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## 1.0 PURPOSE


- 1.1 The DHMRI and our employees are committed to conducting research in a safe, sustainable and ethical manner. This document provides information and procedures necessary for an effective Occupational Health Program.

## 2.0 SCOPE

- 2.1 This policy is applicable to all animal research projects conducted at DHMRI or at our direction.
- 2.2 This policy is applicable to all DHMRI personnel, contractors and tenants.

## 3.0 RESPONSIBILITIES

- 3.1 Chief Operating Officer
- 3.1.1 Provide adequate resources to maintain to maintain the Occupational health program.
- 3.2 Director, Environmental Health and Safety
- 3.2.1 Maintain this Document
- 3.2.2 Acts as Occupational Health Program Coordinator.
- 3.2.3 Provide latest copy of Visitor and Basic Health History forms
- 3.3 Principal Investigators
- 3.3.1 Ensure all members of their research team (who enter the CLAS) complete **FM-0026, Basic Health History Form** and are cleared in writing prior to entering the CLAS facility
- 3.3.2 Ensure all members of their research team are enrolled in the Occupational Health Program and complete **FM-0101 Occupational Health Program Acknowledgement**
- 3.3.3 Ensure that their visitors complete **FM-0100 Visitor Form** and are cleared in writing prior to entering the CLAS facility
- 3.3.4 Maintain TB screening as required
- 3.3.5 Maintain required immunizations.
- 3.4 Animal Users
- 3.4.1 Ensure that they have completed the **FM-0026, Basic Health History Form** and are cleared in writing prior to entering the CLAS facility.
- 3.4.2 Ensure that they are enrolled in the Occupational Health Program and have completed **FM-0101 Occupational Health Program Acknowledgement.**

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3.4.3 Ensure that their visitors complete **FM-0100 Visitor Form** and are cleared in writing prior to entering the CLAS facility.

3.4.4 Maintain TB screening as required

3.4.5 Maintain required immunizations.

### 3.5 Visitors

3.5.1 Complete **FM-0100 Visitor Form** and be cleared by the Director, EHS prior to entering the CLAS facility.

### 3.6 NCRC Security

3.6.1 Provide card access to CLAS facility.

## 4.0 PROCEDURE

### 4.1 Overview

4.1.1 The Occupational Health Program is administered by Carolinas Healthcare System (CHS). The Director, EHS serves as the DHMRI Occupational Health Program Coordinator who works as a liaison between DHMRI and the Occupational Health provider.

4.1.2 The program consists of education, including information on zoonotic diseases, baseline and periodic medical evaluations, and provisions for treating illness or injury. It is designed to protect both personnel and laboratory animals.

4.1.3 The principal concern is to protect personnel from and monitor exposure to hazards emanating from the animals themselves (i.e. infectious agents, bites and allergies) as well as exposure to secondary hazards such as radiation and toxic chemicals. The specific elements of the program vary depending on the nature and extent of an animal user's/visitor's exposure to animals.

### 4.2 Program Elements


4.2.1 Occupational Health Program elements include:

4.2.1.1 Basic Health History Evaluation and Required Immunizations

4.2.1.2 Education

4.2.1.3 Treatment of injuries and illnesses related to laboratory animal exposure

4.2.2 **Basic Health History Evaluation and Required Immunizations:** Animal Users and Animal Care Staff must be evaluated prior to having animal contact. During the basic health history evaluation, all employees are required to complete or maintain:

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4.2.2.1 **FM-0026 Basic Health History Form**

4.2.2.2 Tuberculosis testing (additional information concerning TB testing in SOP-0250, TB Testing Policy).

4.2.2.3 Current tetanus vaccination (within last ten years) and

4.2.2.4 Measles/mumps/rubella vaccinations. (One time)

4.2.2.5 Additional components of the health evaluation are based on functional requirements of the position, the type of animal(s) contacted, and the individual's prior medical history. Specific elements of the program, including specific tests performed, depend upon the species of animals utilized as well as the nature of the potential exposure and the procedures performed.

