

**THE UNIVERSITY OF SOUTHERN MISSISSIPPI
ANIMAL CARE AND USE HANDBOOK
Revised October 17, 2005**

I. The University of Southern Mississippi IACUC Membership	
A. Composition of IACUC	3
B. Roles and Responsibilities	3
II. Roles and Responsibilities of Principal Investigators	
A. Serving as a Principal Investigator on an Animal Protocol	4
B. Principal Investigator Responsibilities	4
C. Research Team	5
D. Types of Research and Associated Protocol Requirements	5
1. Use of Live Vertebrate Animals	
2. Use of Procured Tissue or Preserved Vertebrates	
3. Exempt Animal Use	
4. The Use of Animals in Teaching	
E. New Principal Investigators	6
1. Before Arrival	
2. Upon Arrival	
III. IACUC Protocol Preparation and Review	
A. Preparing a Protocol for IACUC Review	7
1. What Should Be Addressed in a Protocol?	
a. The University of Southern Mississippi IACUC Pain Code Classification	
b. Justifying the Number of Animals	
c. Anesthesia	
d. Analgesia	
e. Surgery	
f. Physical Restraint	
g. Food or Fluid Restrictions	
h. Documentation/Records	
B. How Protocols Are Reviewed	9
1. How Long the Review Takes	
2. Process for the Initial Review of Research Involving the Care and Use of Animals	
a. Research Investigator Completes a Protocol Approval Form	
b. Routing by the IACUC	
c. Designated Member Review	
d. Full IACUC Review	
1) Approve	
2) Withheld Pending	
3) Denial	
e. Granting Agency Requirements and Protocol Submission	
f. Questions and Appeals	

THE UNIVERSITY OF SOUTHERN MISSISSIPPI INSTITUTIONAL ANIMAL CARE AND USE (IACUC) HANDBOOK

I. The University of Southern Mississippi IACUC Membership

A. Composition of IACUC

The composition of the IACUC conforms to the overlapping, yet distinctive, requirements of the USDA and the PHS. The Committee is composed of at least five members appointed by the Institutional Official, in this case the Vice President for Research and Economic Development, and includes the following:

- One member is the Veterinarian of Record.
- One faculty member that is a non-scientist.
- At least one public member represents community interests. The public member(s) is not a laboratory animal user, is not affiliated with the institution, and is not a member(s) of the immediate family of a person who is affiliated with the institution.
- There is at least one practicing scientist experienced in research involving animals.
- Not more than three members are from the same department.
- Ex officio non-voting members of the committee include the Director of Animal Facilities, the JST Animal Facilities Manager, a representative of the Sponsored Programs Administration, and the IACUC administrative assistant.

Each member is appointed for three years and may serve consecutive terms. The IACUC reports directly to the Institutional Official.

B. Roles and Responsibilities

The IACUC is responsible for reviewing all research in which animals serve as research subjects as well as the use of animals in teaching. IACUC oversight covers all use of live animals in research and teaching, whether in the laboratory or in the wild as a part of field research. Once approved, the IACUC maintains continuing oversight of the approved projects on an on-going basis and requires an annual review and a complete resubmission on a triennial basis to both comply with the re

- Inspection of facilities where animals are housed or animal work is done;
- Review and make recommendations regarding any aspect of the University's animal care program;
- Ensure the University's compliance with federal, state, and local regulations pertaining to animal use;
- Set general University of Southern Mississippi policy on humane care and use of laboratory animals;
- Prepare the annual OLAW assurance update, semiannual inspection reports, and assistance in preparation of the "Annual Report of the Research Facility" which is submitted by the Institutional Official to the USDA.

Although the IACUC functions to ensure that animals are utilized in a humane fashion, the responsibility for this rests with those individuals performing the research, the principal investigator and staff. The IACUC serves an important function 1) to ensure the care and well being of research animals, and 2) to safeguard a biomedical researcher's privilege to use animals by protecting the principal investigator and the institution. The Committee is dedicated to maintaining an open dialogue with investigators to achieve these goals, and it is the Committee's hope that investigators will see it as a resource for this purpose.

- Submitting any changes to the protocol for approval and initiating changes only after IACUC approval is received. Investigators should note that failure to comply with federal, state, or local regulations on animal use or with university and IACUC policies and procedures may result in suspension of the approved protocol and notification sent to the regulatory agencies and PI funding agencies. Equally important as the result of such a violation to an individual PI, such failure can also jeopardize the University's Animal Welfare Assurance on file with NIH and may lead to revocation of PHS research funding, as well as monetary fine

Southern Mississippi. However, the University of Southern Mississippi requires a copy of the protocol and approval letter from the other institu

- Completing the basic training module and all other training relevant to the facility or

appropriate anesthetic, analgesics or tranquilizing drugs are not used. If all or a percentage of animals will experience either category II or III, the PI must complete the appropriate appendix to document that alternatives to painful or distressful procedures in animals have been considered.

