

UNIVERSITY OF SOUTHERN MAINE
Office of Research Integrity & Outreach

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Procedure Title:	Occupational Health & Safety Program

1.0 Purpose: Each institution must establish and maintain an Occupational Health and Safety Program (OHSP) as an essential part of the overall program of animal care and use. This Standard Operating Procedures (SOP) is designed to inform research personnel of USM's Occupational Health and Safety Program requirements.

2.0 Responsibility: Operational and day-to-day responsibility for safety in the workplace resides with the laboratory or facility supervisor (e.g., principal investigator, facility director, or a staff veterinarian) and depends on safe work practices by all employees. It is the responsibility of all personnel who work in the animal facility, or who are in contact with animals or animal products, to follow the procedures established in this document.

3.0 Animal Contact risk assessment for all research personnel at USM:

3.1 Risk Group A: Those who directly handle animals.

3.1.1 Before gaining access to an area containing animals for an extended period of time, beginning work on a field study, arriving as volunteer to work with animals, or handling vertebrate animals or their tissues, all research personnel must receive and review the information handout for Risk Group A.

3.1.1.1 It is the responsibility of the PI to distribute copies of the Risk Group A informational handout to all applicable research staff who directly handle animals or animal tissues.

3.1.2 All research personnel who wish to work directly with animals or animal tissue are required to complete an initial Medical Health/History Questionnaire (MHHQ) for review prior to starting any work with animals. All research personnel must submit an updated MHHQ annually every year thereafter in which they continue to have direct contact with the animals or animal tissues.

3.1.2.1 The research personnel will forward the completed Initial MHHQ to the Office of Research Integrity and Outreach

(ORIO) staff. This should happen by hand delivery or by mail to the current ORIO mailing address. It should NOT be emailed.

- 3.1.2.2 The ORIO staff will confidentially forward the MHHQ to a trained health professional (THP) for review.
- 3.1.2.3 The THP will notify the ORIO staff of any additional questions in reference to the MHHQ.
- 3.1.2.4 The THP will notify ORIO of his/her the review determination and any foreseeable risk to the research personnel.
- 3.1.2.5 The ORIO staff will inform the research personnel of approval/denial of the research conduct based on the review of the MHHQ.
- 3.1.2.6 The ORIO staff may bring the concerns of the THP to the IACUC at a special or convened meeting for vote on whether to approve/deny research personnel participation in the research study.

- 3.1.3 All research personnel must complete a basic safety training program provided by Safety Management, or its equivalent, prior to entry an animal facility. All research personnel must forward proof of completion of the basic safety training program to the ORIO.
- 3.1.4 All research personnel must complete a basic safety training program annually for the duration of the time they work with animals and shall forward proof of completion of the basic safety training program to the ORIO.

3.2 Risk Group B: Those who come into indirect contact with animals or the animal facility.

- 3.2.1 Indirect contact is defined as being within close proximity to animals used in research or teaching, or within close proximity to the location where animals are housed for such activities. Examples include (but are not limited to) working in a lab where animals or animal tissues are present, accessing the hallway adjacent to an area which houses animals or being present on a field study project but with no direct animal contact.
- 3.2.2 Before beginning the activity in which the research personnel will indirectly be exposed to animals, they must receive and review the Risk Group B information handout.
 - 3.2.2.1 It is the responsibility of the Principal Investigator to distribute copies of the Risk Group B informational handout to all research personnel who will indirectly be exposed to animals or their tissues.

- 3.2.3 It is the responsibility of individual research personnel to notify the ORIO staff if they have any known animal allergies, or if an injury or allergy occurs while using or in close proximity to animals.

4.0 Animal Housing Facility Known Hazards: Facilities, equipment, and procedures should be designed, selected, and developed to reduce the possibility of physical injury or health risk to personnel. All research personnel who require entry to an Animal Housing Facility shall have orientation training that will include the hazards associated with working in such an environment.

4.1 Biological:

4.1.1 Zoonotic diseases

4.1.1.1 A list of zoonotic diseases will be posted on each animal room door.

4.1.1.2 Animal screening will occur at the vendor level before the animals will be allowed into the area.

4.2 Chemical: All chemicals shall be labeled appropriately and Material Safety Data Sheets (MSDS) for all chemicals will be placed in an accessible area of the animal housing facility. Such chemicals include but are not limited to:

4.2.1 Bleach

4.2.2 Anesthetic gases

4.2.3 Disinfectants

4.2.4 Cleaners/Detergents

4.2.5 Tissue fixatives

4.2.6 Pesticides & fungicides

4.2.7 Lab chemicals involved in individual projects

4.2.7.1 Material Safety Data Sheets (MSDS) will be provided to the ORIO staff and committees by the Principal Investigator when requested.