4.2.3 **Education**

4.2.3.1 DHMRI provides information on zoonotic diseases and injuries as available and upon request (Please reference **Appendix 7.1**). Other materials on zoonotic diseases respective to DHMRI animals are distributed to employees during the preplacement health evaluation and/or as appropriate. **FM-0101 Occupational Health Program Acknowledgement** must be completed to demonstrate receipt of the Occupational Health Program.

4.2.4 **Treatment of injuries and illnesses related to laboratory animal exposure will be covered in section 4.6 of this document.**


4.3 Eligibility

4.3.1 Animal Users and Animal Care Staff are eligible for inclusion in this program if they have:

4.3.1.1 Any direct contact (touch or are routinely within 10 feet) with vertebrate animals and/or their tissues, excrement, or body fluids.

4.3.1.2 Any potential aerosolized exposure to Tuberculosis through exposure to nonhuman primates.

4.3.2 Visitors are enrolled in this program by completing **FM-0100 Visitor Form** which determines their level of animal contact and providing a current (within last 12 months) negative TB Skin Test. Criteria for inclusion as a visitor include:

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4.3.2.1 A Visitor meeting the following criteria completes **FM-0100 VISITOR FORM**

4.3.2.1.1 Viewing NHPs and rodents at a distance greater than 10 ft.

4.3.2.1.2 Viewing NHP and rodent tissue only at a distance greater than 10 ft.

4.3.2.1.3 Those determined to be visitors must be escorted at all times by their DHMRI CLAS sponsor.

4.3.2.2 A Visitor meeting the following criteria completes **FM-0026 Basic Health History Form**

4.3.2.2.1 Viewing NHPs and rodents directly or within 10 ft.

4.3.2.2.2 Viewing NHP and rodent tissue only directly or within 10 ft.

4.4 Enrollment

4.4.1 All eligible contract, temporary, part-time and full time employees of DHMRI who contact research animals or certain animal products used in research are enrolled in the Occupational Health Program. Employees and their supervisors are required to designate whether their duties make them eligible for enrollment in the Occupational Health Program.

4.4.2 All personnel listed on an IACUC protocol are required to enroll before the protocol will be approved.


4.5 Procedures

4.5.1 Any individual wanting to participate in any animal protocol must first be enrolled in the Occupational Health Program via the following steps:

4.5.1.1 Complete EHS training including Blood Borne Pathogens or provide evidence of completion to the Occupational Health Coordinator

4.5.1.2 Complete the Basic Health History Form (BHHF) available via the NCRC portal (please reference **FM-0026 BASIC HEALTH HISTORY FORM**).

4.5.1.3 **PROVIDE** proof of a current negative TB screening or obtain through Cabarrus Urgent Care of Carolina Healthcare System (CHS). (Additional information concerning TB testing in SOP-0250, TB Testing Policy).

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4.5.1.4 Read Appendix 7.1 of this document and acknowledge in writing their receipt of this document by completing **FM-101 Occupational Health Program Acknowledgement**.

4.5.1.5 Upon completion of 4.6.1.1 – 4.6.1.4 an occupational health physician will review on a baseline basis to determine if Clearance (reference **FM-0026 BASIC HEALTH HISTORY FORM**) for CLAS entry is permitted.

4.5.1.6 The Occupational Health Coordinator will inform the individual, CLAS Attending Veterinarian, CLAS Program Manager and IACUC Administrator that the occupational health requirements have been met. The individual can then be admitted to the CLAS facility.

4.5.2 Visitors are enrolled by completing the CLAS Occupational Health Program Visitor Form, **Appendix 7.1 and providing a current negative tb skin test** (additional information concerning TB testing in SOP-0250, TB Testing Policy). The Occupational Health Coordinator will inform their sponsor that they are cleared for entry.

#### 4.6 Evaluation and Treatment of Injuries and Illnesses


4.6.1 In accordance with SOP-0247, Injury and Illness Reporting and Recordkeeping, animal related injuries are reported to and treated by Carolinas Healthcare System (CHS), Cabarrus Urgent Care. When Cabarrus Urgent Care is closed, the Carolina Medical Center – Northeast Emergency Department treats any work-related accidents and injuries. Employees are informed of appropriate procedures for reporting injuries and illnesses during Employee Orientation and again by their supervisors in the workplace as the need occurs.

