

THE UNIVERSITY OF TULSA
INSTITUTIONAL ANIMAL CARE AND USE APPLICATION FORM

Federal Regulations (Public Health Service, National Institutes of Health, and the United States Department of Agriculture) and policies of several other granting agencies require review and approval of research, instruction, and testing proposals that involve the use of live vertebrate animals.

The information provided on this form will be reviewed by the TU Institutional Animal Care and Use Committee (IACUC). If approved by the IACUC, the protocol will be assigned a number. Please use the protocol number when addressing correspondence regarding the protocol. Be advised that approval provides official permission to conduct only those procedures described on the protocol. Any changes or revisions to this protocol must be approved by the TU IACUC.

PLEASE TYPE and complete all the applicable sections. Furnish information for each animal species to be utilized. Submit this form to the TU IACUC Administrator/Coordinator of Research Compliance. Submit one copy of the grant or experimental proposal if applicable.

Following are points of information to assist you.

I. LD₅₀ STUDIES: If LD₅₀ studies are performed, please provide justification when more than five male and five female animals per substance per dose will be used.

II. PAIN & DISTRESS CATEGORY:

The primary concern of the IACUC is the degree of pain and/or distress imposed on the animals, and the methods the investigators will use to prevent, relieve, or minimize any suffering.

a. General Definitions

The American Physiological Society has defined stimuli as painful to animals if those stimuli:

1. are detected as pain in humans
2. approach or exceed tissue damaging proportions
3. produce escape behavior in animals

("Animal Pain: Perception and Alleviation." Kitchell, R.L., Erickson, H.H., Carstens, E. and Davis, L.E., editors. Am. Physiol. Soc. 1983, Williams and Wilkins, Baltimore).

The following is a partial list of procedures known to involve significant pain and/or distress:

1. surgery, including biopsy and gonadectomy
2. burning, freezing, branding
3. fracturing bones
4. intracardiac or periorbital blood collection

b. There are three categories to choose from. The following describe each category.

A. NONE OR MINOR

Procedures which are considered to produce minimal, transient, or no pain or distress when performed by competent individuals. These include chronic studies that DO NOT involve survival surgery, induction of painful or stressful disease conditions, or pain or distress in excess of that associated with routine injections or blood collection. Included are induction or transplantation of tumors in animals (so long as the tumors do not cause pain and the animals are terminated prior to becoming serious ill), administration of mildly toxic substances or drugs that cause no significant disease or distress, and antibody production (antigen inoculations and blood collection) as long as significant disease does not result.

B. EXPERIMENTS INVOLVING PAIN AND/OR DISTRESS WITH ANESTHESIA/ANALGESIA

If you plan to conduct studies which involves any of the procedures defined in (a) above or any other procedure which in your estimation involves significant pain and/or distress, the animal must be given appropriate anesthetics or analgesics to prevent or alleviate pain (tranquilizers for distress).

C. PAIN WITHOUT ANESTHESIA/ANALGESIA

If the nature of the study prohibits the use of pain and/or stress relieving drugs, or if unavoidable and unalleviable pain or distress will be produced, you must provide a written justification. These include: direct stimulation of CS pain tracts, nociceptor stimulation by physical or chemical means that cause severe pain (e.g., corneal abrasions), or any category (see above) procedure if performed without chemical relief of pain.

III. FOOTPAD INJECTIONS: Injection of materials into footpads of rabbits and rodents is often very painful and results in moderate to severe lameness. When complete Freund's Adjuvant is used, the local lesions and lameness are usually severe because the animal becomes sensitized to mycobacterial proteins and subsequent injections exacerbate the foot lesions. The chronic discomfort and local infection often cause clinical illness which is slow to respond to treatment. When animals are immunized, consideration should be given to injecting material in sites other than the food pads.

IV. ANESTHETICS/ANALGESIA: If you will be administering anesthetics or analgesic agents to animals, please explain the specific details in the procedures section (#6). State the specific agent or agents, route of administration, dosage, procedures to monitor the depth of anesthesia and any pre-anesthetic procedures (e.g., fasting, pre-anesthetic drugs, etc.). State whether or not you will use a paralytic agent. Be advised that paralytic agents are not anesthetics and paralytic agents can only be used to anesthetized animals.

