

**FITCHBURG STATE UNIVERSITY POLICY  
FOR THE CARE AND USE OF VERTEBRATE ANIMALS IN  
TEACHING AND RESEARCH**

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## A. INTRODUCTION

### 1. Purpose

Ensuring the humane care and treatment of animals used for teaching and research is an institutional responsibility that is shared by a number of distinct stakeholders at Fitchburg State University (Fitchburg State), involving both administrators and individual researchers, including students. Key to this effort is the Institutional Animal Care and Use Committee (IACUC), with members from both within and outside the University community appointed in accordance with the latest edition of the *Guide for the Care and Use of Laboratory Animals* (hereafter *Guide*; published by the National Research Council, National Academy of Sciences). Others with critical roles are the Institutional Official (IO), the Attending Veterinarian, and both animal care and research staff. This Policy articulates the roles and responsibilities of these stakeholders, and provides specific guidelines for meeting those obligations.

### 2. Applicability

This Policy applies to **all activities involving vertebrate animals** by Fitchburg State faculty, staff or students, whether the activities are performed at Fitchburg State, at collaborating institution(s), or in the field, or whether the activities are externally funded by federal, state or private grants or only locally supported by institutional funds. Investigators conducting activities involving animals shall comply with this Policy, which sets forth standards for the humane care and use of vertebrate animals.

Through pursuit and enforcement of this Policy, the University will ensure that the use of vertebrate animals in teaching and research by University staff complies with all relevant Federal, state and local laws and regulations and, in principle, conforms to the highest standards of ethical practice as applied to the use of animal subjects in specific instructional activities and research projects. In particular, this Policy conforms to the requirements of the [Animal Welfare Act](#), administered by the U.S. Department of Agriculture (USDA), and the Public Health Service (PHS) [Policy on Humane Care and Use of Laboratory Animals](#), administered by the Office of Laboratory Animal Welfare, National Institutes of Health.

### 3. Responsibilities and Procedures

- a. The University IACUC shall maintain records of committee activities in the Grant Center. These records shall be available for inspection by authorized representatives of governmental agencies.
- b. Faculty members having jurisdiction over animal care and use facilities are responsible for the implementation of professionally acceptable standards for the care and use of all animals within their jurisdiction and assuring that those standards are met.
- c. All investigators, including students, must follow the procedures and guidelines set forth by the IACUC and additionally accept responsibility to assure actions dealing with animals will be in accordance with humane standards and the laws and regulations cited in Sections A.4 Definitions and F. References. Investigators are responsible for authorized care and use of animals by students under their supervision.
- d. Standards for the construction and use of housing, service, and surgical facilities for animals shall meet those described in the *Guide* or otherwise required by the Animal Welfare Act (P.L. 89-544).

- e. Transportation of animals must be in accord with state and applicable standards and promptly delivered, uncrated, and placed in the Animal Care facility.
- f. Acquisition of animals shall be in accordance with state and federal laws and regulations.
- g. Disposal of dead animals shall be in accordance with governmental regulations.
- h. All activities involving animals for which the University bears any responsibility must be considered by the University IACUC in accordance with protocol review procedures.

#### 4. Definitions

- a. *Animal* - Any live, vertebrate animal used or intended for use in research, research training, teaching, or related purposes.
- b. *Animal Facility* - Any and all buildings, rooms, areas, enclosures, or vehicles, including satellite facilities, used for animal confinement, transport, 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 24 hours.
- c. *Animal Welfare Act* – The Animal Welfare Act, or AWA, is formally known as Public Law 89-544, 1966, as amended, (P.L. 91-579, P.L. 94-279 and P.L. 99-198) 7 U.S.C. 2131 et. seq. Implementing regulations are published in the Code of Federal Regulations (CFR), Title 9, Chapter 1, Subchapter A, Parts 1, 2, and 3, and are administered by the [U.S. Department of Agriculture](#).
- d. *Animal Welfare Assurance or Assurance* - The documentation from this Institution assuring institutional compliance with this Policy, when requested by the Office of Laboratory Animal Welfare (OLAW), National Institutes of Health, prior to funding an approved grant proposal.
- e. *Attending Veterinarian* - A Doctor of Veterinary Medicine with training and experience in laboratory animal science and medicine, who will serve on a consulting basis with statutory oversight responsibilities for veterinary care in the Fitchburg State Animal Care Program, including permanent membership on the Fitchburg State IACUC.
- f. *Guide* - Guide for the Care and Use of Laboratory Animals, National Academy Press, 2011, Washington, D.C., or succeeding revised editions.
- g. *Institution* – Fitchburg State University.
- h. *Institutional Official* - An individual who signs, and has the authority to sign the Institution's Assurance, making a commitment on behalf of the Institution that the requirements of this Policy will be met. The Institutional Official bears ultimate responsibility for the Program, including allocation of resources, in coordination with both the Attending Veterinarian and the IACUC. This person will be either the President or his/her designee.
- i. *Public Health Service* - The Public Health Service, or PHS, currently includes the Agency for Healthcare Research and Quality, Centers for Disease Control and Prevention, the Food and Drug Administration, the Health Resources and Services Administration, the Indian Health Service, the National Institutes of Health, and the Substance Abuse and Mental Health Services Administration.
- j. *Quorum* - A majority of the members of the Institutional Animal Care and Use Committee (IACUC) in attendance (i.e., four or more), needed to conduct official business. Any official decision of the IACUC requires majority approval of those present in a quorum.

## B. INSTITUTIONAL POLICIES

### 1. Monitoring the Care and Use of Animals – the IACUC

- a. The University IACUC will provide: 1) oversight and review of all animal care and use facilities and procedures; and 2) timely certifications and reports of the humane care and use of animals as required by governmental agencies.
- b. The University IACUC will consist of seven persons plus the Director of Grants and Programs, who will serve *ex officio*, except when needed to break a tie or establish a quorum. The voting membership will include the following:
  - (1) a Doctor of Veterinary Medicine with training and experience in laboratory animal science and medicine, to serve also as Attending Veterinarian;
  - (2) two faculty members, appointed by the MSCA Executive committee, who are practicing scientists, at least one of which is experienced in research involving animals;
  - (3) one faculty or librarian member, appointed by the MSCA Executive committee, who comes from a nonscientific background;
  - (4) the Environmental Health and Safety (EH&S) Officer;
  - (5) one public member currently not affiliated with the University, appointed by the President, to represent general community interests in the proper care and use of animals; and
  - (6) one student representative, appointed by Student Government Association.

The Chair will be one of the faculty members who are practicing scientists. All appointed members will serve one-year terms, except for the Attending Veterinarian, EH&S Officer, and Director of Grants and Programs, who will serve as permanent members. The Chair will be responsible for keeping records of committee deliberations and issuing reports and applications for certification, as needed. Note that all records will be kept under the auspices of the Grant Center.

- c. The IACUC shall meet at least twice per year. These meetings will usually be held once during the Fall Semester and once during the Spring Semester. Additional meetings may be held as needed, e.g., to review animal use protocol proposals. The minutes of the meetings will serve as documentation of compliance.
- d. The IACUC will review at least once every six months the institution's program, using the Guide as a basis for evaluation.
- e. The IACUC will inspect the animal facilities and summarize the findings using the Guide as a basis for evaluation.
- f. Campus personnel (faculty, staff, or students) wishing to use animals in research or teaching shall complete the appropriate documents and submit them to the Grant Center, which shall forward the materials to the IACUC. Guidelines and forms are available in the Grant Center.
- g. Project proposals shall be submitted for approval to the IACUC and shall include complete descriptions for use of animal subjects.
- h. Project proposals shall provide the following information, using the most current versions of the Animal Study Protocol Review forms:
  - 1) The nature and objectives of the investigation to be performed on the animal subjects;
  - 2) The scientific rationale for use of the animals;
  - 3) Justification for species and number of animals to be used;

- 4) Assurance that unnecessary duplication of previous research will be avoided, and that suitable alternatives to using vertebrate animals have been considered;
  - 5) Proposed methods to avoid or minimize pain and discomfort to the animals;
  - 6) Location of facilities for care and use of animal subjects;
  - 7) Requirements for care and use of the animal.
- i. The University IACUC will evaluate the application for the following:
- 1) Adherence to provisions and standards of applicable laws and regulations and campus policies;
  - 2) Provisions for humane care, handling, and use of animal subjects;
  - 3) Appropriate use of anesthetic, analgesic, tranquilizing and euthanatizing agents;
  - 4) Proper arrangement for animal care and use facilities;
  - 5) Agreement with the following principles:
    - i. Procedures should be designed to yield useful results and should be based on knowledge of the disease, problem, or biology of the animal under study.
    - ii. Procedures should avoid all unnecessary pain and discomfort to the animals. It is therefore essential that personnel caring for and using animals be very familiar with species-specific and individual behavioral, physiologic, and biochemical indicators of pain.
    - iii. Persons in charge of the procedures will be prepared to terminate the procedures whenever their continuation may result in unnecessary injury or suffering to the animals.
    - iv. Brief physical restraint of animals for examination, collection of samples, and a variety of other clinical and experimental manipulations can be accomplished manually or by mechanical means. Such devices must be suitable in size and design for the animal being held and must be operated properly to minimize discomfort and to avoid injury to the animal. Prolonged restraint of any animal should be avoided unless essential to research objectives. Less restrictive systems, such as the tether system, should be used when compatible with research objectives.
    - v. Post experimental care of animals must be such as to minimize discomfort in accordance with acceptable practices in veterinary medicine.
    - vi. Animals that are euthanized must be treated humanely and in such a way as to ensure rapid and painless death. No animal shall be discarded until after it is dead. Attempts to donate surplus animals to other institutions or individuals for humane purposes should be made as an alternative to destruction and must be approved by the IACUC. Those who receive animals must first sign a statement assuming responsibility for the animals received.
- j. No IACUC member may participate in the approval or review of an activity in which that member may have a conflicting interest. An IACUC member may participate in and provide technical guidance for the discussion of an activity in which the member may have a conflicting interest, but cannot participate in the decision-making process or be present for any IACUC vote on that activity.

