

## Animal Research Protection Program Policies & Procedures

### *Requirements for Personnel Identification & Protective Clothing*

Version 1.0

Date Effective: July 1, 2013



Research Integrity Office

[IACUC@ohsu.edu](mailto:IACUC@ohsu.edu)

[WestCampusiacuc@ohsu.edu](mailto:WestCampusiacuc@ohsu.edu)

CWC office: 503.494.8408

WC office: 503.690.5289

503.629.4139

## BACKGROUND

Animals are sources of zoonotic diseases and are susceptible to some human disease as well, thus the use of Personal Protective Equipment (PPE) provides protection to personnel as well as the animals during routine animal handling and research procedures.

## SCOPE

This policy applies to all personnel (animal care personnel, researchers, facilities, vendors/contractors, and visitors) entering any animal areas. The minimum requirements for protective clothing for certain animal species relating to select zoonotic organisms are set forth below. This policy is not meant to address all the specific concerns that might be encountered in animal facilities, areas or labs, or to limit the protective clothing requirements of these sites.

## POLICY

Personnel working with laboratory animals must wear proper OHSU issued identification for increased security and PPE to reduce the risk of disease transmission and injury for themselves and the animals.

## PROCEDURES

- I. All persons entering the vivarium are required to have a visible OHSU Photo Identification badge per OHSU policy No. 07-09-001. [http://ozone.ohsu.edu/policy/pac/chapt\\_7/7-90-001.htm](http://ozone.ohsu.edu/policy/pac/chapt_7/7-90-001.htm). Access to West Campus animal facilities requires an Access/Training badge issued by the Research Integrity Office.
- II. Hand washing is an important adjunct to the use of exam gloves for prevention of the spread of infectious organisms or other contaminants to both personnel and animals. While use of exam gloves will greatly decrease the spread of contaminants from a person's hands, they will not completely eliminate this transfer due to micro-breaks in the glove materials. For effective hand washing, soap or alcohol-based hand rubs should be used.
- III. Additional requirements may be required, including (a) experiments that have special safety requirements such as the use of infectious disease organisms, hazardous chemicals or radiation sources, (b) work in areas where there might be exposure to contaminated airborne particulate materials or vapors, (c) work with certain species not addressed in this policy, or (d) for individuals with special health needs, such as pregnancy or immune deficiency. Personnel with questions regarding any research related safety concern should contact Environmental Health and Radiation Safety or the Department of Comparative Medicine.

- Personnel with specific health concerns should contact Employee Health.
- IV. The following pages provide tables of select zoonotic organisms and minimum requirements for PPE. PPE should not be worn in public areas or beyond the boundary of a hazardous agent work area or animal facility in order to reduce inadvertent exposure of other personnel to animal dander or pathogens.

**Table 1 – Select Zoonotic Diseases of Rodents and Rabbits**

Zoonosis	Agent	Species	Route of Transmission
Rat Bite Fever	<i>Streptobacillus moniliformis</i> , <i>Spirillum minus</i>	Rodents	Bites, Fecal-oral ( <i>S. moniliformis</i> ) Bites ( <i>S. minus</i> ) from feral rodents
Lymphocytic Choriomeningitis	LCM virus	Rodents	Aerosol, bites, direct contact, fecal-oral from feral rodents and feral rodent waste
Cheyletiellosis (mites)	<i>Cheyletiella parasitivorax</i>	Rabbit	Direct contact
Dermatophytosis (Ringworm)	<i>Trichophyton sp.</i> <i>Microsporum sp</i>	Rodent/Rabbit	Direct contact
Tapeworm	<i>Hymenolepis nana</i>	Rodents	Fecal-oral from feral rodents