4.6.2 All immunizations are administered by Carolinas Healthcare System (CHS), Cabarrus Urgent Care, or an equivalent provider. Non-DHMRI CLAS users are responsible for ensuring that their immunization are up-to-date. Acceptable evidence of immunization may include completing **FM-0026 Basic Health History** or submitting an Immunization Record form their health care provider.

4.6.3 All documentation regarding the healthcare management component of the Occupational health program is maintained in the individual employee’s healthcare record at Carolinas Healthcare System (CHS), Cabarrus Urgent Care.

## 5.0 REFERENCES AND RELATED DOCUMENTS

5.1 FM-0026, Basic Health History Form

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- 5.2 FM-0100, Visitor Form
- 5.3 FM-0101 Occupational Health Program Acknowledgement
- 5.4 SOP-0136 Response **Following Suspect Exposure to Cercopithecine Herpesvirus-1**
- 5.5 SOP-0207, Biosafety Program
- 5.6 SOP-0247, Injury and Illness Reporting and Recordkeeping
- 5.7 SOP-0250, TB Testing Policy
- 5.8 SOP-0263, Blood Borne Pathogens Exposure Control Plan

## 6.0 DEFINITIONS


Term	Description
AAALAC	Association for Assessment and Accreditation of Laboratory Animal Care.
ANIMAL CARE STAFF	Persons employed to provide animal husbandry for research animals. This call is limited to DHMRI contracted staff.
ANIMAL USERS	Persons using animals in research
CDC	Centers for Disease Control
CLAS	Center for Laboratory Animal Science
IACUC	Institutional Animal Care and Use Committee
OSHA	Occupational Health and Safety Administration
VISITOR	Persons visiting the CLAS facility for purposes of business including sales and service, campus tours, etc.

## 7.0 APPENDICES

### 7.1 Occupational Health and Zoonotic Concerns for Personnel Caring for or using Laboratory Animals and/or Animal Tissues/Fluids

#### 7.1.1 Introduction:

The Occupational Health Program for Personnel Caring for or using Laboratory Animals and/or Animal tissues/fluids (**Program**) consists of education including information on diseases transmitted between human beings and animals, Baseline medical evaluations, and provisions for treating illness or injury. The Program is designed to protect both personnel and laboratory animals. The principal concerns are protecting personnel from and monitoring exposure to hazards associated with laboratory animals (i.e., infectious diseases, traumatic wounds including bites, scratches, punctures and allergies). The specific elements of the Program vary depending on the nature and extent of an employee's exposure to animals.

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This document is intended to give employees an overview of the Program, as well as some information hazards associated with laboratory animals and their tissues/fluids. Employees/visitors wanting specific and/or additional information about risks present in their work environment (and how to protect themselves from those risks) should contact their immediate supervisor. Employees/visitors may also visit the Centers for Disease Control website (<http://www.cdc.gov/onehealth/zoonotic-diseases.html>) for further details.

## 7.1.2 General Information and Procedures

### 7.1.2.1 Baseline Assessments

Due to the potentially serious nature of some diseases carried or transmitted by laboratory animals employees working with animals must complete a **Basic Health History Form (BHHF)** and enroll in the Occupational Health Program. As described below, this involves surveillance for tuberculosis, tetanus, measles, mumps, rubella and allergies.


### 7.1.2.2 Tuberculosis Surveillance

All employees/visitors having animal contact or working in areas where they are housed must have documentation of a negative mantoux tuberculin skin test (TST) or a normal chest x-ray as directed by the physician administering the Occupational Health Program. The TST is administered in accordance with CDC recommendations. For those employees with in the presence of Non- Human Primates, the test needs to be repeated in six (6) month intervals, for those employees/visitors in the presence of rodents, the test needs to be repeated in twelve (12) month intervals. For those employees/visitors receiving a positive TB reading will be referred to the Occupational Health Physician. **SOP-0250 TB Testing Policy for CLAS facility provides additional guidance for TB testing.**

## 7.1.3 Surveillance for Tetanus/Tetanus Immunization

Tetanus immunization has been and will continue to be required for all employees who cannot confirm immunization within the last ten (10) years. Tetanus immunization data will be captured during completion of the **FM-0026, Basic Health History Form (BHHF)**. Those persons who are out of date must provide a health record to verify they have updated their tetanus immunization.