## **2. Animal Care Personnel**

- a. The Attending Veterinarian has statutory oversight responsibility for veterinary care of animals used in research and teaching by Fitchburg State personnel, exercised through his/her membership on the IACUC, regular visits to and inspections of the animal facilities, and consultation as needed with Animal Caretaking and Scientific Staffs.
- b. The Animal Caretaking Staff comprises student caretakers and active researchers, both faculty and students. Each active faculty investigator will have primary responsibility over the care of animals used in his/her studies. One faculty member among the active investigators will be designated by mutual agreement each semester (fall, spring, summer) to serve as Facility Manager for that semester. The Facility Manager will oversee and organize the day-to-day care of animals housed in the Department of Biology and Chemistry vivarium, including supervision of animal care and use by student caretakers and investigators, in coordination with faculty investigators. The Facility Manager will have completed the institutionally required animal care and use training course, and will work closely with the Attending Veterinarian and faculty investigators to assure that all institutional policies for animal care and use are followed. Where supported by funding, a Facility Manager may be hired as an employee of the University, to take the place of a faculty member serving in this role.
- c. Student caretakers may be hired to assist the active researchers in providing day-to-day care of the animals. They will have completed the institutionally required animal care and use training course.
- d. The Scientific Staff comprises well-qualified, experienced faculty members and their students, who are engaged in approved use of animals in laboratory, field, or classroom settings. When students are involved as researchers, they are formally supervised by one of these faculty members, as well as by the Facility Manager when engaged in routine animal care in the absence of the faculty supervisor. Both faculty and student investigators will have completed the institutionally required animal care and use training course.
- e. All Animal Care personnel will complete the institutionally required animal care and use training course, presented via the Collaborative Institutional Training Initiative (CITI) program or a similar program.

## **3. Veterinary Care**

- a. Adequate veterinary care consists of observing all animals daily, to assess their health and welfare; using appropriate methods to prevent, control, diagnose, and treat diseases and injuries; providing guidance to users regarding handling, immobilization, anesthesia, analgesia, and euthanasia; and monitoring surgery programs and post-surgical care.
- b. The Attending Veterinarian has statutory oversight responsibility for veterinary care of animals used in research and teaching by Fitchburg State personnel. Although members of the Caretaking and Scientific staffs will have routine responsibility for observing resident animals, a mechanism of direct and frequent communication should be adopted so that timely and accurate information on problems in animal health, behavior, and well-being is conveyed to the Attending Veterinarian.
- c. The Attending Veterinarian will also contribute to the establishment of appropriate policies and procedures for ancillary aspects of veterinary care, such as: advising on experimental models; reviewing protocols and proposals with respect to veterinary care, animal husbandry, and animal welfare; monitoring occupational health, hazard containment, and zoonosis control programs; and supervising animal nutrition, husbandry and sanitation.
- d. The Attending Veterinarian will visit and inspect the animals and facilities twice per year, or once every six months where animals are held for 24 hours or more.



## **4. Occupational Health Program**

### **a. Content of Program**

Participation in the Occupational Health Program is mandatory for all faculty, staff, students and volunteers who work in University laboratory animal facilities or conduct research with animals or animal tissues. Periodic physical examinations are advised following occupational hazards such as animal bites or exposure to hazardous biologic, chemical, and physical agents.

### **b. Program Oversight**

The IACUC will oversee the implementation of the Occupational Health & Safety Program in relation to the Animal Welfare Program.

### **c. Training on Zoonosis**

Zoonosis surveillance is part of an occupational health program and includes keeping records of individual work assignments, bite wounds, and unusual illnesses. Personnel are instructed to notify their supervisors of illnesses and of suspected health hazards.

### **d. Personal Hygiene**

A high standard of personal cleanliness is essential. Personnel are not permitted to eat, drink, use tobacco products, or apply cosmetics in animal rooms.

## **5. Experimentation Involving Hazardous Agents/Chemicals.**

The Chemical Hygiene Plan is designed to identify the safety practices that should be implemented when working with common hazardous chemicals found in the laboratory. These safeguards will protect laboratory workers from unsafe conditions in most situations. There are instances, however, when the physical and chemical properties, the proposed use, the quantity used or the toxicity of a substance will be such that these controls may need to be modified. This document identifies the ways in which Fitchburg State is complying with each portion of the Occupational Safety and Health Administration (OSHA) Lab Standard. An official copy of the Fitchburg State Chemical Hygiene Plan is located in the EH&S office.

### **a. Policies and Procedures**

Protective devices and other safety measures consistent with current practices are used to guard against exposure to potentially hazardous biological, chemical and physical agents (CFR, 1984a, b).

### **b. Monitoring**

The Environmental Health and Safety Officer is knowledgeable about hazardous agents and is appointed to evaluate safety issues. The procedures and facilities used in such studies are reviewed by both this officer and the IACUC. Formal safety programs are established to assess the hazards, determine the safeguards needed for their control, and ensure that the staff is competent and the facilities are adequate for the safe conduct of the research. Technical support is provided to monitor compliance with federal, state and local regulations and institutional biosafety policies.

## **6. Multiple Major Surgical Procedures**

Multiple major survival surgical procedures on a single animal are discouraged. However, under special circumstances they might be permitted with the approval of the IACUC. Multiple survival surgical procedures might be justified when they are related components of a research project. Cost savings alone is not an adequate reason for performing multiple survival surgical procedures.

## **7. Record Keeping**

At a minimum, the IACUC will maintain the following records:

- a. minutes of IACUC meetings, including records of attendance, activities of the committee, and committee deliberations;
- b. records of applications, proposals, and proposed significant changes in the care and use of animals and whether IACUC approval was given or withheld;
- c. records of semiannual IACUC reports and recommendations;
- d. Occupational Health Program surveys and documentation (secured at Health Alliance).

All records shall be maintained at the Grants Center for at least three years; records that relate directly to applications, proposals, and proposed significant changes in ongoing activities reviewed and approved by the IACUC shall be maintained for the duration of the activity and for an additional three years after completion of the activity.

## **C. LABORATORY ANIMAL HUSBANDRY**

### **1. Standard Care**

The Attending Veterinarian, in consultation with faculty principal investigators (PI's), will design a program of Standard Care for each vertebrate species to be housed in the vivarium, which then will be implemented by Animal Caretaking Staff. This will constitute routine provision of appropriate food, water, housing, bedding and sanitation, to be employed unless otherwise instructed by the PI on an approved protocol.

### **2. Food**

Animals should be fed palatable, non-contaminated, and nutritionally adequate food daily or according to their particular requirements unless the protocol in which they are being used requires otherwise. The PI will define in his/her proposal to the IACUC the feeding requirements of the project, choosing either standard care or a specifically detailed alternative.

### **3. Water**

Animals should have access to potable, uncontaminated drinking water according to their particular requirements. The PI will define in his/her proposal to the IACUC the hydration requirements of the project, choosing either standard care or a specifically detailed alternative.

### **4. Housing**

Animal housing should be appropriate to the animal and comply with relevant regulatory guidelines. The PI will define in his/her proposal to the IACUC the housing needs of the project, choosing either standard care or a specifically detailed alternative.

The caging or housing system should be designed carefully to facilitate animal well-being, meet research requirements, and minimize non-experimental variables.

The housing system provides adequate space that:

- permits freedom of movement and normal postural adjustment;
- has a resting place appropriate to the species;
- provides a comfortable environment;

- provides an escape-proof enclosure that confines animals safely;
- provides easy access to food and water;
- provides adequate ventilation;
- meets the biological needs of the animals, e.g., maintenance of body temperature, urination, defecation, and, if appropriate, reproduction;
- keeps the animals dry and clean, consistent with species requirements;
- avoids unnecessary physical restraint; and
- protects the animals from known hazards.

