

Use of Human Cells & Tissues in Animals

Purpose:

To provide guidance for the use of Human cells and 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. Universal precautions can be applied zoonosis transmission.

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 are worn. *Respirator use requires medical clearance and fit testing.
2. Laboratory: BSL-2 is required for administration and handling of human cells and tissues in animals. A BSC (biosafety cabinet) or full mucosal protection is required anytime there is danger 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. Signage is required on each individual cage containing the biohazard symbol and "Agent, end date and disposal method". Signs are removed when special handling time has ended. *Cage signage available at www.ehs.wisc.edu
 - d. 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.

<http://www.cdc.gov/biosafety/publications/bmbl5/>