

Title/Subject: **ANIMAL RESEARCH OCCUPATIONAL HEALTH AND SAFETY PROGRAM**

Applies to:  faculty  staff  students  student employees  visitors  contractors

Effective Date of This Revision: November 1, 2022

Contact for More Information: Office of Laboratory and Field Safety

Board Policy  Administrative Policy  Procedure  Guideline

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## **BACKGROUND:**

It is the policy of Central Michigan University (CMU) to comply with all Federal, State, and local regulations regarding the provision of personnel health programs for individuals who have animal contact.

As discussed in the National Research Council Guide for the Care and Use of Laboratory Animals (National Academy Press), an occupational health and safety program must be a part of the overall animal care and use program and should focus on maintaining a safe and healthy workplace. The CMU program is based on risk assessment, risk management, personnel training, preventive medicine, and when required, medical treatment.

## **POLICY:**

All personnel involved in animal care and/or use shall participate in the university animal research occupational health and safety program. Supervisors (e.g., department chairs, faculty and other CMU employees or affiliates who have oversight of University employees, students, or other individuals) are responsible for implementing this policy with individuals under their supervision. The Office of Laboratory and Field Safety (OLFS) is responsible for the overall management of the occupational health and safety program for personnel involved in the care and/or use of animals.

### **I. Individuals Covered Under Policy**

- A. Individuals required to submit a medical questionnaire:
  - 1. Those requesting key, badge, or fob level access to animal facilities are considered as having “frequent contact” with animals and are required to complete a medical questionnaire for review by the occupational health provider every year.
  - 2. Principal Investigators will be required to complete a medical questionnaire every year which will be reviewed by the occupational health provider due to their role in oversight of animal research projects.

Note: Failure to complete the medical questionnaire and review process (initial/annual) may result in lack of, or removal of, animal facility access.
- B. Individuals without key, badge, or fob level access to animal facilities, who will be accessing the facility on an infrequent basis and will be escorted while in the spaces, will comply with the Vivaria Access: Visitors Policy university policy. These individuals may choose to complete a medical questionnaire which will be reviewed by the occupational health provider.
- C. Facilities management and other ancillary support entities which may have animal facility access but whose use is limited/infrequent and whose entrance into animal holding areas requires escort are not required to complete a medical questionnaire, but are offered the opportunity to do so.

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Title/Subject: **ANIMAL RESEARCH OCCUPATIONAL HEALTH AND SAFETY PROGRAM**

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## II. Basic Animal Handler Health and Safety Program Components

Risk assessment considers: 1) hazards posed by the animals, 2) hazardous biological, chemical, or physical agents used in the animal activity, and 3) susceptibility of personnel. The supervisor or instructor will provide the animal handler with information regarding the risks associated with their laboratory or classroom activity and the tasks that the animal handler will perform. Under no circumstances will the supervisor direct an individual in completing the medical questionnaire as these forms will contain protected information. If an animal handler has questions regarding how to complete the questionnaire, they will contact the Office of Laboratory and Field Safety or the Office of Research Compliance. There is no personal cost to the individual associated with the occupational health program.

## III. Definitions

- A. **Animal:** Any live or dead vertebrate animal used or intended for use in research, research training, teaching, experimentation, demonstration, or biological testing or for related purposes.
- B. **Animal Contact:** Animal contact may be direct or indirect. Indirect contact is contact with animal products or items that have been in contact with animals. Animal products include unpreserved tissues, blood, excreta, body fluids or discharges, hair, dander, etc. Items that could be contaminated include sharps, pens and cages, bedding, clothing, gloves, etc.
- C. **Animal Handler:** Anyone who has animal contact related to classroom, teaching, research or outreach activities at CMU.
- D. **Animal Facility:** Any and all buildings, rooms, areas, or enclosures, including satellite facilities, used for animal confinement, maintenance, breeding, or experiments inclusive of surgical manipulation. A satellite facility is any containment outside of a core facility or centrally designated or managed area in which animals are housed for more than 12 hours.
- E. **Risk Assessment:** The process by which risks associated with working with animals (such as hazardous biological, chemical, or physical agents; allergens; or zoonoses) are identified.
- F. **Risk Management:** The process by which identified risks are managed through such actions as education, training, personal protective equipment, zoonosis surveillance, or immunization.
- G. **Risk Training and Education:** A program of training and education about areas of risk when working with animals in general or with specific species, conducting specific experiments, or exposure to animal allergens.
- H. **Supervisors:** Department chairs, faculty, and other CMU employees or affiliates who have oversight of University employees, students, or other individuals and who are involved with animals; those individuals who are not CMU employees but are affiliated through courtesy or adjunct appointments may serve as supervisors.

## IV. Hazard Identification and Risk Assessment

Hazard identification and risk assessment is a dynamic, ongoing process performed throughout the animal care and use program by a range of personnel and committees. Cornerstone elements include protocol review, specialized committee evaluations, routine facility inspections, and medical assessment and surveillance.

The Institutional Animal Care and Use Committee (IACUC) protocol submission form queries investigators regarding potential use of biological agents, hazardous chemicals, and radioisotopes. Protocols involving the use of biological agents or radioisotopes require pre-approval from specialized committees (i.e., Institutional Biosafety Committee, and Radiation Safety Committee) prior to IACUC approval. OLFS assists with evaluating proposals or activities involving unique hazards (e.g. chemicals, UV light, noise, lasers, electrical hazards, compressed gas, etc.).