Caging systems are constructed of sturdy, durable materials and designed to minimize cross-infection between adjoining units. Cages have smooth, impervious surfaces that neither attract nor retain dirt and a minimum number of ledges, angles and corners in which dirt or water can accumulate. The design allows inspection of cage occupants without disturbing them. Feeding and watering devices are easily accessible for filling, changing, cleaning and servicing.

Cages and tanks are kept in good repair to prevent injury to animals, promote physical comfort, and facilitate sanitation and servicing. Particular attention is given to eliminating sharp edges and broken wires, keeping cage floors in good condition, and refurbishing or replacing rusted or other deteriorating equipment.

The social environment considers whether the animals are naturally territorial or communal and whether they will be housed singly or in groups. When appropriate, group housing is considered for communal animals. In grouping animals, population density and ability to disperse, initial familiarity among animals, and age, sex and social rank are considered. Recommendations about space, temperature and humidity, ventilation, illumination, and noise, which can be found in *Guide for the Care and Use of Laboratory Animals*, are followed.

## **5. Bedding and Related Ancillary Housing Materials**

Rodents should be provided with bedding and nesting materials that support species-typical behavior, facilitate absorption of urine and feces and water spills, and promote thermoregulation. Non-mammalian vertebrates may also benefit from ancillary materials that provide places for hiding and sleeping, such as rocks and plants. The PI will define in his/her proposal to the IACUC the bedding and related ancillary housing needs of the project, choosing either standard care or a specifically detailed alternative.

## **6. Sanitation**

Sanitation is the maintenance of conditions conducive to health and involves bedding change, cleaning, and disinfection. The frequency and intensity of cleaning and disinfection should depend on what is needed to provide a healthy environment for an animal. The PI will define in his/her proposal to the IACUC the sanitation needs of the project, choosing either standard care or a specifically detailed alternative.

## **7. Behavioral Needs**

According to the Animal Welfare Act, captive animals should have the freedom to express normal species typical behavior. The various types of environmental enrichment used with the captive lab animals will depend upon the individual species under study. The PI will define in his/her proposal the behavioral needs of animals used in the project, choosing either standard care or a specifically detailed alternative.

## **8. Animal Identification and Records**

Animal records allowing identification of animals, sources of acquisition, and methods of disposal will be maintained by the PI and made available to the IACUC upon request.

## **9. Provisions for Emergency, Weekend and Holiday Care**

The Facility Manager will work with the animal caretakers and scientific staff to set up a schedule for daily care of animals housed in the vivarium. The PI has ultimate responsibility for care of animals governed by his/her particular animal use protocol (research or classroom), in the event that other caretakers are unavailable to fill gaps in the caretaking schedule and/or in emergencies.

# **D. VETERINARY CARE**

## **1. Animal Procurement & Transportation**

All animals must be acquired lawfully, either purchased from established retail vendors or received by transfer from established scientific laboratories. Both types of sources will be evaluated and approved based upon particularly the health and vitality of the animals received. Generally, vendors of purpose-bred animals regularly provide information that describes the genetic and pathogen status of their animals. This information is useful for deciding on acceptance or rejection of animals, and similar data should be obtained on animals received by inter-institutional or intra-institutional transfer.

All transportation of animals, including intra-institutional transportation, should be planned to minimize transit time and the risk of zoonosis, protect against environmental extremes and physical trauma, avoid overcrowding and provide food and water when necessary. Efforts must be made to minimize as much as possible transportation-related stress to the animal(s).

Each shipment of animals will be inspected for compliance with procurement specifications, and the animals will be quarantined and stabilized according to procedures appropriate for the species and circumstances.

## **2. Preventative Medicine**

Standard operating procedures to evaluate the health status of newly received, quarantined, animals will be determined by the Attending Veterinarian in accordance with acceptable veterinary medical practice and federal, state and local regulations.

The quarantine protocol will include reviewing documentation of quality control and animal history provided by the vendor. This information is necessary for initial screening of newly received animals and may limit the quarantine period for rodents to the time necessary for inspection on arrival. However, all newly received animals should be provided an appropriate stabilization period prior to their use to ensure that animals adapt to their surroundings and achieve physiological and behavioral stability. If the history of newly received animals is incomplete, the quarantine procedure must be more comprehensive and of sufficient duration to allow expression of diseases, including zoonosis. Physiological and nutritional stabilization and grooming, including bathing, dipping and clipping, may also be required.

Physical separation of animals by species is generally recommended to prevent interspecies disease transmission, reduce stress/anxiety due to interspecies conflict, and meet experimental requirements. Intraspecies separation is advisable when animals obtained from multiple sources

differ in microbiological status. (Additional guidelines are detailed in the *Guide for the Care and Use of Laboratory Animals*).

### **3. Surveillance, Diagnosis, Treatment and Control of Animal Diseases**

All newly received animals are screened upon arrival and quarantined as described in section D2 (above). All laboratory animals will be observed daily for signs of illness, injury or abnormal behavior by a person trained to recognize such signs. Unexpected deaths and deviations from normal must be reported promptly to the person responsible for animal disease control. Sick or injured animals must receive prompt veterinary medical care or be euthanized appropriately. Animals that are suspected of having contagious disease will be isolated from healthy animals in the colony. When an entire group or room of animals is known or believed to be exposed to an infectious agent, the group must be kept intact during the process of diagnosis, treatment and control.

Methods of prophylaxis, diagnosis, therapy and disease control will follow currently accepted practices. When necessary, diagnostic laboratory services will be used to supplement physical examination to facilitate the diagnosis of diseases. These services may include gross microscopic pathology, clinical pathology, hematology, microbiology, clinical chemistry and other appropriate laboratory procedures.

Inapparent viral infections of rodents, which can occur with mouse hepatitis virus, minute virus of mice and lactic dehydrogenase virus, can have an effect on some types of research. Researchers using rodents must be sensitive to signs and symptoms associated with such infections. If an infection is suspected, the group must be kept intact but appropriately isolated from other susceptible animals.

### **4. Anesthesia and Analgesia**

The proper use of anesthetics, analgesics, and tranquilizers in laboratory animals is necessary for both humane and scientific reasons. The choice and use of the most appropriate drugs are matters for the Attending Veterinarian's professional judgment. The Attending Veterinarian will provide research personnel with guidelines and advice concerning choice and use of these drugs. Muscle relaxants or paralytic drugs (e.g., succinylcholine or other curariform drugs) are not anesthetics. They must not be used alone for surgical restraint, although they can be used in conjunction with drugs known to produce adequate analgesia.

If a painful procedure must be conducted without the use of an anesthetic, analgesic, or tranquilizer -- because such use would defeat the purpose of an experiment -- the procedure must be approved by the IACUC and supervised directly by the responsible investigator.

### **5. Survival Surgery and Post-Surgical Care**

The following procedures apply to both non-rodent mammalian and rodent species:

- a. Aseptic surgery will occur only in facilities intended for that purpose. These facilities will be maintained and operated to ensure cleanliness by trained personnel. Surgery will be performed or directly supervised by trained, experienced personnel. Training in aseptic surgical technique will be provided for those who require it.

- b. Aseptic technique will be used on most animals including rodents that undergo major survival surgery. This technique includes wearing of sterile surgical gloves and facemasks and clean gowns or lab coats; use of sterile instruments; and preparation of an aseptic surgical field. Major survival surgery is defined as any surgical intervention that penetrates a body cavity or has the potential for producing a permanent handicap in an animal that is expected to recover. Survival surgery on rodents does not require a special facility but should be performed using sterile instruments, surgical gloves, and aseptic procedures to prevent post-surgical infections.
- c. Appropriate facilities and equipment must be used for post-surgical care. Post-surgical care includes observing the animal to ensure uneventful recovery from anesthesia and surgery; administering supportive fluids, analgesics, and other drugs as required; providing adequate care for surgical incisions; and maintaining appropriate medical records. Equipment and supply items that can be helpful for intensive care include heating pads, vaporizers, vacuum equipment, respirators, cardiac monitors, and oxygen. Surgical recovery must be monitored by trained personnel.
- d. Minor surgical procedures, such as wound suturing and peripheral vessel cannulation, may be performed under less stringent conditions when they are performed in accordance with standard veterinary practices.

## **6. Euthanasia**

Euthanasia, the procedure of killing animals rapidly and painlessly, will be performed by trained personnel using acceptable techniques in accordance with institutional policies and applicable laws. The method used should not interfere with postmortem evaluation.

