

STANDARD OPERATING PROCEDURE:
ANIMAL EXPOSURE & HEALTH ISSUES

1. INTRODUCTION

- 1.1. Research involving animals presents unique hazards related to naturally occurring pathogenic organisms which may be transmitted from the animals and infect the people working with and caring for these animals. Similarly, humans may transmit diseases to animals.
- 1.2. The 9.4T MRI Facility, excluding the Tech office and the Control room, is considered a Level 2 Biohazard Facility as outlined by Health Canada's "Laboratory Safety Guidelines, 3rd edition". However, not all work conducted is Level 2. As such, consult each individual Animal Use Protocol to determine the appropriate Personal Protective Equipment required.
- 1.3. All employees must be enrolled in the Health Monitoring Program at UWO Workplace Health. All employees working with Center for Brain and Mind (CBM) animals must make note of that on their Position Hazard Form.

2. ZONOOSES

- 2.1. **Definition:** The Canadian Council on Animal Care defines zoonosis as a disease of animals that may, under natural conditions, be transmitted to humans. The list of potential zoonoses related to working with animals in research is quite long, however, the incidence of infection can be relatively low if the proper precautions are used.
- 2.2. **Precautions:** No eating or drinking or storage of food is allowed in the lab areas. Gloves must be worn when handling animals and animal related items. Hands must be washed upon removal of gloves, and again prior to leaving the facility. A lab coat, scrubs, or other protective clothing must be worn when working with animals.
- 2.3. **Prevention:** UWO Workplace Health oversees the preventative health program for all RRI employees who work with animals. It is important to update your Position Hazard Form if your duties in the lab change, or if the species you are working with changes.
- 2.4. **Laboratory Animal Allergy (LAA):** Although this is not a zoonotic disease, LAA may be the most prevalent occupational hazard facing people working in experimental animal facilities. The animal allergens are mostly small molecular weight proteins such as albumen. These proteins occur in the serum and tissues, but also in the saliva, urine and skin dander. The appropriate use of personal protective equipment such as good quality particulate masks and gloves can significantly reduce exposure to animal allergens.

3. IMMUNIZATION

- 3.1. Records on the vaccination status of all employees are maintained by UWO Workplace Health. Depending on the specific position and/or species handled, immunizations or tests may be warranted. Consult "UWO Preventative Health Program for Animal Handlers Policy" for more information.
 - 3.1.1. **Tetanus:** To minimize the risks associated with infections arising from any penetrating wounds such as animal bites or needle-sticks, all persons working in laboratory animal facilities should maintain their tetanus vaccination status.

- 3.1.2. Rabies Vaccination: All persons at risk of exposure to rabies from any animal that may be infected, should be vaccinated against rabies. Any animals brought into experimental animal facilities that might have been exposed to rabies should be considered risks. Staff may be required to have rabies vaccination as a condition of working with certain species.
- 3.1.3. Hepatitis B: Immunization is strongly recommended for all workers who routinely handle or who have occupational exposure to human blood, body fluids, organs or tissues. Employees may be immunized depending on the individuals risk group, as determined by contact.
- 3.1.4. TB skin test: Commonly performed on any personnel working with animals. Tuberculosis affects humans, primates, cattle and rodents.

4. PERSONAL PROTECTIVE EQUIPMENT (PPE)

- 4.1. Due to the variance of work conducted in the 9.4T MRI Facility, the PPE necessary will depend on the specifics of each particular experiment.
- 4.2. Consult SOP#210-01 "Personal Protective Equipment", the "Center for Brain and Mind" SOPs, and each individual Animal Use Protocol for specifics and clarification.
- 4.3. As stated in 1.2, the 9.4T MRI Facility is a Level 2 Biohazard Facility.

5. ANIMAL BITES

- 5.1. Personnel, who have not been trained to handle animals, should not do so. Animals can be very unpredictable and proper training is mandatory.
- 5.2. A bite from an animal can turn into a very serious matter. If an animal has bitten you, follow the procedures outlined below. These procedures are also posted throughout the 9.4T MRI Facility.
 - 5.2.1. Immediately wash the wound and surrounding area thoroughly with an antibacterial soap. It is recommended to scrub vigorously for 3-5 minutes, rinse, and repeat two more times.
 - 5.2.2. If the wound is bleeding, attempt to encourage bleeding by expressing the wounded area.
 - 5.2.3. Cover the wound with a dry, sterile dressing.
 - 5.2.4. Immediately inform your supervisor of the incident.
 - 5.2.5. Seek medical attention from UWO Workplace Health. It is advisable to seek medical care in ALL bite cases. Check tetanus status and give booster if >10 years. After hours, report to University Hospital Emergency Department.
 - 5.2.6. Consult the RRI Policy Manual – Accident and Injury Response and Reporting Procedures Policy and UWO Workplace Health Services for more details.

6. EXPOSURE CONTROL PLANS

- 6.1. Any circumstance that presents a particular risk of zoonotic infection should be identified before the risks are encountered. In particular, individuals who are immune compromised (e.g., HIV infection, anti-rejections drugs or steroids, chemotherapy drugs, pregnancy, etc.) should be made aware of the potential risks involved prior to entering the 9.4T MRI Facility.

ROBARTS RESEARCH INSTITUTE
CENTER FOR FUNCTIONAL AND METABOLIC MAPPING:
9.4T MRI FACILITY

SOP#400-01

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SOP Approval Signatures

Dr. Robert Bartha, Facility Director

Date

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Date

Ron Noseworthy, RRI Occupational Health & Safety Officer

Date