# **PROTOCOL FOR THE HUMANE USE OF LIVE VERTEBRATES**

**Institutional Animal Care & Use Committee**

**State University of New York, College of Environmental**

**Science and Forestry, Syracuse, NY 13210**

Federal animal welfare regulations require that the Institutional Animal Care and Use Committee (IACUC) must review and approve activities involving the use of vertebrate animals prior to their initiation. This includes animals used for experimental methods development or for instructional purposes. In addition, approved protocols for ongoing activities must be reviewed by the IACUC at least annually.

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| --- | --- |
| **Protocol Number (assigned after submission):** |  |
| **Protocol Title:** |  |
| **Principal Investigator/Course Director:**  |  |
| **Date Submitted (format: “20-Aug-19”):** |  |
| **Date Approved:** |  |
| **Previous protocol #(s), if applicable:** |  |
| **Date(s) of any revisions:** |  |
| **Protocol start date (cannot be before approval):** |  |
| **Protocol termination date (3 years max.):** |  |
| **Source of Funding:** |  |
| **Will the animals used under this protocol be used under other protocols? If yes, explain and provide number of other protocol.** |  |

***Part I. Layperson’s summary*** (250 word limit)

*Using terminology that a non-scientist could understand, explain the broader goals of your project, what you are going to do and how the work involving animals should be designed and performed with regard to the advancement of knowledge or the good of society (human/animal health). A section from your grant application, using highly technical terms, is not acceptable. Note that representatives of the general community who have no scientific background will be among the readers.*

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***Part II. Project Details and Personnel***

List names of all study personnel, their contact information and experience and qualifications (***include the attending veterinarian for studies involving the use of prescription or controlled pharmaceutical substances***). Where training is required, but not yet conducted, the investigator or trainee must inform the IACUC (via email or written correspondence) the date when the training was completed and what the training entailed. Ultimately, the principal investigator is responsible for ensuring all personnel are adequately trained.

The Principal Investigator must hold a faculty appointment or administrative position at ESF. For questions about personnel, contact the IACUC.

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| --- | --- |
| **Principal Investigator Name:** |  |
| **Academic Rank/Title:** |  |
| **Degree(s):** |  |
| **Department:** |  |
| **Email:** |  |
| **Phone number:** |  |
| **Cell phone number:** |  |
| **Mailing Address:** |  |
| **Years of experience with species:** |  |
| **Years of experience with procedure(s):** |  |
| **If training is necessary, how will this be done, and who will do the training?**  |  |
| **Date most recent CITI training completed:** |  |
| **Date health risk assessment completed (if needed):** |  |

Co-Investigators and other personnel. For each additional person, copy and complete this table. Addition of any personnel following approval can be made through an amendment.

|  |  |
| --- | --- |
| **Name:** |  |
| **Role/Position:** |  |
| **Degree(s):** |  |
| **Department:** |  |
| **Email:** |  |
| **Phone number:** |  |
| **Cell phone number:** |  |
| **Mailing Address:** |  |
| **Years of experience with species:** |  |
| **Years of experience with procedure(s):** |  |
| **If training is necessary, how will this be done, and who will do the training?**  |  |
| **Date most recent CITI training completed:** |  |
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FOR THE FOLLOWING SECTIONS (III-VII), COMPLETE IN THEIR ENTIRETY. USE ‘NO’, ‘NONE’, OR ‘NOT APPLICABLE’ FOR EACH QUESTION UNDERR PARTS THAT ARE NOT APPLICABLE TO YOUR STUDY.

***Part III. Overview of Animal Use***

**1. Describe the vertebrate species and the nature of its use in your study (i.e., species, sex, age or mass, number of subjects and source). If your project has multiple experiments/surveys/procedures, number and list each separately so each numbered procedure can be followed through this protocol.**

**2. Provide scientific justification for how you determined the number of animals needed for this protocol (i.e., Include a description of the statistical methods used to estimate the required number of subjects).**

 **Possible useful resource http://biostat.mc.vanderbilt.edu/wiki/Main/PowerSampleSize**

**3. Briefly describe the location(s) where the work will be done (for any captive animal work, additional details should be provided in section V).**

**4. Will any of the following agents be used on the animals in this study? If yes, fully describe them.**

**Animal pathogens: Y / N**

 **Toxins: Y / N**

 **Carcinogens: Y / N**

**Tumor cells: Y / N**

**5. Fully explain any procedures that may result in nutritional distress.**

**6. Fully describe any abnormal environmental conditions that may be imposed in your study.**

**7. Which USDA Pain Level applies to your study and why? If multiple species, uses, or experiments are included in the protocol, describe the USDA Pain Level for each.**

**8. How will the animals be monitored for potential or overt pain and/or distress during the course of this study, including spontaneous illnesses unrelated to the study?**

**9. What will be done for an animal that starts to develop signs of pain and/or distress during the course of this study?**

**10. Explain in detail methods of euthanasia to be used in your study and the disposition of carcasses of euthanized subjects.** Consult the latest version of the American Veterinary Medical Association’s Guide to Euthanasia AND your specific professional society’s guidelines for the organisms you study. Even if your study does not have euthanasia as an endpoint, you must have a plan for an animal that might need to be euthanized in an emergency situation.