Techniques for euthanasia generally follow current guidelines established by the American Veterinary Medical Association Panel on Euthanasia (AVMA, 1978). Other methods must be reviewed and approved by the Attending Veterinarian. Acceptable methods of euthanasia are those that initially depress the central nervous system to ensure insensitivity to pain (Canadian Council on Animal Care, 1980). Thus, anesthetic agents are generally acceptable and animals of most species can be killed quickly and humanely by intravenous or intraperitoneal injection of an overdose of barbiturates. Other methods may be used for euthanasia of anesthetized animals because the major criterion for humane treatment has been fulfilled (Lucke, 1979).

Every attempt will be made to euthanize animals in a manner that minimizes reactions among other living animals. Proper euthanasia technique must include a follow-up examination to confirm the absence of a heartbeat, which is a reliable indicator of death. Monitoring respiration is not sufficient because some animals (particularly under deep carbon dioxide anesthesia) can maintain a heartbeat after visible respiration has ceased, making eventual recovery possible.

## **E. PHYSICAL PLANT**

Animal facilities will be designed and constructed in accord with all applicable state and local building codes. Good animal management and human comfort and health protection require separation of animal facilities from personnel areas, such as offices, and conference rooms. Careful planning would make it possible to place animal housing areas next to or near research laboratories but separated from them by barriers, such as entry locks, corridors, or floors. Animals should be housed in facilities dedicated to or assigned for that purpose and not be housed in laboratories merely for convenience. The Department of Biology and Chemistry vivarium has been designed and built with these considerations in mind, following the specifications and recommendations found in the Guide.

## **F. REFERENCES**

### **1. General Policies**

- a. Animal Welfare Act as Amended (7 USC, 2131-2156)
- b. Guide for the Care and Use of Laboratory Animals, National Academy Press, 8<sup>th</sup> edition, 2011, Washington, D.C., or succeeding revised editions.
- c. Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals, Revised August, 2002.
- d. DHEW and PHS Grants Administration Manuals, Chapter 1-43 Animal Welfare, and any succeeding revisions.
- e. Applicable provisions and regulations of the Massachusetts Department of Public Health.
- f. Applicable provisions and regulations of the Marine Mammal Protection Act of 1972,
- g. P.L. 92-522, and any succeeding amendments.
- h. Applicable provisions and regulations of the Endangered Species Act of 1973, P.L. 93-205, and any succeeding amendments.

### **2. Occupational Health Program**

The mission of EH&S Office is to provide assistance, oversight and technical consultation to the University community on all occupational and general health, environmental and safety issues with the goal of ensuring a safe and healthful environment for employees, students and the visiting public.

There are dozens of environmental health and safety regulations and codes at the federal, state, and local levels. It is essential that Fitchburg State understands not only which regulations and codes apply to Fitchburg State activities but also what these regulations specifically require. The EH&S Office will maintain a comprehensive listing of applicable regulations and codes that includes a summary of the regulations, and relevant regulatory citation. Changing activities and operations at Fitchburg State over time will change how regulations and codes apply. Likewise, as new EH&S laws and local ordinances are adopted and new regulations are promulgated, regulatory applicability and impact on the University will change. The EH&S Office serves as a resource to track regulatory developments by subscribing to EH&S newsletters and regulatory bulletins, attending EH&S conferences and seminars, monitoring agency web sites, and participating in agency advisory committees. The EH&S Office will also coordinate programs to train Fitchburg State employees on regulatory requirements.

### **3. Environmental Health & Safety Policies**

Fitchburg State encourages and supports all programs, which promote safety, good health and well-being of faculty, staff, students, and visitors. Fitchburg State is committed to providing a safe and healthful environment for all members of the Fitchburg State community and to reducing injuries and illness to the lowest possible level. To assist academic institutions and businesses in enhancing the safety of laboratory personnel, OSHA published standard 29 CFR 1910.1450, "Occupational Exposure to Hazardous Chemicals in Laboratories". This regulation, known as the "Lab Standard", is designed to protect laboratory personnel from potential hazards associated with the use of laboratory chemicals. Refer to Fitchburg State Chemical Hygiene Plan.

#### **4. Hazardous Agents Policies**

Fitchburg State is committed to protecting the health, safety, and welfare of faculty, staff, students, and the public and to protecting the environment through a comprehensive hazardous substances management program. The elimination of dangerous combinations of hazardous chemicals in storage, the elimination of hazardous accumulations of unwanted substances, the improvement of chemical storage conditions, and the prevention of inappropriate disposal of chemicals through proper handling and disposal of hazardous wastes greatly improves overall safety, reduces potential liability expenses, and protects the environment.

A comprehensive and effective hazardous substances management program, including hazardous waste reduction (toxics use reduction), can only be achieved through control of hazardous substances from the time of purchase through waste generation and final disposal (cradle-to-grave). Proper and complete documentation must be practiced at every stage, to promote safety, to meet legal requirements, to reduce liability, and to provide for the effective management of hazardous wastes.



IACUC #  
To be completed by Grant Center

**Fitchburg State University  
Institutional Animal Care and Use Committee  
Animal Study Protocol Review**

**Faculty / Student Research Standard Form**

Directions: All questions must be answered. If some questions are not applicable, please answer NA. After completing the form, print one copy and sign. Submit the original paper copy with signature to Karen Frank Mays, Director of Grants and Programs (Grant Center, Mazzaferro Center) as well as an electronic copy via email ([kfrankmays@fitchburgstate.edu](mailto:kfrankmays@fitchburgstate.edu)). The electronic copy does not need to show the signature.

This form is to be completed for all **research** projects proposing to study vertebrate animals. Additional schedules may be required for consideration of special methods, such as the proposed use of surgical procedures (see Question 17).

1.	Principal Investigator:		Email Address:	
	Department:		Title:	
	Telephone:	Office:	Home:	Cell:

2.	Co-Investigator:		Email Address:	
	Department:		Title:	
	Telephone:	Office:	Home:	Cell:

3.	Student Investigator:		Email Address:	
	Department:		<input type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate	
	Telephone:	Office:	Home:	Cell:

*If more than one Co-Investigator or Student Investigator, please attach a separate listing. **If the investigators are unable to be contacted concerning an animal in distress, the veterinarian and/or the animal caretaker will make the appropriate decision in the best interest of the animal.***

4.	Project Title:		
	Proposed dates:	Start Date:	End Date:
	Type of Study:	<input type="checkbox"/> Laboratory Study	
		<input type="checkbox"/> Field Study*	
<input type="checkbox"/> Both Laboratory and Field Study*			
4a.	*If field study, does the PI have a state license or scientific permit for pursuing study of wild animals?	<input type="checkbox"/> Yes; Complete item d. <input type="checkbox"/> No; Explain:	
4b.	*Operating License or Permit:	Authorizing entity: Give name and Address: License or permit #:	

5.	Protocol Category:	<input type="checkbox"/> New Protocol	
	<i>Check one by clicking on the appropriate box:</i>	<input type="checkbox"/> Revised Protocol	Original IACUC #:
		<input type="checkbox"/> Renewal	Original IACUC #:
		<input type="checkbox"/> Renewal w/changes	Original IACUC #:

6.	Describe the specific aims of the study; provide a description of the experimental design; and a give brief description of how data will be collected (give sufficient detail for the IACUC to address animal welfare concerns). Include a brief statement regarding the benefits of this study.

7a.	Supply information on the sources used (e.g., search parameters and electronic databases) to ensure that the research is not repetitive, follows accepted protocols and minimizes distress to the animals.

7b	What is the justification for using vertebrates in lieu of other organisms?

8.	External Funding Sponsors (attach proposal or grant application)	a.
		b.
		c.

9.	Identify personnel using animals and if they are authorized to euthanize animals if the PI is unavailable					
	Name & Affiliation	Email	Work Phone	Home Phone	Cell Phone	Authorized to Euthanize ?
a.						<input type="checkbox"/> Yes, <input type="checkbox"/> No
b.						<input type="checkbox"/> Yes, <input type="checkbox"/> No
c.						<input type="checkbox"/> Yes, <input type="checkbox"/> No
d.						<input type="checkbox"/> Yes, <input type="checkbox"/> No
e.						<input type="checkbox"/> Yes, <input type="checkbox"/> No

10	Animal Use Summary: <i>Identify the species and total number of animals to be used in this study. Provide justification for the use, choice of species and total number of animals.</i>			
	USDA Categories are defined as: C: No Pain/distress and no use of pain relieving drugs; D: Pain/distress for which anesthetic, analgesic or tranquilizing drugs used; and E: Pain/distress for which the use of anesthetic, analgesic or tranquilizing drugs are withheld due to adverse effects on procedures, results or interpretations			
	Species	Number	USDA category	Justification for choice of species and number used
	a.			
	b.			
c.				
d.				

11.	Describe below training in the care and use of animals that has been or will be provided to personnel that will be handling the animals. If no training is to be provided, explain why.

