

New Application () Renewal () (Original IACUC No. _____) IACUC Project No. _____

APPLICATION FOR THE CARE AND USE OF
LABORATORY ANIMALS AT MARSHALL UNIVERSITY

Name: _____ Title: _____
Department: _____ Campus Phone No.: _____
Co-Investigator: _____ Title: _____ Department: _____
Co-Investigator: _____ Title: _____ Department: _____

Title of Project/Course: _____

Type of Activity: Research () Teaching ()

Date of Project Period (limited to 3 years): _____

Funding Source: Internal _____ External _____ Agency _____

1. OVERVIEW AND RATIONALE OF PROTOCOL: The following information is required to assist the committee with evaluating the appropriateness of the animal model and procedures to be used. All questions must be answered. **Abstracts from grant application forms are not acceptable.** Use additional pages if necessary. **In the following space, provide a paragraph, telling in lay terms what you plan to do in this project. Be concise and respond in language understandable to a non-scientist.**

A. State the:

- 1) objective(s)
- 2) primary aim(s)
- 3) significance or scientific merit of this protocol.

B. State:

- 1) the rationale for using animals in this project

- 2) the justification of the animal model chosen
 - 3) the justification for the number of animals required. Address the number of animals used for control versus the number of experimental groups, if applicable.
- C. Describe how animals are to be used in this protocol, noting the general experimental design and all animal procedures to be conducted. Include specifics of special diet(s); injections-dosage(s), route(s) of administration, and material(s) injected/infused; collection of any fluid from the animal-the amount and frequency of collection; the administration of anesthetics, analgesics, or tranquilizers-route(s) of administration, frequency and dosages; any surgical procedures-non-survival or survival and post operative care; any special procedures; and information on what is to be done with tissues once removed from the animal. In short, everything that is done with an animal as part of this protocol must be described. For surgeries, please complete Surgical Procedures section. For hazardous agents, please complete Hazardous Agents section. Use additional page(s) if necessary.

2.

Animal Common Name	Total No. of Animals To Be Used for the Life of Project*	Discomfort, Distress, Pain Level**	Appropriate Pain Relieving Drugs Will Be Used (Yes/No)	Will Survival Surgery Be Conducted (Yes/NO)

*Total number of animals used will be monitored and investigator will be notified when the total number is being reached. When the total number is reached, no additional animals will be ordered unless justified by the investigator and approved by the IACUC

**See Appendix 1

3. Federal law requires a written statement for A. and B. below:
 - A. Provide a narrative describing the methods, and list the sources, that have been utilized to determine that suitable alternatives, both for painful procedures and the animal model requested, are not available. **Include in this narrative a list of all literature reviewed and all reference sources utilized (i.e. MEDLINE, AGRICOLA with date of**

the search, key words and dates searched; relevant journals, personal communication, meeting/seminar attended, etc.).

B. Provide written assurance that the activities do not unnecessarily duplicate previous experiments. **Include in this narrative a list of all literature reviewed and all reference sources utilized (i.e. MEDLINE, AGRICOLA with date of the search, key words and dates searched; relevant journals, personal communication, meeting/seminar attended, etc.).**

4. EUTHANASIA: Techniques for euthanasia shall follow current guidelines established by the latest AVMA Guidelines on Euthanasia. Other methods must be specifically reviewed and approved by the IACUC.

SPECIES	METHOD	DOSE (mg/kg body wt)	ROUTE

5.

NAMES OF INVESTIGATORS, TECHNICIANS, AND OTHERS HANDLING ANIMALS AT THE TIME OF APPLICATION (This list will be updated annually)	EXPERIENCE WITH THIS ANIMAL MODEL (Yrs)	MU TELEPHONE	EMERGENCY TELEPHONE

6. Specific location where animal research/teaching will be conducted: _____

7. If animals are taken from the ARF for research/teaching, will they be returned to the ARF?
 ___Yes ___No

8. OUTSIDE STUDY AREAS: Will animals be held in study areas outside of animal facility for more than 12 hours? Yes___ No___ If yes, list building and room number. _____

9. Outline any special requirements for caging, lighting, environmental control, diet, etc.

ASSURANCE FOR THE HUMANE CARE AND USE OF ANIMALS
FOR TEACHING AND RESEARCH

The information included in this IACUC application is accurate to the best of my knowledge. All personnel listed recognize their responsibility in complying with university policies governing the care and use of animals.