b. Justifying the Number of Animals

The IACUC has a responsibility to ensure that the number of animals used is the minimum number that is sufficient to achieve the scientific or teaching aims. Toward that end, the protocol asks that PI's justify the number of requested animals in detail. Numbers should be based in a statistically valid power analysis or other specific justification. Investigators may not use more animals than the number approved by the IACUC. As part of its review process, the IACUC considers the appropriateness of the proposed animal numbers for the work proposed. PI's are expected to limit the number of animals to the smallest number which allows meaningful conclusions to be drawn from the research. *In cases such as field research where the PI cannot provide precise numbers or species lists, an appropriate justification should be made including estimates.*

c. Anesthesia

The protocol should outline in detail any proposed anesthesia (type of anesthesia, rate of administration, dosage, timing). The Animal Facilities manager can provide assistance to PI's in determining the most appropriate anesthetic regimen for the species and for the type of procedures. Anesthesia of laboratory animals is an art as well as a science. It is also a serious responsibility. Significant animal pain and distress can result from

animal does not awaken. Nonsurvival surgery must meet applicable standards (e.g., clean instruments, surgeon appropriately garbed, in a suitable environment). Survival surgery, where the animal recovers from anesthesia, must follow strict standards for aseptic technique and can only be conducted in a suitable environment approved for survival surgery. It is essential that individuals performing surgical procedures be well trained to minimize animal pain and to ensure success of the procedure. Appropriate animal and surgeon preparation, aseptic technique, suitable environment, proper instruments, and knowledge of tissue handling and suturing are all essential components of good surgery. Individuals who need additional training in surgery should contact the IACUC consulting veterinarian. The JST Animal Facilities Manager also can provide training materials on the subject of aseptic surgical techniques.

f. Physical Restraint

Physical restraint may be a requirement of the research. However, such restraint must be made as painless as possible for the animals, should be of as short a duration as practicable and should utilize the most animal-friendly restraint system possible. The need to restrain animals should be fully described and justified in the protocol. Justification is particularly important if the restraint is of a long duration or the restraint

2. Process for the Initial Review of Research Involving the Care and Use of Animals

2) Withheld Pending

Protocols with a review status of “withheld pending” are most typically in need of minor corrections or clarifications. The Chair will write a letter to the Principal Investigator indicating that approval for the protocol is being withheld pending certain minor revisions that must be made to the protocol. The Principal Investigator will be invited to submit these revisions directly to the IACUC Chair.

3) Denial

Research protocols might be denied because:

- The protocol is overly confusing or convoluted and not understood by the IACUC (e.g., poorly written or excessive technical language or jargon);
- Procedures described are not considered acceptable according to current standards and justification made was not sufficient to endorse deviation.
- The Principal Investigator has not convinced the IACUC of his or her capacity (training and experience) to conduct the proposed research; or
- The methods being proposed are clearly inadequate for the research.

A protocol may also be administratively denied when a Principal Investigator has not responded to a request for additional information and/or modifications from the IACUC in a timely fashion (30 days).

e. Granting Agency Requirements and Protocol Submission

Many agencies such as NIH, NSF, DOD and the American Heart Association will not review protocols involving animals unless formal notification of IACUC review and approval has been provided. Other agencies may review and score protocols, but they will withhold funding pending notification of IACUC review and approval is received. PI's are urged therefore to submit the IACUC protocol prior to the submission of a grant application. It is critical that the protocol must reflect all proposed animal use detailed in the corresponding grant application.

f. Questions and Appeals

Any PI may request an appointment with the IACUC Chair, or an opportunity to address the IACUC at a regular or special meeting, for any purpose related to the business of the IACUC. The two most common reasons for such an appointment or hearing are to answer questions concerning protocols in development or research in progress, or to resolve difficulties related to the approval of a protocol. Concerns should be brought to the IACUC Chair. If resolution cannot be reached with the Chair, the Principal Investigator may be scheduled to present his/her case before the IACUC at the next regular meeting or at a special meeting called by the Chair (if the situation warrants). There is no appeal to a decision by IACUC to deny a protocol.

IV. Changes to Approved Protocols

A. Making Modifications to Approved Protocols

In approving a protocol, the IACUC has indicated that the animal use protocol is consistent with the regulations and standards. **Any change to the approved protocol must be submitted as an amendment to the IACUC and approved prior to instituting the change.** Such a request must be in writing and may be in the form of a simple letter detailing the reasons for the modification and the proposed modification. This letter and any supporting documents (such as changes to instruments or informe

Although an approved protocol is limited to no more than three years, each protocol must be updated and reviewed "not less than annually".

B. Annual Protocol Status Reports

To comply with the regulations that are outlined in the USDA Anim

or non-compliance. Should this occur, the IACUC Chair will notify, verbally and in writing, the Principal Investigator, their department Chair or unit supervisor, and the Institutional Official that the research has been temporarily suspended.

Suspension of research activities, during which no research involving animals ma

use. In this regard, it is critically important that the institution and its community demonstrate the ability to police itself. Consistent with its commitment to humane animal care and use, the University encourages anyone who perceives a problem with the way in which animals are housed, handled, or used in research or teaching to report their concerns. This includes the use of animals in ways that differ from the approved protocol. Such matters may be discussed with the individual's supervisor, the consulting veterinarian of the facility, the animal facilities manager, the IACUC Chair, the IACUC members, department chairs, or the Institutional Official. Information on contacting these individuals is available in the USM telephone book. Reports may be made anonymously. The IACUC will investigate complaints and take appropriate actions as necessary to alleviate the problem. Animal-related emergencies should be reported immediately to the animal facilities manager or the veterinarian.

VIII. IACUC Member Training

All members of the IACUC receive training upon joining the committee. They are expected to attend a training session offered by the IACUC Chair or an IACUC member designated by the Chair. In addition, new members are expected to familiarize themselves with the regulations, with IACUC and Sponsored Programs Administration policies and procedures, and by completing other training sessions as appropriate. In addition, IACUC members receive training in specific areas of animal care and use through the monthly IACUC meetings and through discussions of policy, procedure or scientific issues. All members are encouraged to attend IACUC training workshops sponsored by Scientists Center for Animal Welfare.

Acknowledgements: We are grateful to Mr. Bruce Deason of the Illinois State University Research and Compliance Office for permission to adapt portions of the ISU IACUC Handbook.