12.	Acquisition of Animals
a.	Where will the animals be procured?
b.	Who is the responsible receiving party?
c.	What is the protocol for delivery? Include the measures that will be taken to ensure that the animals are delivered when a responsible party can receive them.
d.	How will animals be moved between and within facilities? Specify what methods will be used to minimize stress, injury, and chance of escape.

13.	What criteria will be used to assess pain, discomfort or distress?
	What steps will be taken to enhance the animal well-being?

14.	Under what circumstances would animals need to be disposed of before the end of the experiment? Describe the procedures that would be followed.

15.	Describe how animals used in the research project will be disposed of at the end of the experiment.
	<input type="checkbox"/> Euthanasia; Briefly explain the procedures to be followed:
	<input type="checkbox"/> Release; Briefly explain the procedures to be followed:
	<input type="checkbox"/> Other Disposal; Briefly explain the procedures to be followed:

16.	Does working with the animals pose a health risk? <input type="checkbox"/> No <input type="checkbox"/> Yes – describe below, including those precautions to be taken to minimize the risk.

17.	Check list of other forms that must be completed: <i>(A Yes answer to any question below requires completion of a schedule relating to that question. A No answer requires no further action)</i>		
a.	Will the study involve housing animals outside of their natural habitat for longer than 24 hr, either in the Biology and Chemistry Department vivarium or in the field?	<input type="checkbox"/> Yes, complete Schedule A - Husbandry <input type="checkbox"/> No	
b..	Will the study involve housing animals at another institution?	<input type="checkbox"/> Yes, Name of Institution: _____ (Attach a copy of the approval) IACUC approval # from other institution: <input type="checkbox"/> No	
c.	Will a surgical procedure be performed on the animal?	<input type="checkbox"/> Yes, complete Schedule B - Surgical Procedures <input type="checkbox"/> No	
d.	Will the study include the use of biohazards, such as infectious pathogens, carcinogens or other toxic materials, or recombinant DNA, to be administered to live animals?	<input type="checkbox"/> Yes, complete Schedule C - Biohazard Materials <input type="checkbox"/> No	
e.	Will the procedure involve the use of non-surgical anesthesia/analgesia or other injections?	<input type="checkbox"/> Yes, complete Schedule D - Non-Surgical Injections, Anesthesia or Analgesia <input type="checkbox"/> No	

18.	Certifications:			
	<b><u>My signature below indicates that I will comply with the procedures and methods outlined in the NIH Publication 85-23, Guide for the Care and Use of Laboratory Animals, as well as PHS policy, the Animal Welfare Act and applicable University policies. I will seek approval from the IACUC before making significant changes in the number of subjects or experimental design as presented in this protocol. I will notify the IACUC of any unexpected adverse affects on the animals.</u></b>			
	Title	Name	Signature	Date
a.	Principal Investigator			
b.	Co-Investigator			
c.	Student Investigator			

Department Chair Approval:		
Name	Signature	Date

IACUC #

To be completed by Grant Center

**Fitchburg State University  
Institutional Animal Care and Use Committee  
Animal Study Protocol Review**

**Schedule A: Husbandry**

Directions: All questions must be answered. If some questions are not applicable, please answer NA. After completing the form, print one copy and sign. Submit the original paper copy with signature to Karen Frank Mays, Director of Grants and Programs (Grant Center, Mazzaferro Center) as well as an electronic copy via email ([kfrankmays@fitchburgstate.edu](mailto:kfrankmays@fitchburgstate.edu)). The electronic copy does not need to show the signature.

This schedule is to be completed for all animal studies in which the animals will be housed for periods longer than 24 hr **outside** of their natural habitat, either on-campus in the Department of Biology and Chemistry vivarium or off-campus in a field facility.

Principal Investigator:

Project Title:

A1	Animal Species Inventory Information: <i>(The number of species should correspond to the- Animal Use Summary on the Research Standard Form (IACUC-RES)).</i>				
	Species	Strain	Where housed (if field facility, also complete A2)	Animal Age	# Animals Housed Daily      Yearly
a.					
b.					
c.					
d.					
e.					

A2	Animal Facilities Field Location	
a.	Address of Site:	
b.	Does the site facility comply with Animal Welfare Regulations?	<input type="checkbox"/> Yes; State governing regulation: <input type="checkbox"/> No; Explain:
c.	Does the facility or investigator have a license or permit for operation?	<input type="checkbox"/> Yes; Complete item d. <input type="checkbox"/> No; Explain:
d.	Operating License or Permit:	Authorizing entity: Give name and Address: License or permit #:

A3	Are animals expected to reproduce?
	<input type="checkbox"/> Yes; If so, describe rate of expected reproduction: <input type="checkbox"/> No

A4	Describe and justify below special caging, care, diet, housing, etc., other than routine husbandry*.

A5	Describe below special animal restraints other than routine caging and handling*.

\*Routine husbandry policies for the vivarium will be established by the Attending Veterinarian in consultation with active principal investigators and the Facility Manager, and will reflect common best practice of care for each species to exhibit species typical behavior and good health. Descriptions in A4 and A5 are required for field facility housing.

<b>Signature of Principal Investigator</b>	<b>Date</b>

IACUC #  
*To be completed by Grant Center*

**Fitchburg State University  
Institutional Animal Care and Use Committee  
Animal Study Protocol Review**

**Schedule B: Surgical Procedures**

Directions: All questions must be answered. If some questions are not applicable, please answer NA. After completing the form, print one copy and sign. Submit the original paper copy with signature to Karen Frank Mays, Director of Grants and Programs (Grant Center, Mazzaferro Center) as well as an electronic copy via email ([kfrankmays@fitchburgstate.edu](mailto:kfrankmays@fitchburgstate.edu)). The electronic copy does not need to show the signature.

This schedule is to be completed for all animal studies in which surgical procedures will be used.

Principal Investigator's Name:
Project Title:

B1.	Species:	
a.	Explain why this species was selected for this procedure.	
b.	Will more than one procedure be done on the animal?	<input type="checkbox"/> No <input type="checkbox"/> Yes, Explain need below

B2.	Describe below the procedure and what alternatives were considered. Give the rationale for rejecting the alternatives.

B3.	Name of Individual	Email Address	Work Phone	Home Phone	Cell Phone
a.	Surgeon:				
b.	Post-procedure care giver:				
c.	Pre-procedure care giver:				

B4.	Operating and Recovery Room Locations
a.	Location of Operating Room:
b.	Location of Recovery Room:

B5.	Will the procedure cause more than momentary or slight pain or discomfort to the animal?	<input type="checkbox"/> No, <i>Go to Item B6</i> <input type="checkbox"/> Yes, <i>Complete B5a and B5b.</i>
a.	Was the attending veterinarian consulted in the planning of these procedures?	<input type="checkbox"/> No ( <i>Consultation must be made before Protocol will be approved.</i> ) <input type="checkbox"/> Yes
b.	Describe how you determined that alternatives to procedures that may cause more than momentary or slight pain or distress to the animal are not available.	

B6.	Will anesthesia/analgesia be used in pre-operative, operative or post-operative procedures?	<input type="checkbox"/> Yes, <i>Complete item B7</i> <input type="checkbox"/> No, <i>Justify below non-use of anesthesia/analgesia</i>

B7.	Anesthesia/Analgesia	Species	Drug	Dose	Route
a.	Pre-Anesthetic:				
b.	Anesthetic:				
c.	Post-procedural:				

B8.	Describe below the pre-operative and post-operative care of the animals:
a.	Pre-operative Care:
b.	Post-operative Care:

B9.	Explain how animals which experience pain or distress that cannot be relieved will be euthanized. Explain the circumstances under which animals will be euthanized during the procedure versus at the end of the procedure. Describe the proposed method of euthanasia, including agent and dose. The AVMA Guidelines on Euthanasia (June 2007 ) should be followed, and deviation from these guidelines will only be considered upon written justification.

Signature of Principal Investigator	Date



IACUC #  
To be completed by Grant Center

**Fitchburg State University  
Institutional Animal Care and Use Committee  
Animal Study Protocol Review**

**Schedule C: Biohazard Materials**

Directions: All questions must be answered. If some questions are not applicable, please answer NA. After completing the form, print one copy and sign. Submit the original paper copy with signature to Karen Frank Mays, Director of Grants and Programs (Grant Center, Mazzaferro Center) as well as an electronic copy via email ([kfrankmays@fitchburgstate.edu](mailto:kfrankmays@fitchburgstate.edu)). The electronic copy does not need to show the signature.

This schedule must be completed for all animal studies that include the use of biohazards, such as infectious pathogens, carcinogens or other toxic materials, or recombinant DNA, to be administered to live animals.