**Table 2 - Protective Clothing Requirements for Personnel in Rodent and Rabbit Facilities**

ACTIVITY	REQUIREMENTS
Entry into conventional rodent holding room for brief visual inspection. (Does not pertain to <b>Barrier rooms, Facilities, or DCM-W</b> )	Lab coat over street clothes
Entry into conventional rodent holding rooms and contact with caging or accessory equipment. (Does not pertain to <b>Barrier rooms or Facilities</b> )	Scrubs or street clothes covered with lab coat or surgical/disposable gown; exam gloves
Direct contact with conventional Rodents-	Scrubs or street clothes covered with lab coat or surgical/disposable gown; exam gloves; face mask is recommended (request Biosafety Officer risk assessment for mask type)
Cage cleaning or change out (Does not pertain to Barrier rooms or Facilities)	Scrubs or street clothes covered with lab coat or surgical/disposable gown; exam gloves; face mask is recommended
Entry into rodent Barrier holding rooms or Facilities for Any Purpose-	Disposable gown, shoe covers, exam gloves, hair bonnet and face mask. Follow posted directions for additional requirements.
Entry into rodent biohazard or Facility for any purpose	Disposable gown, shoe covers, exam gloves, hair bonnet and face mask. Follow posted directions for additional requirements.
Entry into rodent quarantine holding room or Facility for any purpose by DCM Staff Only	Disposable gown, shoe covers, exam gloves, hair bonnet and face mask. Follow posted directions for

	additional requirements.
--	--------------------------

**Table 3 – Select Zoonotic Diseases of Carnivores**

Zoonosis	Agent	Species	Route of Transmission
Bite & scratch bacterial agents	<i>Capnocytophaga canimorsus</i> <i>Bartonella henselae</i> (Cat scratch Fever) <i>Pasturella multocida</i>	Dog, Cat Cat Dog, Cat	Direct contact Bite Scratch
Rabies	Rabies virus (Lyssavirus)	All	Wound, bite or contact with the saliva or brain of unvaccinated animal
Dermatomycoses (Ringworm)	<i>Microsporum sp.</i> <i>Trichophyton sp.</i>	Dog, Cat	Direct contact
Acariasis (mites)	<i>Sarcoptes Scabiei</i>	Dog Cat	Direct contact

**Table 4—Protective Clothing Requirements for Personnel in Carnivore Facilities**

ACTIVITY	REQUIREMENTS
Entry into animal runs or pens	Scrubs or street clothes covered with lab coat or surgical/disposable gown; or scrubs and dedicated shoes or shoe covers; face masks are recommended
Cleaning procedures for caging, runs or pens	Scrubs or street clothes covered with lab coat or surgical/disposable gown; or scrubs, dedicated shoes or shoe covers, and exam gloves; face masks are recommended
Direct Contact with Animals	Scrubs or street clothes covered with lab coat or surgical/disposable gown; or scrubs, shoe covers and exam gloves for clinical procedures; face masks are recommended.

**Table 5 – Select Zoonotic Diseases of Ungulates**

Zoonosis	Agent	Species	Route of Transmission
Q Fever	<i>Coxiella burnetti</i>	Sheep, Cattle, Goats	Aerosol Direct contact;
Contagious Ecthyma (ORF)	Pox virus	Sheep, Goats	Direct contact
Tuberculosis	<i>M. tuberculosis, avium or bovis</i>	Swine, Sheep, Goats	Aerosol or Direct contact
Campylobacteriosis (diarrhea)	<i>Campylobacter jejuni</i>	Swine, Sheep, Cattle	Fecal/oral
Dermatomycoses	<i>Trichophyton, or</i>	Cattle, Sheep, Goats,	Direct contact

(Ringworm)	<i>Microsporium</i> spp.	Swine	
------------	--------------------------	-------	--

**Table 6 – Protective Clothing Requirements for Personnel in Ungulate Facilities**

ACTIVITY	REQUIREMENTS
Entry into pens or runs. No pregnant sheep/goats/cattle in room.	Scrubs or street clothes covered with lab coat or surgical/disposable gown; or scrubs and dedicated shoes or shoe covers; face masks are recommended
Direct contact with animals. No pregnant sheep/goats/cattle in room	Scrubs or street clothes covered with lab coat or surgical/disposable gown; or scrubs and exam gloves are required. Face masks dedicated shoes or shoe covers are recommended.
Cleaning animal holding areas. No pregnant sheep/goats/cattle in room.	Scrubs, exam or other protective gloves and dedicated shoes or rubber work boots are required. Face masks are recommended.
Entering rooms or having contact with pregnant sheep/goats/cattle	In addition to the protection listed in the cleaning section above in this table, hair bonnets and face masks, dedicated shoes or shoe covers <b>are required</b> when working in rooms housing pregnant sheep, goats or cattle. Follow requirements posted on room door.

