

Application and Assurance for the Humane Care and Use of Teaching and Research Animals at Wheaton College

Contents

INSTRUCTIONS.....	2
AGREEMENT	2
APPLICATION	4
ANESTHESIA, ANALGESIA, SURGERY, AND POSTSURGICAL CARE.....	6
PROJECT CONCLUSION AND EUTHANASIA	8
BIOLOGICAL SAFETY	8
PROTOCOL.....	10
RATIONALE	10
EXPERIMENTAL DESIGN & ANIMAL PROCEDURES.....	11
FOR IACUC USE ONLY	12
ATTACHMENT 1 Explanation for USDA Pain/Distress Category E Procedures	13

INSTRUCTIONS

Submit **ONE paper copy (signed)** and **ONE emailed copy** of this protocol to AMANDA BETTLE, Animal Facilities Supervisor, a minimum of **three** weeks prior to the proposed starting date of any project so that it can be sufficiently reviewed by the IACUC. THIS MINIMUM TURN-AROUND TIME WILL BE STRICTLY ENFORCED. Keep in mind that you must also allow for a minimum period of animal acclimation before research can start (a few days to over a week, depending on study), and possibly also quarantine.

The purpose of Wheaton College's Institutional Animal Care and Use Committee (IACUC) and its policies is to ensure that animals used for teaching and research are treated in a humane manner in compliance with current federal regulations. The committee must approve all methods of animal care involving **all vertebrate species** used in teaching and research. No animals will be allowed to arrive on campus, and no research may begin until the proposed project is approved by the IACUC. Any individual conducting a research project or teaching demonstration involving animals that is not approved by the Animal Care and Use Committee will be responsible for any damages incurred in that project or demonstration. Projects in violation of humane care and use of animals will be subject to termination.

Principal Investigators are responsible for ensuring that all individuals working on this proposal receive training in the necessary skills and participate in the institution's Occupational Health and Safety Programs if working in a research lab (online Chemical Hygiene and Hazard Communication Training). Prior to commencing this project, PI's must give their students and assistants a copy of "Research with Animals at Wheaton" as part of their discussion & training on humane animal use.

Continuing review of protocols will take place not less than annually. Labs are subject to announced mid-semester post-approval monitoring inspections by the IACUC. All approved protocols are valid for 3 years, after which a new protocol must be submitted to continue the project. After a protocol is approved, modifications must be submitted to the IACUC prior to being implemented. Modification request forms can be obtained from the IACUC Coordinator and onCourse.

AGREEMENT

I agree to abide by the provisions of the USDA Animal Welfare Regulations, the National Research Council's Guide for the Care and Use of Laboratory Animals, and/or the Public Health Service Policy on Humane Care and Use of Laboratory Animals as required of me. I understand that this document may become public domain through the Freedom of Information Act. I will permit emergency veterinary care to animals showing evidence of pain or illness.

The information in the following pages is complete and accurate to the best of my knowledge. Any modifications I have to the attached animal care and use protocol will be promptly forwarded in writing to the IACUC (adding species, increasing animal numbers or procedures, changing procedures, etc). I understand that revisions must be approved by the IACUC prior to being executed.

I have reviewed the relevant literature and have concluded that the proposed project is not an unnecessary duplicate of past procedures or experiments. Also, I have considered the possibility of using alternative research methods such as tissue culture, computer models, etc., and believe that the use of living animals in this study is necessary. Additionally, I have researched the alternatives to painful or distressful procedures and have provided a description and justification of these conclusions in this proposal.

(Signature of Principal Investigator)

Date of Submission

(Signature of Faculty Advisor if P.I. is a student)

Date

APPLICATION

PRINCIPAL INVESTIGATOR (P.I.):

DEPARTMENT:

FACULTY ADVISOR (If P.I. is a student):

PROJECT TITLE: (If for a course, indicate course number)

PLEASE CHECK ONE:

_____ *New application*

_____ *Renewal*

PROJECT PERIOD: (Month, Year)

From _____ *to* _____ (*3 YEAR MAXIMUM*)

SOURCE OF FUNDING: (Dept. Operating Budget, Faculty Award, NIH, other?)

