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Animal Care and Use

All use of vertebrate animals (fish, amphibians, birds, reptiles, and mammals) in research and teaching must be approved by the Otterbein University Animal Care and Use Committee (OUACUC). The following forms must be filled out and submitted to Dr. Sheri Birmingham in the Equine Science Department (sbirmingham@otterbein.edu) for review by the committee. The information can be directly typed into the form, saved, and sent electronically. Space will expand as you type. Note that Appendices 2 and 3 only need be filled out if the work involves either teaching (Appendix 2) or wildlife (Appendix 3). An additional form is also available to amend a previously approved proposal. All submissions are expected to be polished, professional work, and if submitted by a student, should be checked and approved by the advisor. Example protocols are available to provide a model of what is expected by the committee. If you have any questions, do not hesitate to contact Dr. Birmingham for assistance.

**OTTERBEIN UNIVERSITY ANIMAL CARE AND USE COMMITTEE**

**ANIMAL USE PROTOCOL**

Protocol No. Click here to enter text. Date Received: Click here to enter text.

Responsible Otterbein Faculty: Click here to enter text.

Academic Title: Click here to enter text. Department: Click here to enter text.

Campus Address: Click here to enter text.

Work Phone: Click here to enter text. Emergency Phone: Click here to enter text.

Course Name Number & Enrollment (if applicable): Click here to enter text.

Participating Personnel:

|  |  |  |  |
| --- | --- | --- | --- |
| Name & Position | Department | Emergency Phone # | Email |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

PROTOCOL TITLE: Click here to enter text.

REVIEW STATUS:

[ ]  Initial Review [ ]  Continuation (No Change) [ ]  Continuation (Change)

PERIOD OF PROTOCOL: From Click here to enter text. to Click here to enter text. (not to exceed 3 years).

**A: ANIMAL INFORMATION**

LIST ALL ANIMALS TO BE USED:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Species | Number/termor year | Age | Sex | Weight |
| a) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| b) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| c) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| d) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| e) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| f) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| g) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

DESCRIBE ANIMAL HOUSING AND LOCATION:

Click here to enter text.

**Purpose of Animal Use (check one):**

[ ]  Studies of a fundamental nature in sciences relating to essential structure or function (i.e
biology, psychology, biochemistry, pharmacology, physiology, behaviour, etc.)

[ ]  Studies for medical purposes, including veterinary medicine, that relate to human or animal disease or disorders.

[ ]  Studies for regulatory testing of products, for the protection of humans, animals, or the environment.

[ ]  Studies for the development of products or appliances for human or veterinary medicine, animal nutrition, animal reproduction and/or animal care.

[ ]  Education and training of individuals in post-secondary institutions or facilities.

[ ]  General operating protocols (for routine management of herds / colonies).

[ ]  Diagnostic testing.

**Category of Invasiveness (check one): Refer to ‘Categories of Invasiveness in Animal Experiments’ (Appendix 1).**

 [ ]  A [ ]  B [ ]  C [ ]  D [ ]  E

**Classification**

[ ]  ***Acute*** - Utilizing an animal for a brief period (less than 24 hrs.), followed by euthanasia or return of the animal to source, **or** humanely killing an animal upon receipt or after a brief housing period during which time no manipulations other than standard management procedures are performed, i.e. anaesthetized without recovery, euthanized for tissue collection, etc.

[ ]  ***Chronic*** - maintaining the animal and performing experimental procedures during this time, i.e. feeding trials, antibody production, breeding colony, recovery surgery.

**\*\*Teaching & Wildlife studies require an additional form (Appendix 2 and 3, respectively)**

**B: PROCEDURES**

Generally, describe the procedures to be used, number of animals, category of invasiveness, and analgesic/anesthetic used (details to follow in subsequent sections)

Click here to enter text.

SURGERY - Will surgery be conducted on animals? [ ]  Yes [ ]  No

If yes, complete this section:

Procedure: [ ]  Non Recovery Surgery [ ]  Recovery Surgery [ ]  Multiple Surgeries

Performed by: Click here to enter text. Location of Surgery (Bldg. & Rm. #): Click here to enter text.