Principal Investigator Name:

Project Title:

	Yes	No	
C1	<input type="checkbox"/>	<input type="checkbox"/>	Has this study been reviewed and approved by the Fitchburg State University Biosafety Committee?  If yes, give the Biosafety Committee approval number:                      and the project title:  If approval was not given, explain the circumstances surrounding the rejection:
C2	<input type="checkbox"/>	<input type="checkbox"/>	Will the study use <i>in vivo</i> infectious pathogens? If yes, describe:
C3	<input type="checkbox"/>	<input type="checkbox"/>	Will the study use <i>in vivo</i> chemical carcinogen, endotoxin or toxin? If yes, describe:
C4	<input type="checkbox"/>	<input type="checkbox"/>	Will the study use recombinant DNA? If yes, describe:

C5.	Describe below how the carcass, bedding material or any other relevant waste products will be disposed.
-----	---

Signature of Principal Investigator	Date

IACUC #  
To be completed by Grant Center

**Fitchburg State University  
Institutional Animal Care and Use Committee  
Animal Study Protocol Review**

**Schedule D: Non-Surgical Injections, Anesthesia or Analgesia**

Directions: All questions must be answered. If some questions are not applicable, please answer NA. After completing the form, print one copy and sign. Submit the original paper copy with signature to Karen Frank Mays, Director of Grants and Programs (Grant Center, Mazzaferro Center) as well as an electronic copy via email ([kfrankmays@fitchburgstate.edu](mailto:kfrankmays@fitchburgstate.edu)). The electronic copy does not need to show the signature.

This schedule must be completed for all animal studies that include the induction of anesthesia or analgesia in non-surgical procedures or delivery of injectable substances for purposes other than peri-surgical anesthesia or analgesia.

Principal Investigator's Name:

Project Title:

D1.	Will Anesthesia/Analgesia be used in a non-surgical procedure?		<input type="checkbox"/> Yes, complete items a, b, c & d <input type="checkbox"/> No		
	Anesthesia /Analgesia	Species	Drug	Dose	Route
a.	Pre-anesthetic				
b.	Anesthetic				
c.	Post-procedural				
d.	Describe the Procedure below:				

D2	Will injections other than for anesthesia/analgesia be used?				<input type="checkbox"/> Yes, complete items a, b, c & d <input type="checkbox"/> No
	Material Injected	Dose	Route	# of Injections per Animal	Purpose of and Justification for the Injection
a.					
b.					

c.					
d.					

Signature of Principal Investigator	Date

IACUC #  
To be completed by Grant Center

**Fitchburg State University  
Institutional Animal Care and Use Committee  
Animal Study Protocol Review**

**Classroom Study Standard Form**

Directions: All questions must be answered. If some questions are not applicable, please answer NA. After completing the form, print one copy and sign. Submit the original paper copy with signature to Karen Frank Mays, Director of Grants and Programs (Grant Center, Mazzaferro Center) as well as an electronic copy via email ([kfrankmays@fitchburgstate.edu](mailto:kfrankmays@fitchburgstate.edu)). The electronic copy does not need to show the signature.

This form is to be completed for all **instructional** projects proposing to study vertebrate animals, as part of a specific University course. Additional schedules may be required for consideration of special methods, such as the proposed use of surgical procedures (see Question 6).

1.	Principal Investigator:		Email Address:	
	Department:		Title:	
	Telephone:	Office:	Home:	Cell:

2.	Course #:	Course Title:
a.	Semesters the course is being offered: (Check the box and enter the year)	<input type="checkbox"/> Fall <input type="checkbox"/> Spring <input type="checkbox"/> Summer
b.	Type of Study:	<input type="checkbox"/> Laboratory Study <input type="checkbox"/> Field Study <input type="checkbox"/> Both Laboratory & Field Study
c.	Course Level:	<input type="checkbox"/> Undergraduate Students Only <input type="checkbox"/> Graduate Students Only <input type="checkbox"/> Undergraduate & Graduate Students

3.	Protocol Category:	<input type="checkbox"/> New Protocol	
	Check one by clicking on the appropriate box:	<input type="checkbox"/> Revised Protocol	Original IACUC #:
		<input type="checkbox"/> Renewal	Original IACUC #:
		<input type="checkbox"/> Renewal w/changes	Original IACUC #:

4.	Describe the specific aims of the study; provide a description of the experimental design and a brief description of the methodology to be used (give sufficient detail for the IACUC to address animal welfare concerns). Include a brief statement regarding the benefits of this study.

5	What criteria will be used to assess pain, discomfort or distress and what steps will be taken to enhance animal well being?
	What steps will be taken to enhance animal well-being?

6.	Check list of other forms that must be completed: ( <i>A Yes answer to any question below requires completion of a schedule relating to that question. A No answer requires no further action.</i> )	
a.	Will the study involve housing animals in the Biology and Chemistry Department vivarium?	<input type="checkbox"/> Yes, complete Schedule A - Husbandry <input type="checkbox"/> No
b.	Will the study involve housing animals at another institution?	<input type="checkbox"/> Yes, Name of Institution: _____ (Attach a copy of the approval) IACUC Approval # from that institution: <input type="checkbox"/> No
c.	Will a surgical procedure be performed on the animals?	<input type="checkbox"/> Yes, complete Schedule B - Surgical Procedures <input type="checkbox"/> No
d.	Will the study include the use of biohazards, such as infectious pathogens, carcinogens or other toxic materials, or recombinant DNA, to be administered to live animals?	<input type="checkbox"/> Yes, complete Schedule C - Biohazard Materials <input type="checkbox"/> No
e.	Will the procedure involve the use of non-surgical injections or anesthesia/analgesia?	<input type="checkbox"/> Yes, complete Schedule D - Non-surgical Injections, Anesthesia or Analgesia <input type="checkbox"/> No

7.	Animal Use Summary: <i>Identify the species you will allow your students to use and the total number of animals to be used. Provide justification for the use, choice of species and total number of animals.</i>		
	Species	Number	Justification for choice of species and number used
a.			
b.			
c.			

8.	Describe below training in the care and use of animals that has been or will be provided to the students that will be handling the animals. If no training is to be provided, explain why.

9.	Does working with the animals pose a health risk? <input type="checkbox"/> No <input type="checkbox"/> Yes – describe below, including those precautions to be taken to minimize the risk.

10	State below the arrangements for procurement of animals:

11.	Under what circumstances would animals need to be disposed of before the end of the experiment? Describe the procedures that would be followed, including the names of personnel, other than the primary investigator, authorized for this procedure.

12.	Describe how animals used in the research project will be disposed of at the end of the experiment.
	<input type="checkbox"/> Euthanasia; Briefly explain the procedures to be followed, including the names of personnel, other than the primary investigator, authorized for this procedure:
	<input type="checkbox"/> Release; Briefly explain the procedures to be followed, including the names of personnel, other than the primary investigator, authorized for this procedure:
	<input type="checkbox"/> Other Disposal; Briefly explain the procedures to be followed, including the names of personnel, other than the primary investigator, authorized for this procedure:

13	What is the justification for using vertebrates in lieu of other organisms?

<p><b><u>My signature below indicates that I will comply with the procedures and methods outlined in the NIH Publication 85-23, Guide for the Care and Use of Laboratory Animals, as well as PHS policy, the Animal Welfare Act and applicable University policies. I will seek approval from the IACUC before making significant changes in the number of subjects or the experimental design as presented in this protocol. I will notify the IACUC of any unexpected adverse affects on the animals.</u></b></p> <p><b><u>In the event that this is a research-oriented course, in which students will be pursuing independent projects that include animal study, I also state that I will have each student complete an IACUC-STU form applying to me for approval of their student research project. It will be my responsibility to ensure compliance with University policies relating to the care and use of animals in student research in my course, and to retain copies of these student forms should subsequent formal review by the University IACUC be necessary.</u></b></p>	
Signature of Principal Investigator	Date

Department Chair Approval:		
Name	Signature	Date

IACUC #  
*To be supplied by instructor  
from IACUC-approved  
Classroom Study protocol*

**Fitchburg State University  
Institutional Animal Care and Use Committee  
Animal Study Protocol Review**

**Student Classroom Research Project**

Directions: All questions must be answered. If some questions are not applicable, please answer NA. Completed form should be given to course instructor.

This form is to be completed by any student or small group of students (LTE 3) proposing to study vertebrate animals in pursuit of an **independent research project** as part of a **specific University course**. The project must be based on a previously approved animal study protocol for classroom study, using form IACUC-CLASS. Additional schedules may be required for consideration of special methods, such as the proposed use of surgical procedures (see Question S4).