## 7.1.4 Measles, Mumps, Rubella

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One time immunization for Measles, Mumps, and Rubella (MMR) is required for entry into the CLAS. Measles, Mumps, and Rubella (MMR) immunization data will be captured on the **FM-0026, Basic Health History Form (BHHF)**.

#### 7.1.5 Allergies

Dander, serum, urine and saliva are some of the materials that can induce an allergic reaction in an animal handler who is sensitized to these animal products. Allergic responses generally are seen immediately after handling the animal, but may not appear for several hours after exposure. Sneezing, tearing, and red swollen eyes are typical responses; however a rash, wheal, hives, or other type of skin inflammation may also be seen. Although there is little data regarding effective means for preventing allergies in animal handlers, it is thought that the use of Personal Protective Equipment (PPE) reduces exposure to animal allergens and thus PPE is recommended in all animal areas. Employees/visitors with known allergies to animals should notify their supervisor and the DHMRI Occupational Health Program Administrator.

#### 7.1.6 Pregnancy

It is possible that some infectious agents carried by animals could be transmitted to the fetus. Of particular concern are agents carried by nonhuman primates (LCMV from mice is also important). Therefore, it is recommended that pregnant women advise their supervisors of their condition and avoid handling these species while pregnant.


#### 7.1.7 Non-infectious Job related injuries

Employees/visitors with job-related injuries or illnesses will be examined and managed by the staff of the Occupational Medicine Service of Carolinas Healthcare System (CHS) Monday – Thursday 8am – 5 pm, Friday 8am – 4 pm. If injury or illness occurs outside these designated hours, the Emergency Room of Carolinas Medical Center (CMC) \_ northeast shall be used. Notification of the injured/ill employee/visitor immediate supervisor shall take place as soon as possible, so that appropriate steps may lead to management notification.

#### 7.1.8 INFORMATION REGARDING ZOO NOTIC DISEASES

A zoonosis is a disease that may be transmitted from animals to humans. Exposure to some of these diseases, such as diarrheal and parasitic diseases, could come from several different animal species. Some of these diseases are more specific to certain types of animals, such as toxoplasmosis in cats. An attempt has been made to highlight certain zoonotic diseases to which an employee/visitor could possibly exposed in the course of employment or a visit. Persons with



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known immunocompromised immune function may be more susceptible to certain zoonotic diseases and should notify their supervisor or the DHMRI Occupational Health program Administrator. Also, individuals with certain diseases (such as tuberculosis or measles) may cause health consequences in animals and thus should make their supervisors aware of potential disease that may affect the animals.


#### 7.1.8.1 Infectious Diseases

7.1.8.1.1 Methicillin resistant Staphylococcus aureas and S. intermedius (MRSA and MRSI) bacteria are an emerging concern in zoonotic diseases. Both MRSA and MRSI have been isolated from animals and poses risk for humans.

#### 7.1.8.2 Nonhuman Primates

7.1.8.2.1 **Tuberculosis (TB):** Tb is not usually a naturally occurring disease of monkeys. If however, the monkeys contract the disease form humans, they may transmit the disease to other monkeys or possibly to humans. While the transmission of TB from monkeys to humans to monkeys is rare, the transmission of TB from humans to monkeys is well documented and poses a significant threat to any monkey colony. The disease is spread by inhalation or ingestion, which is minimized by wearing a mask and proper PPE. All David H. Murdock Research Institute (DHMRI) - housed monkeys are evaluated at least every year, or more frequently, such as during initial acquisition, to detect monkeys with signs of TB. To further decrease the potential spread of this disease, monkey with positive signs of TB, or those who test positive for TB are removed from the colony.