NOTE: Submit forms A and/or B only if needed.

The University of Tulsa
Institutional Animal Care and Use Application Form

Date of Submission: _____ Protocol Number (assigned by TU IACUC): _____

1. GENERAL INFORMATION

Principal Investigator: _____

Protocol Title: _____

Time period of project: Begin: _____ End: _____

University Title: _____ E-Mail Address: _____

Department: _____ Phone: _____

Address (if not at TU): _____

List ALL other personnel involved who will be handling, caring for or working directly with the animals: co-Investigators, Lab Technicians, etc.:

General Purpose of Project (check all that apply) Basic Procedure (check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Research Project | <input type="checkbox"/> Blood/Tissue Collection |
| <input type="checkbox"/> Pilot Project | <input type="checkbox"/> Surgical Lesion |
| <input type="checkbox"/> Teaching Project | <input type="checkbox"/> Pharmacological |
| <input type="checkbox"/> Student Special Project | <input type="checkbox"/> Behavioral |

Special Considerations (check all that apply and describe in #6):

- Survival Surgery (If yes, complete Form A)
- Hazardous Agents or Radioisotopes. If yes, identify agent _____, complete Form B)
- Anesthetics
- Restraint Devices
- Complete Freund's Adjuvant
- Breeding Colony (If yes, include Breeding Colony Application [see Research Office])

P.I.: _____

2. FUNDING (Current and Pending)

A. Extramural Funding (federal/state/private) N/A

*When more than one funding source is solicited, a single application may be submitted for approval provided species, number, and procedures are compatible.

If this is a new award, have you submitted a proposal? Yes No N/A
(If so, please include a copy of the full proposal with this application form)

Sponsor/Agency Name and award number (if any):

Grant Title (if different from above): _____

PI of Grant: _____ Begin/End Dates: _____

B. Internal Funding (university/college/dept./start-up funds) N/A

Funding Source: _____ Begin/End Dates: _____

3. SCIENTIFIC MERIT

(Briefly explain the scientific merit of your proposal to justify the use of animals to any reasonable and well-informed lay person. This should include your project's relevance to human or animal health and/or the advancement of knowledge. Include the rationale for the choice of species and number of animals used. Limit your response to the space below)

P.I.: _____

4. ANIMALS TO BE USED

Species _____ Strain _____
Vendor _____
per year _____ Weight _____ Age _____

Species _____ Strain _____
Vendor _____
per year _____ Weight _____ Age _____

Species _____ Strain _____
Vendor _____
per year _____ Weight _____ Age _____

Species _____ Strain _____
Vendor _____
per year _____ Weight _____ Age _____

Species _____ Strain _____
Vendor _____
per year _____ Weight _____ Age _____

Species _____ Strain _____
Vendor _____
per year _____ Weight _____ Age _____

Describe any special housing needs: (light cycles, temperature, isolation, cage & bedding, etc)

Will off-campus facilities be used? Yes No

If yes, provide address and assurance that the facility is routinely inspected by appropriate personnel

P.I.: _____

5. PAIN/DISTRESS CATEGORY

(Give number of animals in each category - A, B, or C. See cover page. Please make sure it matches the number of animals stated in #4 above.) If any animals are placed under category C, attach a written justification to the protocol.

6. DESCRIPTION OF PROPOSED USE OF ANIMALS

(Describe all experimental procedures to be used involving animals. Attach a separate sheet if necessary. Please be specific.)

P.I.: _____

7. QUALIFICATIONS

(The Animal Welfare Act requires that all personnel involved in the care, treatment and use of animals be qualified to perform their duties. Please provide information which indicates that you and others involved on this project are qualified to perform the procedures described in #6 above.)