S1-1.	Student Investigator:                      Email Address:			
	<input type="checkbox"/> Undergraduate; Degree Program:		<input type="checkbox"/> Graduate; Degree Program:	
	Telephone:	Local:	Home:	Cell:
S1-2.	Student Investigator:                      Email Address:			
	<input type="checkbox"/> Undergraduate; Degree Program:		<input type="checkbox"/> Graduate; Degree Program:	
	Telephone:	Local:	Home:	Cell:
S1-3.	Student Investigator:                      Email Address:			
	<input type="checkbox"/> Undergraduate; Degree Program:		<input type="checkbox"/> Graduate; Degree Program:	
	Telephone:	Local:	Home:	Cell:

S2.	Course #:                      Course Title:	
a.	Semesters the course is being offered: (Check the box and enter the year)	<input type="checkbox"/> Fall <input type="checkbox"/> Spring <input type="checkbox"/> Summer
b.	Type of Study:	<input type="checkbox"/> Laboratory Study <input type="checkbox"/> Field Study <input type="checkbox"/> Both Laboratory & Field Study
c.	Instructor:	



S3	Describe the specific aims of the study; provide a description of the experimental design and a brief description of the methodology to be used (give sufficient detail for the IACUC to address animal welfare concerns). Include a brief statement regarding the benefits of this study.

S4.	Check list of other forms that must be completed: <i>(A Yes answer to any question below requires completion of a schedule relating to that question. A No answer requires no further action)</i>	
a.	Will a surgical procedure be performed on the animal?	<input type="checkbox"/> Yes, complete Schedule B – Surgical Procedures <input type="checkbox"/> No
b.	Will the study include the use of biohazards, such as infectious pathogens, carcinogens or other toxic materials, or recombinant DNA, to be administered to live animals?	<input type="checkbox"/> Yes, complete Schedule C – Biohazard Materials <input type="checkbox"/> No
c.	Will the procedure involve the use of non-surgical injections or anesthesia/analgesia?	<input type="checkbox"/> Yes, complete Schedule D – Non-Surgical Injections <input type="checkbox"/> No

S5	Will the animals require special housing or care? <input type="checkbox"/> Yes, complete a, b and c <input type="checkbox"/> No						
a.	Animal Species Inventory Information:						
	Species	Strain	On-Campus location	Field Location	Animal Age	# Animals Housed	
						Daily	Yearly
(1)							
(2)							
b.	Describe below special caging, care, diet, housing, etc.						
c.	Describe below special animal restraints other than routine caging and handling.						

S6	Animal Use Summary: <i>Identify the species and total number of animals to be used in this study. Provide justification for the use, choice of species and total number of animals.</i>			
	USDA Categories are defined as: C: No Pain/distress and no use of pain relieving drugs; D: Pain/distress for which anesthetic, analgesic or tranquilizing drugs used; and E: Pain/distress for which the use of anesthetic, analgesic or tranquilizing drugs are withheld due to adverse effects on procedures, results or interpretations			
	Species	Number	USDA category	Justification for choice of species and number used
(1)				
(2)				

S7.	Does working with the animals pose a health risk? <input type="checkbox"/> No <input type="checkbox"/> Yes – describe below, including those precautions to be taken to minimize the risk.

S8.	State below the arrangements for procurement of animals:

S9	What criteria will be used to assess pain, discomfort or distress?
	What steps will be taken to enhance animal well being?

S10	Under what circumstances would animals need to be disposed of before the end of the experiment? Describe the procedures that would be followed, including the names of personnel, other than the primary investigator.

S11	Describe how animals used in the research project will be disposed of at the end of the experiment.
	<input type="checkbox"/> Euthanasia; Briefly explain the procedures to be followed, including the names of personnel, other than the primary investigator, authorized for this procedure:
	<input type="checkbox"/> Release; Briefly explain the procedures to be followed, including the names of personnel, other than the primary investigator, authorized for this procedure:
	<input type="checkbox"/> Other Disposal; Briefly explain the procedures to be followed, including the names of personnel, other than the primary investigator, authorized for this procedure:

S12	What is the justification for using vertebrates in lieu of other organisms?
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<p><b><u>My signature below indicates that I will comply with the procedures and methods outlined in the NIH Publication 85-23, Guide for the Care and Use of Laboratory Animals, as well as PHS policy, the Animal Welfare Act and applicable University policies.</u></b></p> <p><b><u>I will seek approval from my course instructor before making significant changes in the number of subjects or experimental design as presented in tis protocol. I will notify my course instructor of any unexpected adverse affects on the animals.</u></b></p>	
Signature of Student Investigator	Date
Signature of Student Investigator	Date
Signature of Student Investigator	Date

<p>I have reviewed and approved this Student Research Project. IACUC approval of this project is covered by IACUC#: _____, based on submission of a Classroom Study Standard Form (IACUC-CLASS).</p>	
Signature of Principal Investigator	Date

# **Occupational Health Program**

## **Overview**

United States Department of Agriculture requires Fitchburg State University (Fitchburg State) to have an effective program for the care and use of animals used in research, whether funded or unfunded. As part of that program, the regulations further require the university to have an effective occupational health and safety program for all individuals who handle animals or animal tissue. Participation in Fitchburg State's Occupational Health Program is thus mandatory for all faculty, staff, students and volunteers who work in University laboratory animal facilities or conduct research with animals or animal tissues. The purpose and goal of the Occupational Health Program is to identify, evaluate, manage, and reduce potential health risks associated with the care and use of animals at the institution. Medical surveillance is a critical component of effective occupational health programs and involves the evaluation of health risks associated with an individual's exposure to animals and hazardous agents. The initial evaluation establishes a baseline of an individual's health and potential exposure risks. Subsequent annual updates and periodic reviews are then performed to assess an individual's changing risks. In many cases, an initial evaluation and risk assessment is all that is necessary. For some individuals, however, a clinical examination and vaccination(s) may be required as well.

## **Participation**

As noted above, participation in the Occupational Health Program is mandatory for all staff, employees, student workers and volunteers who handle animals or animal tissues used in research at Fitchburg State. An individual has successfully met this requirement when he/she is enrolled in the Occupational Health Program (see below) and has received either:

- a risk assessment that indicates no medical evaluation is necessary; or
- a risk assessment that indicates a medical evaluation is necessary and he/she has received the evaluation and any required interventions such as immunizations.

## **Enrollment**

Individuals with animal or animal tissue exposure enroll in the Program by completing an initial occupational health survey questionnaire. Students whose exposure to animals is limited to classroom activities only, however, are not required to enroll. Members of the University's Institutional Animal Care and Use Committee (IACUC) who will perform facility inspections must also be enrolled.

## **Annual Updates**

Faculty, staff, student and volunteer animal handlers are required to review and update as needed their occupational health registry information annually. Faculty, staff and student employees will receive an email notification and instructions when it is time to complete their annual review.

Any changes in species used, in the number of hours of animal contact, in health events of the animal handler and in exposure to other chemical and biological agents should be included.

An animal handler will fulfill his/her annual occupational health requirements when he/she has received either:

- a notice indicating that the application has been reviewed and no changes were indicated.
- a risk assessment that indicates no medical examination continues to be necessary; or
- a risk assessment that indicates a medical evaluation is necessary and he/she has received the evaluation and any required interventions.

## Clinical Evaluations

Clinical evaluations consist of a baseline medical evaluation and/or medical examination and provision of any required vaccinations. Health Alliance provides evaluations and other medical services for faculty and staff. The minimum levels of Program participation beyond the initial and annual questionnaire are as follows:

- **Category 1** - Individuals working with rodents, rabbits, guinea pigs, and other small non-wild caught animals for less than five hours a week, and those working with amphibians, fish, reptiles and arthropods are considered to have minimal risk. EHS will contact the individual with instructions for any needed clinical evaluation if other occupational exposures [e.g., chemical or biological agents] are identified on their occupational health registry questionnaire.
- **Category 2** - Individuals working with rodents, rabbits, guinea pigs, and other small non-wild caught animals for more than five hours a week. EHS will contact the individual with instructions for any needed clinical evaluations.
- **Category 3** - Individuals working in proximity to wildlife. EHS will contact the individual with instructions for needed clinical evaluations.

The types of medical monitoring and prophylactic treatments specified for each category are based on the risks associated with various categories of animal exposures. Additional occupational exposures to hazardous materials [e.g., carcinogens, highly toxic chemicals, infectious agents] may require additional medical surveillance requirements.

If at any time an individual experiences a change in their health status or a change in their level of animal exposure, he/she should update their information by submitting a new annual update form. Women who are pregnant or plan to become pregnant should immediately contact EHS. Personnel who work with animals and have chronic medical conditions are asked to disclose these conditions to Health Alliance. Such conditions can increase the risk or severity of animal exposure. These conditions will be evaluated as part of the mandatory health evaluation. Concerns and symptoms of inhaled and contact allergies to lab animals should be reported as soon as they are noted.

## **Injury or Illness**

Individuals, who experience an injury or illness related to working with animals, must report the event to their supervisor or Principal Investigator (PI). If medical treatment is needed, Health Alliance located at 60 Hospital Road, Leominster, MA 01453 should be used.