INFECTIOUS OR TOXIC AGENTS - Will infectious or toxic agents be used in this protocol?

 [ ]  Yes [ ]  No

If yes, identify agent(s): Click here to enter text.

RESTRAINT - Will prolonged restraint be used?

 [ ]  Yes [ ]  No

If yes, describe the type and duration of the restraint.

Click here to enter text.

PAIN OR DISTRESS - Does this procedure(s) have the potential to inflict pain or distress (ie. Category of invasiveness greater than B)?

 [ ]  Yes [ ]  No

If yes, identify the procedure(s), indicate the signs attributable to pain or distress, and describe the measure(s) taken to alleviate or minimize pain or distress.

Click here to enter text.

ANESTHESIA, ANALGESIA, TRANQUILIZERS, ETC. - Will anesthetic, analgesic, or tranquilizing agents be administered?

 [ ]  Yes [ ]  No

If yes, complete this section.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Species | Agent (Generic Name) | Dose (mg/kg) | Route | Performed by |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

Personnel Performing Procedures:

|  |  |  |
| --- | --- | --- |
| Name | Procedures to be performed | Qualifications/Experience |
| Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. |

RATIONALE FOR USING ANIMALS - Describe briefly the rational for using animals and for the use of the species selected. Include consideration given to alternative methods to the use of animals and number of animals being used.

Click here to enter text.

**C: EXPERIMENTAL END-POINTS**

Indicate any clinical conditions or abnormalities *expected or that could arise* as a result of the proposed study or teaching exercise (e.g. behavioural changes such as increased grooming, vocalization or postural changes, or physical abnormalities such as anorexia, dehydration, diarrhea, etc.)

Click here to enter text.

In terms of species-specific behavioural changes and physiological signs, list the criteria that will be used to trigger the decision to remove an animal from the teaching exercise or experiment, or to terminate the teaching exercise or experiment.

Click here to enter text.

EUTHANASIA - Will euthanasia be carried out? [ ]  Yes [ ]  No

If yes, provide information below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Species | Agent (Generic Name) | Dose (mg/kg) | Route | Performed by |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

If no, describe disposition of animals(s) at conclusion of study.

Click here to enter text.

**D: DAILY CARE OF ANIMALS**

Provide detailed description of daily care and feeding regimens.

Frequency of Cleaning

Click here to enter text.

Concentration of Animals

Click here to enter text.

Feeding / Watering Schedule

Click here to enter text.

Ventilation/Number of Air Exchanges

Click here to enter text.

Special Lighting

Click here to enter text.

Temperature Range & Humidity

Click here to enter text.

Noise

Click here to enter text.

Other

Click here to enter text.

PEOPLE RESPONSIBLE FOR DAILY ANIMAL CARE

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name & Position | Department | Phone Number | Email | TrainingComplete |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
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| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

PLEASE DESCRIBE HOW AND WHEN THE ABOVE PERSONNEL WILL BE TRAINED IN THE CARE OF THE ANIMALS. (Documentation of training dates and participants need to be kept with the PI.)

Click here to enter text.

**E: ABSTRACT**

Prepare a typed abstract of this project and its significance and rationale in lay terms.

DO NOT EXCEED THE SPACE AVAILABLE ON THIS PAGE.

Click here to enter text.

This information may be used by Otterbein University in official communications with the public and news media.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

OTTERBEIN UNIVERSITY ANIMAL CARE AND USE COMMITTEE

ACTION OF THE COMMITTEE

Original Review Click here to enter text.

Periodic Review Click here to enter text.

ANIMAL USE PROTOCOL:

The Otterbein University Animal Care and Use Committee took the following action on the protocol cited above:

[ ]  Approved [ ]  Disapproved

[ ]  Approved subject to the following changes:

Click here to enter text.

Approval of the protocol is for the period of Click here to enter text. throughClick here to enter text.. The committee may periodically monitor the animals, procedures, and facilities during the time the protocol is in effect.