7.1.8.2.2 **Herpes B-Virus:** Herpes B-virus (Cercopithecine Herpesvirus I) is carried by nonhuman primates of the genus *Macaca*. This genus includes rhesus, cynomolgus, bonnet, pigtail, and stumptail monkeys. Herpes B-virus typically causes mild to no disease in these species, but can cause fatal encephalitis in humans. The risk of transmission to humans is very low with proper use of protection clothing (including eye protection) and with proper animal restraint. However, wounds by these species or from objects contaminated with blood, body fluids or tissues from these species require **immediate medical attention.**

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as do splashes of macaque body fluids into the eyes, nose or mouth or an open wound.

In 2003, the CDC “B-virus Working Group”, published updated recommendations for the prevention of and therapy for exposure to Herpes B-virus (*Clinical Infectious Diseases* 2002; 35:1191-209). As described, the first few minutes are the most critical for managing an injury involving possible exposure to Herpes B-virus. Thorough cleansing within 2 -3 minutes following the injury/exposure is probably the only means of actually preventing infection, consequently, “Scratch Kits” are located in areas where nonhuman primates are housed and studied. These kits contain the necessary supplies with instructions for attending to a macaque exposure. A wound should be scrubbed immediately with a concentrated soap (for example< Betadine scrub or chlohexidine scrub) for at least 15 minutes. After the 15 minutes period, the area should be rinsed with water to remove a traces of detergent. If eyes, nose and/or mouth have been exposed, the site should be irrigated for a least 15 minutes with large amount of sterile water, sterile saline solution, or rapidly flowing tap water.

The employee/visitors must report the injury to his/her supervisor or Attending Veterinarian **immediately** after wound care is complete. If the injury is a penetrating wound (skin broken) the employee will be sent to the Occupational Health provider as described under Occupational injuries/illnesses above. Appropriate medical intervention will be determined and carried out by the Attending Medical Professionals. The animal involved will be identified, and samples will be obtained from the animal for testing at the National B Virus Center.

Signs and symptoms associated with B virus infection in humans include:


- Early Manifestations (inconsistently present):
  - Vesicular eruptions (small blisters) or ulcerations near the exposure site

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- Severe pain or itching at the exposure site
- Regional lymphadenopathy (swollen lymph glands)
- Intermediate Manifestations (inconsistently present):
  - Fever and chills
  - Numbness or paresthesia (mild tingling, numbness, or paralysis) at or near the exposure site
  - Conjunctivitis
  - Persistent hiccups
- Late Manifestations (avoidable with early therapy):
  - Sinusitis
  - Neck Stiffness
  - Headache > 24 hours
  - Nausea and vomiting
  - Altered mental status
  - Other signs compatible with central nervous system impairment or viral encephalitis, including urinary retention , hemiplegia, progressive ascending paralysis, or coma

If any of these signs or symptoms is observed, the employee/visitor should notify their supervisor or attending veterinarian immediately and report to Carolinas Medical Center – Northeast, Emergency Department for evaluation.

7.1.8.2.3 Job-Related Injuries and Illnesses: For monkey bites, and associated injuries(including scratches or wounds from needles, cages, or equipment that might be contaminated with monkey secretions) from macaque species, the precautions listed above for Herpes B Virus exposure should be started **immediately**. Following the recommended scrubbing-rinsing-swabbing-scrubbing-rinsing procedure for injuries for macaque or standard would care for injuries from other animals, the employee/visitor must report the injury to his/her supervisor or the attending veterinarian immediately. In all cases, the employee/visitor will immediately be taken to

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Carolinas Medical Center – Northeast, Emergency Department per SOP-0136 Response **Following Suspect Exposure to Cercopithecine Herpesvirus-1**

**7.1.8.2.4 Diarrheal and Parasitic Diseases:** Since nonhuman primates are similar to people, it is not surprising that they share many of the same diarrheal and parasitic diseases. The risk of contracting diarrheal diseases (Shigellosis, Yersiniosis, Salmonellosis, Campylobacteriosis) is decreased considerably if protective clothing is worn and proper hygiene used (i.e., no eating, drinking smoking or applying cosmetics, including lipstick, in animal housing areas and thorough hand-washing after working with monkeys). Parasitic organisms (Strongyloides, Entamoeba, Giardia, and Balantidium) can also be passed from nonhuman primates to humans. Again proper clothing and hygiene will greatly decrease the risk.