## **Faculty, Staff, and Student Responsibilities**

- When notified that a clinical evaluation is required, a faculty, staff, or student animal handler must be seen by Health Alliance as soon as possible to retain her/his access to animal facilities and continued authorization to use animals in research.
- Failure to complete the clinical evaluation at Health Alliance will lead to suspension of an animal handler's facility and animal access and/or revocation of IACUC protocol approval.

## **Institutional/IACUC Responsibilities**

The IACUC has the responsibility to verify that individuals are enrolled in the Occupational Health Program before they are allowed to work with animals. Individuals will not be granted access to animal areas until they are enrolled in the Program. If individuals associated with a new project proposal are not enrolled, the project proposal will not be approved by the IACUC. If individuals associated with an ongoing proposal are not enrolled, they will be asked to cease work until enrolled. In the case of ongoing failure to enroll, the IACUC will consider suspending approval of a proposal.

# Fitchburg State University Animal Care Program Occupational Health Survey

**NOTE:** This must be completed prior to working with animals and when any changes in medical conditions or animal exposure intensity occur.

Name: (Last) \_\_\_\_\_ (First) \_\_\_\_\_

Campus/home Mail Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Cell Phone #: (\_\_\_\_\_) \_\_\_\_\_ E-mail Address: \_\_\_\_\_

Department: \_\_\_\_\_

Birth Date: \_\_\_\_\_ Sex: ☐ M ☐ F

Ethnicity: ☐ White/Caucasian ☐ Black ☐ Asian ☐ Indian ☐ Hispanic ☐ Other \_\_\_\_\_

Personal Physician: Name: \_\_\_\_\_ Telephone number: \_\_\_\_\_

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## Area where handling animals:

- ☐ Animal Facility ☐ Classroom only  
☐ Field Only ☐ Other \_\_\_\_\_ (please specify)

## Status (check all that apply):

- ☐ Faculty/staff ☐ Undergraduate student ☐ Graduate student  
☐ Other: \_\_\_\_\_ (please specify)

**Please check all circumstances that apply.** ("Contact" means direct handling or care)

- ☐ Contact with invertebrate animals. Specify: Common name: \_\_\_\_\_  
☐ Contact with vertebrate animals. Specify: Common name: \_\_\_\_\_  
☐ Contact with animal tissues/fluids not treated with chemical preservatives.  
☐ No direct animal contact, but working in the same facility with animals or their non-preserved tissues.

Estimate animal contact time in **hours per week:** \_\_\_\_\_

Estimate non-animal contact time in **hours per week:** \_\_\_\_\_

## Have you had a tetanus booster in the past 10 years?

- ☐ Yes (attach documentation if record is not in the medical record of the examining physician. Health Services has the tetanus record from admission files for current students)  
☐ No (Current tetanus required).

## **Rabies Vaccine**

**NOTE:** Rabies vaccination is recommended for individuals working with wild caught mammals only (e.g., Raccoons, Skunks, Bats, Ferrets, other flesh eating carnivores that do not receive rabies vaccination. Rabbits and rodents do not normally carry the rabies virus.):

☐ **Does not apply.** I will not be working with wild caught mammals.

☐ **I have previously been vaccinated against Rabies:**

Date of Dose 1: \_\_\_\_\_ Date of Dose 2: \_\_\_\_\_

Date of Dose 3: \_\_\_\_\_ Date of most recent titer: \_\_\_\_\_

Name of administering physician or clinic: \_\_\_\_\_

☐ **I would like to be vaccinated against Rabies by Health Alliance.** I understand that this vaccine will be provided free of any charge to me. (Access to the pre-exposure vaccine for rabies virus has been restricted by the CDC due to a disruption in the global supply. Vaccination will be provided as vaccine is available through the CDC approval system.)

☐ **I would like to be vaccinated against Rabies by the physician or clinic of my choice.** I understand that I will be responsible for any charges incurred for obtaining this vaccine.

☐ **I am declining to be vaccinated against Rabies.** I have received a copy of the Center for Disease Control and Prevention's Vaccine Information Statement regarding the rabies vaccine, as indicated by my initials here: \_\_\_\_\_. This handout explains the risks and benefits of receiving the vaccine. I have been given the opportunity to be vaccinated free of charge, but I am declining the vaccination at this time. I will immediately report any bite, scratch or similar contact with a wild mammal and seek appropriate medical treatment. I hereby agree to hold harmless Georgia Southern University and its employees, agents, members or officers from any liability for damages of any kind resulting from my failure to obtain a rabies vaccine at this time.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## **Medical History**

**Do you have any current medical problems?** ☐ Yes ☐ No

If yes, explain. \_\_\_\_\_

**Do you have any chronic medical problems?** ☐ Yes ☐ No

If yes, explain. \_\_\_\_\_



**Have you had any of the following?** (Check all that apply and **indicate when**)

- ☐ Pneumonia      ☐ Restriction on lifting limit \_\_\_\_\_ Specify lbs  
☐ Recurrent Bronchitis      ☐ Arthritis      ☐ Chronic Back or Joint Pain      ☐ Heart Disease  
☐ Carpal Tunnel Syndrome or Repetitive Motion Injury

**Allergy History:**

**List all medications that you are presently on.** (Especially all asthma/allergy medications including inhalers): ☐ none

\_\_\_\_\_

\_\_\_\_\_ (press enter to add more lines)

**List any allergies to medications:** ☐ none

\_\_\_\_\_

\_\_\_\_\_ (press enter to add more lines)

**Do you have any of the following symptoms or conditions?** (Check all that apply that **are not associated with a cold.**)

- ☐ Chronic cough      ☐ Asthma  
☐ Skin rash      ☐ Chronic allergies (food, mold, dust)  
☐ Runny nose, sinus congestion      ☐ Itchy, irritated eyes  
☐ Shortness of breath/wheeze      ☐ Hay fever or other environmental seasonal allergies (pollen)  
☐ None

**Are you allergic to any of the following?** (Check all that apply)

- ☐ Mice      ☐ Rats      ☐ Rabbits      ☐ Raptors/Birds  
☐ Weeds      ☐ Trees      ☐ Grass      ☐ Latex  
☐ Food      ☐ Pollen      ☐ Other: \_\_\_\_\_  
☐ Dogs      ☐ Cats

☐ None

☐ I would like to be seen by the medical staff.

**Please be informed that certain medical conditions increase your risk of potential health problems when working with animals, these can include: animal-related allergies, chronic back injury, pregnancy and immunosuppression. If any of these conditions apply, inform your personal physician/health care professional of your work.**

**Other conditions:** \_\_\_\_\_

**I agree to have the above information reviewed by the appropriate party listed on the next page. If I have taken this document to my personal physician, I understand that I am responsible for all associated costs:**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

**FACULTY, STAFF, STUDENT WORKER** Bring or send the completed form to Health Alliance (no charge) or your personal physician (you are responsible for any associated costs). You will be contacted if an appointment is required.

**Health Alliance Hospital  
60 Hospital Rd Leominster, MA 01453  
(978) 466-2000**

**This questionnaire will become part of your medical record at the clinic. Only the next page should be sent to the IACUC office.**

Office Use Only:

## Clearance Recommendation Page

### Patient's Consent and Authorization

*(Note to medical staff – This page only should be returned to Fitchburg State IACUC Compliance Office 160 Pearl Street, Fitchburg, MA ... The remainder of this document should remain in the patient's medical record at the medical facility)*

I consent to and authorize \_\_\_\_\_ to release my approval status for work with animals and any applicable restrictions to Fitchburg State University Institutional Animal Care and Use Committee and my supervising investigator. I understand this consent is revocable except to the extent action has already been taken. Authorization is not valid beyond one year from date of signature. Further disclosure or release of my health information is prohibited without specific written consent of person to whom it pertains.

Print Patient name:	
Patient's signature	Date

### Physician's Recommendations (Choose one from each table)

(Choose one from table 1)

	I am not aware of any contraindications toward participation in Animal Care or Handling.
	Physical examination required for determination. Please make an appointment.
	I believe the applicant can participate in animal care or Handling with the following restrictions
	I recommend the applicant <b>not</b> participate in Animal Care or Handling.

(Choose one from table 2)

	Re-evaluation required when any changes in medical conditions or animal exposure intensity occur	
	Re-evaluation required annually	
Practitioner's signature		Date:
Practitioner's name (print)	Phone:	Fax:
Clinic Address	City: Statesboro	State & Zip

Send **this page only** to Fitchburg State University IACUC Compliance Office

**IF YOU ARE FACULTY, STAFF OR STUDENT WORKER** please send a completed copy of this form to the Community Nursing Clinic. You will be contacted if you need to make an appointment for a physical (no cost) or take this form to your personal physician (you are responsible for any associated costs Bring the completed or partially completed form (clinician will assist in completing as needed prior to physical exam) at the time of your physical examination appointment.

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