P.I.: _____

8. VETERINARY CARE INVOLVED

9. PROCEDURES WHICH MAY INVOLVE UNAVOIDABLE STRESS

10. EUTHANASIA

*Note: The AVMA *Guidelines for Euthanasia* disallowed the use of dry ice as a means of generating carbon dioxide vapor for euthanasia. This prohibition was maintained in the latest version of the AVMA document. The TU IACUC is obligated, therefore, to assure that carbon dioxide used for euthanasia is provided by compressed gas in cylinders or another acceptable source.

____ A. Inhalant agents (Please provide specific agent and route of administration.)

____ B. Injectable Agents (Please provide specific drug, dosage, and route of administration.)

____ C. Physical Methods

____ Cervical dislocation (animals <200 grams)

____ Decapitation with guillotine

Will animals be sedated/anesthetized during cervical dislocation and/or decapitation?

Yes No

If no, provide scientific justification for performing this procedure without sedation/anesthesia (e.g. interference with specific experimental parameters).

____ D. Exsanguinations (Method to be used only in anesthetized animals.)

____ E. Other Method (Describe)

P.I.: _____

12. COMPLIANCE STATEMENTS

I agree to abide by the TU policies for the care and use of animals as outlined in the provisions of the NIH Guide to the Care and Use of Laboratory Animals, and all federal, state, and local laws and regulations governing the use of animals in research, teaching, and testing.

I understand that emergency care and treatment will be administered to animals if needed, in addition to routine veterinary care.

I declare that all experiments performed on live animals will be performed under my supervision or that of another qualified biomedical scientist listed in this proposal.

I assure that personnel with animal or animal tissue contact have been informed of safety and risk hazards and have met all the requirements to work with animals at The University of Tulsa.

I further declare that the information given in this protocol is accurate to the best of my knowledge. Any proposed revisions to this protocol should be forwarded to the TU IACUC Administrator/Coordinator of Research Compliance for approval including changes in personnel and location.

I have read and understand the above statements.

P.I. Signature: _____

APPROVAL:

TU IACUC Chair

P.I.: _____

Protocol Number (assigned by IACUC): _____

FORM A

SUPPLEMENTAL SHEET FOR ALL ANIMAL USE APPLICATIONS INVOLVING SURVIVAL SURGICAL PROCEDURES

PROTOCOL #: _____

SPECIES: _____

Enter all names as applicable:

Surgeons:

Anesthesiologists:

Assisting Surgeons:

Technicians:

For Survival Surgical Studies

Describe any potential or expected post-operative complications (e.g. sepsis, acute failure) and procedures to identify, assess and manage these problems.

Describe long-term care of any chronically instrumented animals:

Person responsible for post-operative care: _____

At this point, be sure that all items (#6, 7, 8, and 9) relating to pre- and post-operative care under "Surgical Procedures" have been addressed.

The University of Tulsa Veterinarian or Animal Care Technician should be consulted to assist with any post-operative complications.

Any procedural changes **must** be submitted as an amendment to the protocol for review and approval prior to initiating these changes. All personnel working in direct contact with animals on this project must be listed on the protocol and must complete a personal statement.

Principle Investigator Signature

P.I.: _____

Protocol Number (assigned by IACUC): _____

FORM B

ANIMAL EXPERIMENTATION INVOLVING HAZARDOUS AGENTS

Complete only if applicable to your project. If not, please remove from packet.

For applications using hazardous agents or radioisotopes, the research project must be registered with The University of Tulsa HAAZCOM Office prior to submission of this application.

Approved Authorization Number: _____

1. Study involves: _____ Radioactive Materials _____ Human, Plant, Animal Pathogens
 _____ Chemical Carcinogens _____ Recombinant DNA/RNA
 _____ Acute Toxins _____ Others

2. Identify Hazardous Agent(s) and animals or tissues used:
Animal/Tissue: _____
Agent: _____
Dosage or Amount Used: _____
Route: _____
Frequency: _____

3. Risks to: Animals: Yes No Humans: Yes No
If yes, describe the potential health risks to humans or animals:

4. Describe experimental procedures:

5. What is the duration of the study?

6. Describe special animal care required relating to the use of Harrods materials:

7. Describe special containment facility requirements:

8. Describe special precautions for animal handlers:

9. Describe waste and animal disposal requirements:

Principle Investigator Signature