LIST THE NAMES AND CONTACT INFORMATION

(phone, email) of all individuals authorized to conduct procedures involving animals under this proposal (co-investigators, assistants, etc.) and describe their SPECIFIC TRAINING/EXPERIENCE with these procedures & species. DESCRIBE WHO WILL TRAIN LESS EXPERIENCED INDIVIDUALS, WHAT TOPICS WILL BE COVERED, AND WHEN TRAINING TAKES PLACE:

ANIMAL REQUIREMENTS

(provide separate lists for multiple species):

GENUS/SPECIES:

STRAIN:

COMMON NAME:

SEX:

SOURCE:

NUMBER PER TRIAL/PROCEDURE:

NUMBER PER SEMESTER:

NUMBER PER 3-YEAR LIFE OF PROTOCOL:

IF WORKING WITH WILD ANIMALS, PLEASE PROVIDE EVIDENCE OF ALL PERMITS NEEDED:

ANIMAL FACILITIES NEEDED: (Where will animals be housed, where will procedures be conducted? Indicate room numbers. Describe any special environmental parameters, caging needs, feeding schedules, etc.)

ANESTHESIA, ANALGESIA, SURGERY, AND POSTSURGICAL CARE

The following information is requested to ensure compliance with federal guidelines governing the care and use of all vertebrate laboratory animals. Any procedure that would cause pain or distress in a human should be considered to cause pain or distress in an animal. Please place your animal subjects into one of the following categories. If multiple procedures will be performed on an animal, the animal should be placed in the category appropriate for the most painful/distressful procedure. One animal cannot be placed in multiple categories.

USDA Pain Category	Description of Category	Species and Number
Category B	Animals are being “held for use in teaching, testing, experiments, research or surgery but not yet used for such purposes.”	Per trial or procedure: <hr/> Per semester: <hr/> Per 3-years:
Category C	Animals are not subjected to procedures that would require the use of pain-relieving drugs, including injections & blood sampling from veins (minor discomfort) and observational studies of animal behavior. Animals euthanized before tissue collection or other manipulations are placed in this category, unless another procedure puts them in a higher category.	Per trial or procedure: <hr/> Per semester: <hr/> Per 3-years:
Category D	Animals are subject to potentially painful procedures for which anesthetics, analgesics or tranquilizers will be used. Examples include, surgery, rodent retroorbital eye bleeding, terminal exsanguinations – all under anesthesia.	Per trial or procedure: <hr/> Per semester: <hr/> Per 3-years:

USDA Pain Category	Description of Category	Species and Number
Category E	<p>Animals are subject to painful or stressful procedures without the use of anesthetics, analgesics or tranquilizers. This can only be allowed if justified in writing, approved by the IACUC, and reported annually to the USDA (if a regulated species). One example includes psychological conditioning experiments that involve painful stimuli such as a noxious electrical shock that cannot immediately be avoided by an animal.</p> <p>*For Category E animals, see Attachment 1</p>	<p>Per trial or procedure:</p> <hr/> <p>Per semester:</p> <hr/> <p>Per 3-years:</p>

For CATEGORY D animals, list the anesthetics, analgesics, and tranquilizers used on animals for each procedure, together with the dosage (mg/kg, for example) for each species.

For CATEGORY D and E animals, you must discuss the alternatives to painful or distressful procedures, why you must conduct painful or distressful procedures, and include evidence of a database search supporting your decision. If you wish, you may discuss this in the later section titled Protocol Rationale.

If SURGERY is involved, indicate what surgical procedures will be performed, where they will be performed, whether it is survival or non-survival surgery, and arrangements for aseptic techniques. Identify who will perform surgical procedures and what qualifications, experience and training they have. Provide a description of intra-operative and post-operative monitoring. If you wish, you may discuss this in the later section titled Protocol Experimental Design & Animal Procedures.

PROJECT CONCLUSION AND EUTHANASIA

DESCRIBE WHAT WILL HAPPEN TO ANIMALS AT THE END OF YOUR PROJECT:

- Euthanasia
- Keep for future studies
- Return to wild (restrictions may apply)
- Donate to local zoo
- Adopt out to new homes (restrictions may apply)

DESCRIBE METHODS OF EUTHANASIA FOR EACH SPECIES: (Refer to the AVMA Guidelines for the Euthanasia of Animals: 2020 Edition for acceptable methods)

DEAD ANIMAL DISPOSITION, please check one:

- Discard in freezer
- Hold in freezer for future use
- Hold in refrigerator for necropsy
- Donate to local zoo (rodent species only)

ADDITIONAL COMMENTS REGARDING DISPOSITION OF SICK OR DEAD ANIMALS (Indicate desired plan of action in case of animal illness or death):