The responsible faculty shall immediately bring to the attention of the Otterbein University Animal Care and Use Committee any changes proposed for the approved protocol as they relate to the care or use of laboratory animals. The Committee will decide whether the extent or type of changes proposed warrant formal Committee review.

Prior to the initiation of any projects the responsible faculty should contact the committee veterinarian or person in charge of animal care within the University in which your animals are to be housed.

Certification of review and approval will be transmitted to external sponsors, as required.

The committee reserves the right to amend or revoke protocol so as to comply with federal, state, local, or University guidelines.

Chairperson, OUACUC:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Type/Print Sign Date

Responsible Faculty:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Type/Print Sign Date

**Appendix 1: Categories of Invasiveness in Animal Experiments**

*Adapted from the University of Guelph’s Animal Care Committee*

**A. Experiments on most invertebrates or on live isolates.**

**Possible examples:**

- the use of tissue culture and tissues obtained at necropsy or from the slaughterhouse;

- the use of eggs, protozoa or other single-celled organisms;

- experiments involving containment, incision or other invasive procedures on metazoa.

**Note: Animal Utilization Protocols are not required for projects involving A Categories of Invasiveness.**

**B. Experiments which cause little or no discomfort or stress.**

 **Possible examples:**

- the short-term and skilful restraint of animals for purposes of observation or physical examination;

- blood sampling (venipuncture only, **not cardiac**);

- injection of material in amounts that will not cause adverse reactions by the following routes: intravenous, subcutaneous, intramuscular, intraperitoneal, or oral, (excluding fish not under anaesthesia - Category C) but not intrathoracic or intracardiac (Category C); (or intradermal);

- acute non-survival studies in which the animals are completely anesthetized and do not regain consciousness;

- approved methods of euthanasia following rapid unconsciousness, such as anesthetic overdose, or decapitation preceded by sedation or light anesthesia;

- short periods of food and/or water deprivation equivalent to periods of abstinence in nature;

- treadmill for normal horses;

- digital retrieval of feces from calves, dogs, horses;

- dip-netting fish;

- weighing fish by mass;

- measuring fish e.g. length, width under anaesthetic;

- bleeding fish under anaesthetic;

- ear treatments/medication;

- rectal and AI for management purposes, demonstrated by trained personnel for students (as per normal management procedures); multiple rectal examinations;

- ultrasound (per rectum);

- less than ~18 hour fasting period in rodents;

- ECG electrode wires under local anaesthesia;

- rectal swab;

- pharyngeal swab;

- nasal swab;

**C. Experiments which cause minor stress or pain of short duration.**

*Such procedures should not cause significant changes in the animal's appearance, in physiological parameters such as respiratory or cardiac rate, or fecal or urinary output, or in social responses.*

 **Possible examples:**

- cannulation or catheterization or catheterization of blood vessels or body cavities under anesthesia;

- minor surgical procedures under anesthesia, such as biopsies, laparoscopy; short periods of restraint beyond that for simple observation or examination, but consistent with minimal distress;

- short periods of food and/or water deprivation which exceed periods of abstinence in nature;

- behavioural experiments on conscious animals that involve short-term, stressful restraint; exposure to non-lethal levels of drugs or chemicals;

- cervical dislocation (must be scientifically justified) of rodents without sedation (must be competent or must use sedation); also chickens, turtles;

- decapitation (must be required by experimental design but NOT scientifically justified);

- any means of physical euthanasia without prior sedation or anaesthesia

- eartagging;

- intradermal injections (ID injections) unless a significant inflammatory reaction will occur;

- gavage/orogastric tubing; stomach tubing; giesenhauer probe and pump mechanism/lavage PEG tube (without gastropexy);

- measurement (length and width) of individual fish without anaesthetic;

- tagging fish under anaesthetic;

- electroshocking fish;

- >24 hour fast for large mammals;

- >18 hour fast for mice/rats;

- castration;

- metabolic caging if it is short term and animals are exercised regularly, do not show signs of distress and have olfactory, visual and auditory contact with conspecifics;

- delayed type hypersensitivity;

- live capture of wild animals;