All the experiments, described in this application, involving live animals will be performed under my supervision or that of another qualified scientist. Technicians involved have been trained in proper procedures in animal handling, administration of anesthetics, analgesics, and euthanasia as described.

The following signatures signify assurance that the individual(s) will comply with the protocol described herein. **Any changes in the above protocol must receive approval of the IACUC prior to implementation.**

Principal Investigator Date
(signature)

Department Chairperson Date
or Authorized Individual
(signature)

Date Original Application Received

Date Original Application Reviewed

Recommendations of IACUC _____

Date Revised Application Received

Designated Reviewer Date
(signature)

Final Approval Date

Chairperson IACUC Date

APPENDIX 1

CATEGORIES OF PAIN

In the Application for the Care and Use of Laboratory Animals at Marshall University you are asked to classify the project according to the level of perceived pain or distress. This classification is based on the following examples.

- A. STUDIES ON NON-LIVING VERTEBRATE ANIMAL MATERIAL, NON-INVASIVE OBSERVATIONS OF WILDLIFE, AND/OR WHERE THERE IS NO CONTACT WITH ANIMALS. Experiments involving either no living materials or use of plants, bacteria, protozoa, or invertebrate animal species. Biochemical, botanical, bacteriological, microbiological, or invertebrate animal studies, tissue cultures, studies on tissues obtained from necropsy or from slaughterhouse, studies on embryonated eggs do not require review by the IACUC. Also included in this category are projects that use commercial or other USDA registered animal facilities to produce animal products, like commercial antibody companies, since there is no use of live animals here at this facility. However, invertebrate animals have nervous systems and respond to noxious stimuli, and therefore must also be treated humanely.
- B. STUDIES OF LIVE, VERTEBRATE ANIMALS CAUSING NO MORE THAN MINIMAL PAIN OR DISTRESS. This includes mere holding of animals captive for experimental purposes; simple procedures such as injections of relatively harmless substances and blood collection (except intracardiac or periorbital); physical examinations; food/water deprivation for short periods (a few hours); standard methods of euthanasia that induce rapid unconsciousness, such as anesthetic overdose or decapitation preceded by sedation or light anesthesia; oral medications; tattooing; skin scrapings, etc. Animals that are euthanized and then have tissues/organs removed are included in Category B. Animals that are anesthetized and then have tissues/organs removed before euthanasia are in Category C.
- C. STUDIES INVOLVING MORE THAN MINIMAL (MILD) PAIN OR DISTRESS USUALLY OF SHORT DURATION. This includes exposure of blood vessels or implantation of chronic catheters with anesthesia; behavioral experiments on awake animals that involve short-term stressful restraint; immunization employing Freund's Complete Adjuvant; injection of certain infectious agents; intracerebral inoculations; noxious stimuli from which escape is possible; surgical procedures under anesthesia that may result in some minor post-surgical discomfort. Terminal invasive procedures done on anesthetized animals before they are euthanized are included as Category C.
- D. STUDIES INVOLVING MODERATE TO SEVERE PAIN OR DISTRESS, BUT THIS PAIN OR DISTRESS IS ALLEVIATED OR OTHERWISE CONTROLLED BY DRUGS. Deliberate induction of behavioral stress in order to test its effect; major surgical procedures under anesthesia that result in significant post-operative discomfort; burning, freezing, or debilitating bone injury with survival; induction of an anatomical/physiological deficit that will result in pain or distress; diseases or toxicities that are induced and the animals are expected to become sick or abnormal; application of noxious stimuli from which escape is impossible; prolonged periods (8 hours or more) of physical restraint; maternal deprivation with substitution of punitive surrogates; production of radiation sickness; certain injections; and stress and shock research that would result in pain approaching the pain tolerance threshold, i.e., the point at which intense emotional reactions occur.

- E. PROJECTS INVOLVING SIGNIFICANT PAIN OR DISTRESS WITHOUT THE BENEFIT OF PAIN-RELIEVING DRUGS. A written justification why the severe pain is unavoidable and why pain relief cannot be given must be submitted by the investigator for inclusion with the annual USDA report. This justification is required by federal law. Use of muscle relaxants or paralytic drugs used alone for surgical restraint without the use of anesthetics; induction of aggressive behavior leading to self-mutilation or intra-species aggression; severe burn or trauma infliction on unanesthetized animals; attempts to induce psychotic-like behavior; or inescapably severe stress or terminal stress. Many of these procedures are specifically prohibited in national policies and therefore may result in withdrawal of federal funds and/or institutional USDA registration.