**Table 7 – Select Zoonotic Diseases of Fish & Frogs**

Zoonosis	Agent	Species	Route of Transmission
Mycobacteriosis	<i>Mycobacterium xenopi, fortuitum, marinum, chelonae</i>	Fish, frogs	Breaks in skin surface
Salmonellosis	<i>Salmonella</i> spp.	Frogs	Breaks in skin surface
Vibriosis	<i>Vibrio vulnificus</i>	Fish	Breaks in skin surface

**Table 8 – Protective Clothing Requirements for Personnel in Fish & Frog Facilities**

ACTIVITY	REQUIREMENTS
Direct handling of fish	Scrubs or street clothes covered with lab coat or surgical/disposable gown; recommended. Powder-free exam gloves recommended; hand sanitizing necessary if gloves are not worn
Direct handling of frogs	Scrubs or street clothes covered with lab coat or surgical/disposable gown; recommended. Powder-free exam gloves recommended; hand sanitizing necessary if gloves are not worn
Placing hands into the water for husbandry, feeding, manipulating, etc.	Scrubs or street clothes covered with lab coat or surgical/disposable gown; recommended. Powder-free exam gloves recommended; hand sanitizing necessary if gloves are not worn

**Table 9 – Select Zoonotic Diseases of Old and New World Non-Human Primates**

Zoonosis	Agent	Species	Route of Transmission
B Virus	Macacine herpes virus 1	Macaca sp.(Old)	Direct Contact, NHP, tissues, fluids, bites, scratches
HAV	Hepatitis A Virus	Papio sp. (Old) (Baboons)	Direct Contact
Tuberculosis	M. tuberculosis	All NHPs	Aerosol or Direct contact
Diarrheal	Campylobacter jejuni Salmonella	All NHPs	Fecal/oral
Herpes T	Herpes T	Marmosets (New)	Direct contact

**Table 10 – Protective Clothing Requirements for Personnel in Old and New World Non-Human Primate Facilities**

ACTIVITY	REQUIREMENTS
Entry into room, any contact with animal or soiled caging and cleaning activities— Central Campus Marmosets only-	Scrubs or street clothes covered with lab coat or surgical/disposable gown, exam gloves or other protective gloves, hair bonnets, face masks, shoe covers and safety glasses/goggles <b>are required.</b>
Entry into room, any contact with animal or soiled caging and cleaning activities—West Campus	Standard housing: Scrubs or street clothes under a back closing gown, gloves, eye protection, fiber mask, dedicated shoes or shoe covers. Hair bonnet required for surgical, Kroc building, quarantine, and containment suites. Kroc building and containment: double nitrile gloves required, Tyvek may be worn in place of a blue gown. ESPF and BSL <sub>3</sub> suites: Tyvek and double nitrile gloves required. BSL <sub>3</sub> suites only: either N95 mask with hair bonnet or PAPR respiratory hood required.
Entry into room, any contact with animal or soiled caging and cleaning activities—All Campuses	In addition to the protection listed above in this table, follow requirements posted on room door.

## DEFINITIONS

**Street clothes**—Clothing that is not provided or laundered by OHSU. Clothing must be clean for entry (no visible or easily shaken off dirt or debris) into animal areas.

**Barrier Facilities**—Facilities that are designed and constructed to exclude the introduction of adventitious infectious agents from areas where animals of a defined health status are housed and used. Barrier facilities may be a portion of a larger facility or a free-standing unit.

**Zoonosis**— Also called *zoonotic disease*, refers to diseases that can be passed from animals, whether wild or domesticated, to humans.

## **AUTHORITIES**

Guide for the Care and Use of Laboratory Animals, 8<sup>th</sup> ed. 2011  
Animal Welfare Act. 9 CFR (AWA)

## **REFERENCES**

Occupational Health and Safety in the Care and Use of Research Animals, 1997.  
Biosafety in Microbiological and Biomedical Laboratories, 5<sup>th</sup> ed., 2009.