Routine facility inspections are performed by IACUC and OLFS to provide ongoing hazard and risk assessment, as well as to assess the adequacy of control measures and compliance with safety regulations. Medical professionals contribute to the comprehensive risk assessment process by evaluating the health status of the individual with respect to particular animal species contacted, potential exposure to harmful materials or activities, and the nature and extent of the contact with the animal.

Title/Subject: **ANIMAL RESEARCH OCCUPATIONAL HEALTH AND SAFETY PROGRAM**

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The most common biological hazards and risks that have been identified include allergy/asthma, zoonotic infections, and bites/scratches. The most common chemical hazards include the use of anesthetic gases, disinfectants/cleaners, and chemicals for preserving tissues. The most common physical hazards include slips, trips, falls, and lifting hazards.

## **V. Work Practice and Engineering Control Measures**

Detailed work practice and engineering control measures are specified in relevant IACUC protocols. Some fundamental measures applicable to nearly all animal care and use activities are described below.

Hand washing is required after handling animals and prior to leaving animal care and use areas. In areas where sinks are not available in the immediate vicinity, hand sanitizer dispensing stations are provided to readily facilitate infection control until proper hand washing facilities become available. Eating, drinking, and smoking are prohibited in all animal rooms.

Laboratory coats, scrub tops, gowns, disposable coveralls, or other garments are worn as appropriate to protect street clothes from contamination when handling animals. Gloves are worn whenever handling animals, their fluids, tissues, excreta, or soiled bedding to reduce exposure to allergens and potentially zoonotic agents. Protective equipment such as head covers, shoe covers, eye protection, hearing protection, and respirators may be required as determined by risk assessment. Personnel who use respirators are enrolled in the University Respiratory Protection Program managed by Risk Management/Environmental Health & Safety (RMEHS) in conjunction with OLFS. Essential elements of this program include medical clearance, respiratory selection and fit testing, and training. Protective clothing and equipment is not to be worn beyond the boundary of animal work areas.

Sharps precautions are rigidly enforced, as are methods to minimize human exposure to biological agents and hazardous experimental or laboratory chemicals (e.g. anesthetic gases, tissue fixatives). OLFS tracks and manages certification of all biological safety cabinets. Facilities Management tracks and manages certification of all chemical fume hoods.

Personnel who are not involved in animal care and/or use but nevertheless need to enter areas where animals are housed or used (e.g. Facilities Management personnel, outside contractors) must be trained and approved by an authorized person who can inform them of the potential risks and provide the necessary personal protective equipment for the area. They may voluntarily participate in the animal research occupational health program by contacting OLFS.

## **VI. Training**

The OLFS provides training and oversight of chemical, radioactive, biological, and other occupational hazards. All University personnel have access to this training.

Personnel engaged in animal research or teaching attend a mandatory training session taught by the coordinators of animal facilities or their designee. The training is designed to present the most up-to-date guidelines and procedures to all animal handlers, and include training on proper use of anesthetics, analgesics, and tranquilizers, animal handling techniques, and zoonotic diseases. During training, individuals who are pregnant, want to become pregnant, or are immunocompromised are advised to consult with the occupational health provider.

## **VII. Screening and Preventative Medicine (Health Maintenance Program)**

Individuals complete a medical questionnaire for review by the occupational health provider. As part of the medical questionnaire, individuals are queried on allergies associated with animal handling. Participants with a history of pre-existing animal allergies or asthma will be provided with information and training as appropriate, and if needed will be referred to their primary care provider. Health histories are used to assess risk focusing on allergies/asthma, zoonotic disease, animal bites/scratches, and immunization updates. If participants are deemed higher risk (i.e. has asthma/allergies to animals, pregnant/immunosuppressed) they may be asked to come in for a physical exam or other testing as well as documentation from their treating physicians as to their ability to work with animals. Once evaluation is completed, the

Title/Subject: **ANIMAL RESEARCH OCCUPATIONAL HEALTH AND SAFETY PROGRAM**

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occupational health provider will indicate if the individual is approved to work with animals, approved to work with animals with restrictions, or not approved to work with animals. This evaluation is conducted every year.

Participant's protected health information will be treated in a manner consistent with the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule and CMU's HIPAA policies.

If any hazardous biological, chemical and physical agents are identified in the initial screening, the appropriate CMU oversight committees for these areas will be notified.

### **VIII. Immunizations**

Individuals will have the following documented through their medical questionnaire:

- a. Immunizations will be updated according to recommendations of the Immunization Practices Advisory Committee (ACIP) of the Center for Disease Control. Booster doses will be recommended as needed.
- b. Other vaccination recommendations will be determined on an individual basis after the risk assessment that reviews animal species, risk exposure, and personal health history. The occupational health provider, with added consultation as needed from the OLFS or the Principal Investigator of the project, will make this determination.

Individuals may decline to participate in an immunization program recommended by the occupational health provider. CMU, however, reserves the right to require individuals to participate in a preventive medicine program, which may include immunization, as it deems necessary.

### **IX. Animal-Related Illness, Injury, or Unsafe Conditions**

All participants should be familiar with CMU's Guidelines for Handling Injuries on Campus, located on the RMEHS website.

### **X. Monitoring of Policy**

The CMU Institutional Animal Care and Use Committee (IACUC) together with the Office of Laboratory & Field Safety (OLFS) shall periodically assess this policy for compliance and potential needed changes.

*Central Michigan University reserves the right to make exceptions to, modify or eliminate this policy and or its content. This document supersedes all previous policies, procedures or guidelines relative to this subject.*