4.3 Physical:

4.3.1 Machinery (autoclave, cage washer)

4.3.2 Animal bites or scratches

4.3.3 Sharps (needles, scalpels)

4.3.4 Lighting (UV, low light levels)

4.3.5 Gas cylinders

4.3.6 Electricity

4.3.7 Noise (resulting from machinery, loud animals)

4.3.8 Radiation

4.3.9 Ergonomics (lifting, loading)

4.3.10 Animal allergens

4.4 Protocol related:

- 4.4.1** Experimental animals should be housed so that possibly contaminated food and bedding, feces, and urine can be handled in a controlled manner.
- 4.4.2** Infectious agents
 - 4.4.2.1** The investigator shall provide the following information to the ORIO staff who will share with the committees:
 - 4.4.2.1.1** Virulence, communicability, routes of exposure, shedding patterns, prevalence, and availability of prophylaxis and therapy.
 - 4.4.2.2** Before being used, the agent must be approved by IACUC and the Biosafety Committee (IBC) and be assigned an Animal Biosafety Level (ABL).
 - 4.4.2.3** Requirements and ABL assigned to a project will be posted and followed accordingly.
 - 4.4.2.4** The post will list the agent, the ABL assigned, the necessary precautions, and the emergency contact personnel.
 - 4.4.2.5** Entry into these rooms will be restricted to essential personnel only.

5.0 Orientation

5.1 Pre-placement

- 5.1.1** Vaccination is recommended if research is to be conducted on infectious diseases for which effective vaccines are available.
- 5.1.2** Research personnel must have a current Tetanus immunization.
 - 5.1.2.1** Documentation of immunization should be provided to the ORIO and appropriate committee: IACUC/IBC or both if research is being conducted that requires both committee approvals.
 - 5.1.2.2** Tetanus vaccination is required to be updated every 10 years.
- 5.1.3** Medical history for those with repeated and substantial direct contact with animals (former and current allergies, asthma, etc.)
 - 5.1.3.1** Medical history is obtained through the use of the MHHQ.
- 5.1.4** All research personnel will receive a corresponding handout outlining the animal-related risks associated with their job depending on their assigned risk group.

5.2 During employment and research

- 5.2.1** Monitoring of research personnel's physical health

5.2.1.1 For those working directly with the animals, monitoring of research personnel's physical health will be assessed by reviewing the annual MHHQ.

5.3 Education and Training

5.3.1 All research personnel must complete the appropriate Collaborative Institutional Training Initiative (CITI) IACUC (and IBC if required) modules prior to submitting a protocol to the ORIO.

5.3.2 All research personnel training prior to entering an animal facility shall include but is not limited to the following:

5.3.2.1 Identification and avoidance of potential hazards, incident procedure, and personal protective equipment.

5.3.1.2 Lab Animal Research Training and training specific to the type of animal being used.

5.3.2.2 Biomedical training

5.3.3 The Principal Investigator will provide an informational handout to all research personnel who will work within the animal facility that specifies the anticipated risks associated with their direct or indirect contact with animals. This document also includes the contact information for the appropriate offices at USM.

5.3.3.1 Research personnel are expected to read this informational handout thoroughly and to contact ORIO staff if they have any pre-existing medical conditions.

5.3.4 Appropriate job descriptions or classifications will be assigned to individual positions.

6.0 Injury reporting

6.1 All injuries must be reported to Risk Management at:
<https://gojira.its.maine.edu/jira/servicedesk/customer/portal/25/group/140>

6.2 In an emergency situation, emergency services are to be called immediately by dialing 911.

6.3 Injuries of a non-emergency nature can be treated:

6.3.1 On premises via first aid, or

6.3.2 At the current University of Maine System (UMS) approved facilities (which can be found by contacting the UMS Risk Management Office) if the injury is to a USM employee (includes student-workers), or

6.3.3 At the USM Student Health Services office or by primary care physician if the injury is to a student.

6.4 If any employee or student is injured, a report must be made to the injured party's supervisor immediately (within 24 hours) and the following forms must be completed:

6.4.1 Risk Management Injury Report

6.4.1.1 A copy of the original should be given to the ORIO.

6.5 Emergency Equipment on premises:

6.5.1 First Aid Kit, including burn treatment.

6.5.2 Fire extinguisher

6.5.3 Emergency shower

6.5.4 Eye Wash Station

7.0 Monitoring of injuries

7.1 Listing of all injuries kept on file within the Risk Management Office.

7.2 Injuries and incidents will be reported to IACUC or IBC

8.0 References

8.1 CFR 1984 a,b,c; DHHS 2009; PHS 2002

8.2 Guide for the Care and Use of Laboratory Animals (GUIDE), Occupational Health and Safety of Program (OHSP)

8.3 National Institutes for Health Office of Laboratory Animal Welfare, Program of Animal Care and Use

8.4 Informational Handout for Individuals with Direct Animal Contact (Risk Group A)

8.5 Informational Handout for Individuals with Direct Animal Contact (Risk Group B)

8.6 University of Maine System Workers Compensation Claims Procedures:
<https://mycampus.maine.edu/documents/10217/11189311/Workers+Compensation+Claims+Procedures/c402f13e-9868-7f6c-01de-335f5240d70f>

8.7 Risk Management Injury Reporting:
<https://gojira.its.maine.edu/jira/servicedesk/customer/portal/25/group/140>

8.8 The National Institute for Occupational Safety and Health (NIOSH 1997a,b)