

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. Does the protocol call for the live animals to ever be removed from the ARF? ___ Yes
 ___ No If yes, 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.

10. Will you be using controlled substances? ___ Yes ___ No
 If yes, list your DEA License Number _____

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 Principal Investigator and Department Chairperson should both electronically sign the IRBNet submission. **Any changes in the above protocol must receive approval of the IACUC prior to implementation.**

APPENDIX 1

CATEGORIES OF PAIN

A simple yet useful definition of a painful or distressful procedure on an animal is this: “A procedure that would cause pain or distress in a human.” 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. ANIMALS THAT ARE BEING “BRED, CONDITIONED, OR HELD FOR USE IN TEACHING, TESTING, EXPERIMENTS, RESEARCH, OR SURGERY BUT NOT YET USED FOR SUCH PURPOSES.” These animals have not been used for any research procedure, however minor. Category B is the place to put breeders and other animals that are not undergoing any experimental procedures.

C. ANIMALS THAT ARE NOT SUBJECTED TO PROCEDURES THAT INVOLVE PAIN OR DISTRESS OR WOULD REQUIRE THE USE OF PAIN-RELIEVING DRUGS. Routine procedures such as injections and blood sampling from veins that produce only mild, transient pain or discomfort are reported in this category. Another example of Category C procedures is an observational study of animal behavior. Animals that are euthanized before tissue collection or other manipulations are also commonly placed in this category, if no other procedures are to be performed that put them in a higher pain/distress category.

D. ANIMALS THAT ARE SUBJECTED TO POTENTIALLY PAINFUL PROCEDURES FOR WHICH ANESTHETICA, ANALGESICS, OR TRANQUILIZERS WILL BE USED. The important concept is that animals are given appropriate anesthesia and/or pain relief to limit their pain and distress as much as possible.

Examples of Category D procedures are:

- Surgery conducted with appropriate anesthesia and postoperative analgesia.
- Removal of a small tumor under local or general anesthesia.
- Use of analgesia after an animal’s skin is exposed to ultraviolet light to cause a “sunburn”.
- Terminal exsanguination (euthanasia by removal of blood) under anesthesia.

E. ANIMALS THAT ARE SUBJECTED TO PAINFUL OR STRESSFUL PROCEDURES WITHOUT THE USE OF ANESTHETICS, ANALGESICS, OR TRANQUILIZERS. Withholding of anesthetics, analgesics, or tranquilizers can only be allowed if it is scientifically justified in writing and approved by the IACUC.

Examples of Category E procedures are:

- lethal dose studies (e.g. LD50 studies) that allow animals to die without intervention,
- pain studies that would not be possible if pain-relieving agents were administered,
- psychological conditioning experiments that involve painful stimuli such as a noxious electrical shock that cannot immediately be avoided by an animal.

Category E studies are given increased scrutiny by IACUCs because they must be satisfied that less painful or stressful alternatives are not available, or that less painful/stressful endpoints cannot reasonable be used. By law, the institution must annually report all category E procedures to the USDA and include a scientific justification supporting the IACUCs decision to approve them. Often, the justification given to the IACUC by the researcher for USDA-regulated species is used for the annual report.

It is important for information on category E procedures to be complete and accurate. Once submitted to the USDA, this information will likely be available to the public through a Freedom of Information Act (FOIA) request.

Revised 02/2016