**NOTE: During or after Category C studies, animals must not show self-mutilation, anorexia, dehydration, hyperactivity, increased recumbency or dormancy, increased vocalization, aggressive-defensive behaviour or demonstrate social withdrawal and self-isolation.**

**D. Experiments which cause moderate to severe distress or discomfort.**

*NOTE: Procedures used in Category D studies should not cause prolonged or severe clinical distress as may be exhibited by a wide range of clinical signs, such as marked abnormalities in behavioural patterns or attitudes, the absence of grooming, dehydration, abnormal vocalization, prolonged anorexia, circulatory collapse, extreme lethargy or disinclination to move, and clinical signs of severe or advanced local or systemic infection, etc.*

**Possible examples:**

- major surgical procedures conducted under general anesthesia, with subsequent recovery; prolonged (several hours or more) periods of physical restraint;

- indication of behavioural stresses such as maternal deprivation, aggression, predator-prey interactions;

- procedures which cause severe, persistent or irreversible disruption of sensorimotor organization;

- the use of Freund's complete adjuvant (FCA) (see CCAC Guidelines on Acceptable Immunological Procedures);

- induction of anatomical and physiological abnormalities that will result in pain or distress;

- the exposure of an animal to noxious stimuli from which escape is impossible;

- the production of radiation sickness;

- exposure to drugs or chemicals at levels that impair physiological systems;

- creation of transgenic animals before phenotype is known;

- metabolic caging of longer duration or where animals are in isolation;

- subcutaneous xenotransplantations;

- laparotomy e.g. ovariectomy;

- electroshocking fish (alternatives are encouraged by the CCAC).

**E. Procedures which cause severe pain near, at, or above the pain tolerance threshold or unanesthetized conscious animals.**

*This Category of Invasiveness is not necessarily confined to surgical procedures, but may include:*

- exposure to noxious stimuli or agents whose effects are unknown;

- exposure to drugs or chemicals at levels that (may) markedly impair physiological systems and which cause death, severe pain, or extreme distress;

- completely new biomedical experiments which have a high degree of invasiveness;

- behavioural studies about which the effects of the degree of distress are not known;

- use of muscle relaxants or paralytic drugs without anesthetics;

- burn or trauma infliction on unanesthetized animals; a euthanasia method not approved by the CCAC.

**Appendix 2: TEACHING / DISPLAY**

*Please attach the course outline,* ***laboratory exercise notes or lab manual(s)*** *and any other relevant information pertaining to animal care and use.*

Comment briefly on:

1. the advantages of using live animals or animal preparations over a demonstration, film, videotape, computer simulation or other model.

Click here to enter text.

2. how you are maximizing the educational gain from the animals used.

Click here to enter text.

3. the on-site supervision provided for the participant working on animals during the laboratory.

Click here to enter text.

4. the expected number of participants.

Click here to enter text.

5. the number of participants per animal or group of animals.

Click here to enter text.

6. the participant / instructor ratio.

Click here to enter text.

**APPENDIX 3: WILDLIFE FIELD STUDIES**

1. Provide complete details of the pursuit, capture, housing, handling and restraint procedures that will be used. Include explanations of the appropriateness of these procedures.

Click here to enter text.

2. If traps are to be used, specify:

 a) the type of trap.

 Click here to enter text.

 b) the potential for injury from the trap.

 Click here to enter text.

 c) the monitoring frequency.

 Click here to enter text.

 d) the procedures if lactating females are trapped.

 Click here to enter text.

3. Indicate what will be done to minimize stress due to capture, handling and other experimental procedures. Specify the provisions for recovery, treatment or euthanasia of injured animals.

Click here to enter text.

4. a) specify the locations where these studies will occur.

Click here to enter text.

 b) list permits that have been applied for and/or received.

Click here to enter text.

5. If applicable, specify what transportation techniques will be used to move wildlife from the field to the laboratory.

Click here to enter text.

6. Specify the type or degree of potential ecological disruption expected, i.e. consequences to reproduction, survival of animals studied.

Click here to enter text.

7. If applicable, indicate how carcasses are disposed of.

Click here to enter text.