**NOTE:** If employee/visitor contracts diarrhea and has recently worked with nonhuman primates or nonhuman primate secretions or tissues, the employee/visitor should notify his/her supervisor or the Attending Veterinarian. If warranted (diarrhea accompanied by fever or diarrhea of greater than 2-3 duration) the employee/ visitor should be sent to Carolinas Medical Center – Northeast, Emergency Department for evaluation.


**7.1.8.3 Miscellaneous Viral Diseases:** Two viruses (Ebola virus and Marburg disease) know to infect monkeys can cause serious disease in people. To date, there have been no cases of either of these diseases among the Vivarium at the David H. Murdock Research Institute, and their incidence elsewhere is extremely rare. A virus related to human Ebola virus was identified in nonhuman primates, but the virus does not appear to cause disease in humans. Nonetheless, the use of PPE, proper methods of animal restraint, and good personal hygiene will reduce to risk of exposure to these viruses.

**7.1.8.4 Simian Immunodeficiency Virus (SIV) and Simian Foamy species Virus (SFV):** These are retroviral agents that may be found in the blood of many nonhuman primate species. There have been reports of antibody conversion to both viruses (indicating infection) in a small number of people working with nonhuman primates. The potential for development of disease in

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people is unknown. These viruses should be considered potential zoonosis until proven otherwise. Standard precautions for preventing exposure to blood borne pathogens should be observed.

- 7.1.8.5 **Simian Type D Retrovirus (SRV):** This virus causes immunodeficiency disease in nonhuman primates (rhesus, cynomolgus, bonnet, pigtail and stumptail monkeys). There is one report of SRV infection in human AIDS patient. The contribution of SRV to disease syndrome in the HIV-infected person is undetermined. It is not known if SRV alone is capable of producing disease in healthy humans. Until more is known, SRV, like SIV and SFV, should be considered a potential zoonosis, and standard precautions should be taken to prevent exposure to blood borne pathogens.
- 7.1.8.6 **Skin Diseases:** A skin disease known as ringworm can occur among people in all walks of life. Ringworm can be transmitted from animals to humans. The risk of getting this disease is decreased with the use of proper clothing and good hygiene (washing thoroughly after handling animals).
- 7.1.8.7 **Rabies:** Rabies can affect any warm-blooded animal. Although unlikely, it is always possible that a nonhuman primate may become infected before being imported or through contact with wild animals. Rabies virus is carried in saliva and can be transmitted through bites and scratches. The risk of transmission is decreased by wearing appropriate protective clothing and utilizing proper techniques for animal restraint.
- 7.1.8.8 **Hepatitis Viruses:** Hepatitis A virus, Hepatitis B virus, and Hepatitis E virus are three viruses that cause infection of the liver (hepatitis) in humans. While the risk of contracting these diseases from nonhuman primates is low (indeed, chances are much greater you will contract them from other humans), precautions should be taken. Hepatitis A and E are transmitted orally; protective clothing and good sanitation practices will significantly reduce the risk of contracting the virus. Hepatitis B is transmitted via blood; careful handling of blood, needles, and syringes is important in preventing transmission. Employees are encouraged to evaluate their infection risk level with their primary care provider. A vaccine is available for Hepatitis B. However, there is no vaccine for Hepatitis E virus.
- 7.1.8.9 **Meloidosis:** This disease is caused by the agent *Burkholdia pseudomallei* and occurs in humans and animals in tropical and subtropical regions of the world. The disease has been found in a

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small number of macaques imported into the United States for research. Infection is generally acquired through contact of abraded skin with contaminated soil or water. Transmission of disease from animal to animal, animal to human, or human to animal is said not to occur. However, the proper use personal protective equipment (PPE) when working with infected nonhuman primates is recommended.


### 7.1.9 Rodents

Most of the rodent colonies maintained by commercial suppliers and used in laboratories today are closely monitored for infectious diseases, thus minimizing the likelihood that laboratory workers will be exposed to infectious animals. All persons coming into contact with these species should be immunized against tetanus. Proper handling and restraint procedures will minimize the risk of animal bites and transmission of disease.

7.1.9.1 **Lymphocytic Choriomeningitis Virus:** It is a rodent virus found in the nervous tissues of infected animals. Hamsters and wild rodents are the major animal reservoirs of the virus, which is shed in urine and saliva. In humans, the virus causes an acute flu-like illness and occasionally death. While most commercial vendors monitor their animals for the presence of this virus, care must be taken when handling wild rodents and rodents from sources that do not perform routine surveillance. Potentially infected materials, such as blood, bedding and transplantable tissues, should also be handled with care. Additionally there may be a pregnancy risk.

7.1.9.2 **Allergies:** Rodents are commonly identified as a cause of allergies in humans. Dander, serum, urine and saliva are just some of the materials that can induce an allergic reaction in an animal handler who is sensitized to animal products. Allergic responses generally are seen immediately after handling an animal, but may not appear for several hours after exposure. Sneezing, tearing and red, swollen eyes are typical. Although there are few data regarding effective means of preventing allergies in animal handlers, it is thought that use of personal protective equipment (PPE) reduces exposure to animal allergens. Personnel with known or suspected allergies to animals should report their condition to their supervisor, attending veterinarian, and the occupational health physician.

7.1.9.3 **Other infections:** Wild rodents are a common source of zoonotic infections in humans. These animals may be sources of leptospirosis, bubonic plague, salmonellosis, and other bacterial

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and viral disease, including Hantavirus Pulmonary Syndrome. Unless serologic surveillance of the animals indicates otherwise, special quarantine precautions should be used whenever handling or caring for wild rodents or any animals of unknown health status.

#### 7.1.10 Working with Tissues from Animals:

Whereas caution should be exercised when working with all animal tissues, certain high risk species such as nonhuman primates, should be handled in a manner consistent with universal precautions described in OSHA regulations (29 CFR 1910.1030 – Blood borne pathogens.) for working with blood and bodily fluids. For further details please see:

[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10051](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051)

As described above, there are unique procedures and safety concerns surrounding the use of nonhuman primate tissues, primarily because of concerns regarding the zoonotic Cercopithecine Herpesvirus I (Herpes B). Special care should be used when handling fresh or frozen tissues, as many pathogens will survive freezing. A lab coat, gloves, face mask, and full eye protection (face shield or goggles) must be worn. Waste tissue must be incinerated. Instruments or surfaces exposed to the tissue must be disinfected using methods for the control of tuberculosis or herpes viruses. Gloves must be removed when leaving the work area, and hands washed. There can be no smoking, eating or application of cosmetics in any laboratory area where nonhuman primate tissues are handled. Working under an exhaust hood is recommended. Fixation should kill any infectious agents in tissues; however, caution is recommended in handling even fixed tissues. If the tissues are formalin-fixed, a lab coat and gloves are required for handling them. Because of the cancer hazard associated with formaldehyde vapor, all work with fixed tissues should be done under a fume hood. A face shield or goggles should be worn.

 <i>David H. Murdock Research Institute</i>	<b>Document Title</b> <b>Occupational Health Program</b>			<b>Document ID</b> SOP-0267	<b>DCO ID</b> 15-284
	<b>Department</b> Operations	<b>Type</b> SOP	<b>Status</b> EFFECTIVE	<b>Date</b> 13MAY2016	<b>Page</b> 16 of 16

<b>REVISION HISTORY</b>		
<b>Superseded Revisions</b>	<b>DCO Number</b>	<b>Effective Date</b>
N/A	15-284	13MAY2016
<b>Current Revision:</b>	<b>1.0</b>	
<b>Section Number</b>	<b>Description of Changes</b>	<b>Justification of Changes</b>
ALL	New SOP describing the Occupational Health Plan for DHMRI	New DHMRI document