicable) and disposal method". Cage labels are removed or crossed out when special handling time has ended. *Cage labels available at www.ehs.wisc.edu
 - e. Decontamination of animal waste, caging and any other contaminated equipment is required before disposal. Autoclaving or a suitable chemical disinfectant is used prior to disposal into standard waste streams. Caging must be either bagged into biohazard bags for transport to the autoclave or must remain sealed during transport and at all times prior to autoclaving. It is

recommended that cage racks be treated with disinfectant prior to removal from animal room.

References:

“Biosafety in Microbiological and Biomedical Laboratories”, Centers for Disease Control and Prevention, current edition. <https://www.cdc.gov/labs/bmbl/index.html>