***Part IV. Wildlife Studies***

*Any work involving wild vertebrate animals that materially alters their behavior requires an approved IACUC protocol. The work does not necessarily need to involve capture to materially alter an animal’s behavior. Examples of activities that alter behavior are trapping, collaring, electrofishing, baiting camera traps, call back surveys, etc. If you are uncertain, contact the ESF IACUC.*

**1. For capture/handling/stunning/baiting (etc.) of wild species, describe the techniques used.**

**2. Transport. If any transport of animals is necessary as part of this protocol, describe in detail how this will be done.**

**3. Discuss all of the pharmaceutical drugs used to relieve pain and/or distress, their dosage rates (mg/kg) and route (IV, IM, SQ) of administration. This includes support drugs used for post-capture handling of restrained, confined or trapped individuals.**

**4. Fully explain all procedures using restraint devices and include the length of time that animals will be restrained.**

**5. Fully describe the method of marking and identification (e.g., ear tags, petagial tags, radio-transmitters, PIT tags, harnesses, etc.). Justify in detail any mutilation method for identification.**

***Part V. Captivity***

Animals held for >12 hrs are considered captive.

**1. Where will animal subjects be housed?**

**2. Please describe in detail the cage/enclosure type (i.e., dimensions, construction materials, etc.).**

**3. Describe in detail the housing conditions (i.e., stocking density per house, enclosure or cage), lighting regimes, ventilation and cleaning provisions.**

**4. Please explain the feeding and care routine.**

**5. Describe the procedures in the event of an emergency (i.e., sudden illness or disease, power outage, etc.).**

***Part VI. Invasive Procedures***

**1. Describe in detail any invasive procedures (e.g., tissue biopsies, teeth extractions, transmitter implantations, etc.) involving animals to be undertaken in your studies.**

**2. Characterize the degree of pain and/or distress to be imposed on the animals during this procedure and the specific measure to alleviate discomfort, pain or distress.**

**3. Will the animals be chronically catheterized or instrumented (excluding radio-transmitters)?**

**4. Indicate the final disposition and disposal of all tissues collected for further analysis and whether they constitute biological hazards.**

**5. Describe any other procedures involving animals to be undertaken in your study not already mentioned in this section.**

**6. Is this procedure a survival surgery? If yes, will any animal be subjected to a survival surgical procedure more than once?**

***Part VII. Health and Safety Considerations***

**If the answer is yes to any of the following questions, please explain.**

 **1. Will substances used in this study be flammable, toxic, corrosive, reactive, a registered pesticide, legally controlled, or have other characteristics with the potential to cause harm or injury?**

**2. Will any physical hazards be involved in this study (e.g., machines that need safety guards; razor blades or syringes; compressed gases, etc.)?**

**3. Will this study involve biological hazards (e.g., handling potentially rabid or hantavirus-infected animals or cultures or stocks of infectious agents?**

**4. Will this study involve radiation hazards such as radioisotopes, X-rays, ultraviolet rays, or lasers?**

**5. Will this study involve electrical equipment that, due to its design, location, or method of use, pose any threat to safety? (Give considerable thought to electrical use outdoors, or any potentially wet location.)**

**6. Will there be any personal safety issues related to the study? (E.g., due to time of day or location? Health issues such as bee allergies, diabetes, a history of seizures?)**

**7. Will this study require any personal protective equipment? (E.g., hard-hats, eye/face protection, hearing protection, hand/foot protection, lab coat, visibility clothing, etc.)**

**8. Does this study involve volunteers that need to be registered with Human Resources?**

 ***Part VIII. Investigator’s Certification and Database Search***

**Literature Search**

1. I certify that this study does not unnecessarily duplicate previous findings, and support this statement with a summary of literature searches from at least 2 databases.

Please indicate: 1) name(s) of database searched (PubMed, FirstSearch, etc.), 2) date(s) the search was performed, 3) period covered by the search, and 4) key words or search strategy. **For each search outcome explain how the current work is different and not unnecessarily duplicative.**

1. In addition, for each specific procedure included in this protocol that is painful or distressful for the animal subject, alternatives must be considered. List each of the procedures here and include a narrative description of the methods and sources used to determine that alternative methods were not available or not appropriate.

**Certification**

I certify to the following:

* I will abide by all federal and state regulations, SUNY ESF and IACUC policies concerning the use of animals.
* I understand that agree that the care and use of any vertebrate animals requires review and approval by the SUNY ESF IACUC, and that IACUC approval must be obtained before animal work begins.
* The information contained herein does not materially conflict with and/or deviate from information contained in related grant proposal documents submitted to extramural funding agencies listed in the protocol, subject to IACUC review.
* I accept responsibility that all personnel working on this project are aware of and will follow the approved procedures outlined in this form. I assure that the personnel are adequately trained and have demonstrated competence in the animal procedures.
* I will notify the IACUC of any changes in this protocol, including personnel, methods of capture and handling or changes in the use of pharmaceutical substances requiring a veterinarian’s prescription. IACUC approval must be obtained prior to performing the revised animal procedures described therein.
* I will promptly notify the IACUC or Attending Veterinarian regarding any unexpected study results that negatively impact the animals, including any unanticipated pain or distress and/or morbidity or mortality.
* I will maintain appropriate animal records (e.g., drug, health, census, euthanasia, surgery, anesthesia, etc.).
* I will make every effort to safeguard the health and well-being of each animal under this protocol
* I understand that approval of projects is for a maximum of three years from the date of approval and requires completion of an annual renewal signed and returned to the IACUC office. I understand that the IACUC can call for a complete re-review of the project as needed
* By submitting this form, I agree to protocol-related activities including post-approval monitoring and communications with representatives of the IACUC.
* I have reviewed my professional society’s Guide to the Use of Living Vertebrates in Teaching and Research (provide a complete citation of the relevant guidelines).

[citation here]

**Signature of PI: Date**

 **Course Director**