BIOLOGICAL SAFETY

Please check if any of the following bio-hazardous materials are to be used in animals. **Identify the specific product** and provide additional information as requested:

- Infectious disease agent(s):
 - Infectious to humans:
 - Non-human animals:
- Tumor cells, tissues, sera, and other biologics that may contain infectious agents:
- Carcinogens:
- Toxic chemicals:
- Noxious gases:

_____ Recombinant DNA:

_____ Experimental drugs:

**Note: Wheaton College does not carry a license for work with radioactive materials

If any of the previously mentioned biological hazards are checked, please provide the following information:

_____ Specific animal care requirements:

_____ Specific precautions for animal handlers:

_____ Waste and disposal requirements:

DRUG AND CHEMICAL SAFETY

Do any substances require a DEA license? __YES __NO

If YES, is the P.I. in possession of a valid license, or collaborating with someone who has a valid license? _____YES _____NO

What drugs or chemical agents will be employed in this protocol? Please list:

How will drugs or chemicals be obtained:

Once on campus, how will drugs or chemicals be stored? Be specific, particularly about substances that are hazardous or have an abuse potential.

PROTOCOL

Please briefly describe below the rationale and procedures to be employed in your proposed study. Be sure to address the specific questions you are asked, as well as to describe your proposal in more general terms. REGULATIONS REQUIRE THAT YOU PROVIDE A WRITTEN ACCOUNT OF HOW YOU MADE DECISIONS FOR YOUR PROPOSAL, INCLUDING THE SEARCH FOR ALTERNATIVES, SO PLEASE INCLUDE THESE REFERENCES AS APPROPRIATE (database searches, etc). **PROTOCOLS SUBMITTED WITHOUT THIS JUSTIFICATION & BIBLIOGRAPHY MAY BE REJECTED.** You may include your reference list on a separate sheet if necessary. **If your project is part of a teaching lab, please include a copy of the lab handouts your students will use.**

RATIONALE

What is the OBJECTIVE of this study? Make it clear to the reader the reasons for your investigation:

What is the POTENTIAL VALUE and SIGNIFICANCE of this proposal? How is this study relevant to the advancement of knowledge, animal or human health, or the good of society, etc?

JUSTIFY why there is no ALTERNATIVE to the procedure that you propose. If you haven't addressed it already, for animals in Category D and E you must discuss the alternatives to painful or distressful procedures, why you must conduct painful or distressful procedures, and include evidence of a database search supporting your decision.

Explain how this study is different from other studies, i.e., describe how this study does not unnecessarily duplicate previous experiments.

Discuss your decisions regarding:

The NUMBER of animals used:

The PROCEDURES conducted:

Any SPECIAL requirements:

Include REFERENCES (literature, database searches, etc.):

EXPERIMENTAL DESIGN & ANIMAL PROCEDURES

Describe the procedures that you propose, using language understandable to all members of the IACUC (including non-scientist members). If you haven't addressed it already, indicate what surgical procedures will be performed, where they will be performed, whether it is survival or non-survival surgery, and arrangements for aseptic techniques. Identify who will perform surgical procedures. Provide a description of intra-operative and post-operative monitoring.

FOR IACUC USE ONLY

PROPOSAL #

PRINCIPAL INVESTIGATOR

THIS PROPOSAL HAS BEEN REVIEWED WITH THE FOLLOWING OUTCOME:

_____ APPROVED

DATE:

_____ REQUIRES MODIFICATION TO GAIN APPROVAL

DATE:

_____ APPROVAL WITHHELD

DATE:

COMMENTS:

DESIGNATED REVIEWER:

SIGNATURE:

DATE:

IACUC Members' signatures:

ATTACHMENT 1
Explanation for USDA Pain/Distress Category E Procedures

(this report is to accompany USDA/APHIS Form 7023, Annual Report of Research Facility,
if it involves USDA-regulated species)

This information may be publicly available from the USDA under the Freedom of Information Act

Name of Investigator:

Animal Study Proposal Title:

Species (inc. common name) and number of animals listed in Category E for each year:

Briefly explain the procedure producing pain and/or distress (you do not need to rewrite your protocol here):

Provide a scientific justification to explain why the use of anesthetics, analgesics, sedatives or tranquilizers during and following painful or distressing procedures is contraindicated. State methods or means used to determine that pain and/or distress relief would interfere with test results.

Signature of investigator:

Date:

Signature of IACUC:

Date: