

**West Texas A & M University
Institutional Animal Care and Use
APPLICATION FOR THE STUDY OF WILD ANIMALS
IN OR FROM NATURAL SETTINGS**

Submit an electronic version to AR-EHS@wtamu.edu

ID# (Committee Use Only)

This application applies to: Research Teaching

* If this application applies to teaching, please attach syllabus. The syllabus should provide evidence that these activities are associated with the course.

Title of project or activity:

If this project has been approved previously by the Committee, please indicate the ID# of the previous application and expiration date:

A COPY OF THIS APPROVED PROTOCOL WILL AUTOMATICALLY BE SENT TO THE ANIMAL HOUSING FACILITY NAMED IN THE CONFIDENTIAL SECTION OF THIS DOCUMENT.

DO NOT WRITE BELOW THIS LINE

Please, retain a copy and, AS APPROPRIATE, submit a copy with your application to various University offices through which applications must be routed, or send a copy directly to the review group or project officer in the Funding Agency for your project.

Date of Review:

Approved

Approved with modification (Attached)

Not Approved

This institution has an Animal Welfare Certificate on file with APHIS .

Chairman, Institutional Animal Care and Use Committee

EXPIRATION DATE:

CONFIDENTIAL

INFORMATION ON PAGES 2 - 4 IS CONSIDERED PRIVATE AND NOT SUBJECT TO RELEASE UNDER THE PUBLIC RECORDS ACT. PLEASE PROVIDE THE APPROPRIATE INFORMATION IN THE SPACES PROVIDED BELOW, BUT DO NOT INCLUDE THIS INFORMATION IN ANY OTHER PORTION OF THE APPLICATION. THE REST OF THE APPLICATION IS CONSIDERED PUBLIC AND IS SUBJECT TO RELEASE.

Principal Investigator or Instructor (PI) Phone Number
Department
Mailing Address
E-mail address: Fax Number
Lab Contact (Technician) and phone number:

After-hours emergency contact and phone number:

Duration of Project/Course: _____ to _____ (IACUC approval is for 3-years maximum)

Have all personnel completed the online CITI training? (An RCR refresher course is required annually – contact AR-EHS for additional training needed.)

Yes No - Please explain why not.

Have all personnel completed the initial [risk assessment](#) for researchers?

Yes No – Please complete assessment before submission.

To the best of your knowledge, are the animals to be used in this project free of disease associated with health risk to animal workers?

Yes

No - Please explain safety measures to protect workers.

1.) What types of animals are involved in this project or activity?

Livestock Companion Animals Laboratory (mice, rats, etc) Wildlife

Exotic animals Other - Specify

Provide a one-paragraph summary of the project or activity. Describe briefly what you will be doing with the animals.

2) A.) Will animals be housed? Yes No

If no, explain why not (i.e. field studies, client owned).

For field studies, give location. Be specific.

Cage Indoor pen Metabolism crate Tie stall Outdoor pen Free range

Other - please specify

B.) Please give the physical address of where animals will be housed.

Not Applicable

C.) Where will procedures (including surgeries) be performed? Include physical address, building and room number.

Not Applicable

D.) Will animals be maintained at any time in Investigator's lab or any off-campus site? Yes No

If yes, how long? Address: Building: Room Number:

If greater than 12 hours, provide justification. These arrangements must be approved by the IACUC.

E.) For animals that are transported away from the animal facility to an investigator's lab or to any off-campus site, describe containment of animals and method of transport.

3.) QUALIFICATIONS

List all personnel in your group who will care for and work with the animals without direct (in-lab) supervision; include the PI. For each person:

- Indicate their role in the project.
- List animal-related experience and training, for procedures being performed, in sufficient detail to allow the IACUC to determine that individuals are qualified; listing of degrees is not sufficient. Provide specific information for those performing euthanasia, and if applicable, for those performing anesthesia and/or surgery. **FOR SECTION A**

Name & Degree	Role	Years Experience/Species	Cert#

(Note: Indicate role of involved personnel as either Principal (PI), or Secondary (SI) Investigators, or technicians/assistants (T). Indicate each individual's years of experience with animals described herein (e.g., 6 yrs/snakes, 4 yrs/turtles). Certification of orientation, training, and experience regarding the regulatory, occupational health and safety, and care and use aspects of the animals requested herein is required prior to IACUC review of this protocol, and is available from the IACUC c/o Academic Research Environmental Health and Safety, 806-651-2270. Certification numbers if applicable for each involved individual must be listed.)

Will this project involve additional individuals beyond the PI and previously identified lead personnel?

No: Proceed to Item # 4. Yes: PI agrees to the following:

- I. No individual will be involved in project activities without receiving training from the PI or lead personnel specific to the scenario
- II. No individual not listed as the PI or lead personnel will be involved in any activity involving Pain Category B or Pain Category C (see #7 below for definitions)

4. FUNDING SOURCE

Is project funded? No: Proceed to Item # 5.

Yes: Provide details of funding agency and grant #:

Agency:

Grant #:

5. PROTOCOL CLASSIFICATION

Please check one.

New Project; Proceed to Item # 6.

3rd Yr. renewal replacing previous approved IACUC Protocol #

Please provide a brief summary (a few sentences) describing work accomplished during the last approval period and how the work proposed in this renewal extends the previous studies.

6. ACKNOWLEDGEMENT OF RESPONSIBILITY FOR UNCERTAINTY IN FIELD RESEARCH

The IACUC recognizes that field sampling is inherently unpredictable and unexpected scenarios will be encountered in the field. When such conditions occur, the PI and all personnel involved in the project are expected to handle such situations in accordance with the relevant society guidelines for the taxa involved, including the *Guidelines of the American Society of Mammalogists for the Use of Wild Mammals in Research* (<http://www.mammalsociety.org/uploads/Sikes%20et%20al%202011.pdf>), the *Guidelines for Use of Fishes in Research* (American Fisheries Society and American Society of Ichthyologists and Herpetologists: <http://www.asih.org/sites/default/files/documents/Resources/guidelinesfishresearch2003-draft.pdf>), the *Guidelines for Use of Live Amphibians and Reptiles in Field and Laboratory Research* (American Society of Ichthyologists and Herpetologists: <http://www.asih.org/sites/default/files/documents/Resources/guidelinesherpsresearch2004.pdf>), and the *Guidelines to the Use of Wild Birds in Research* (The Ornithological Council: http://www.nmnh.si.edu/BIRDNET/documents/guidelines/Guidelines_August2010.pdf).

I have read, understand, and will comply with the assurance statements.

Signature of P.I.

Date

7. CHARACTERISTICS OF WILD ANIMALS AND PAIN CATEGORY OF RESEARCH.

Is this project a baseline inventory or monitoring project in which taxa and numbers captured will be unknown, but all activities fall within Pain Category A? (Pain categories are listed below)

Yes: Indicate which are the primary taxa targeted and proceed to Item # 8.

- Fishes
- Reptiles
- Birds
- Amphibians
- Mammals

No: List and describe the animals to be studied. Indicate the anticipated number of animals to be used in each Pain Category of Research and the total number of animals involved during the 3-year approval period of this protocol. If exact numbers are not known, indicate approximately (~) or not to exceed (NTE). Indicate whether the planned procedures are anticipated to produce momentary, slight, or no pain, discomfort or distress (Pain Category A), more than momentary or slight pain, discomfort or distress which is alleviated by the use of appropriate anesthetics and/or analgesics (Pain Category B), or pain, discomfort, or distress, which cannot, or is not alleviated by the administration of appropriate anesthetics and/or analgesics (Pain Category C). (Note: The IACUC recognizes that pain perception by many species of vertebrate animals may not be uniform over the various portions of their bodies, and that broad extrapolation of pain perception across taxonomic lines may not be appropriate. The IACUC also recognizes that it is possible to capture non-target taxa and the PI assumes the responsibility to ensure such captures are dealt with in an ethical way. A single addendum page of response is permissible if it is identified as a response to which item # and page #.):

Taxa or Species	Characteristics (age, sex, weight)	# used in Pain Category A Procedures	# used in Pain Category B Procedures	# used in Pain Category C Procedures	Total Number Anticipated

8. OFF CAMPUS STUDY LOCATION.

Is this project a baseline inventory or monitoring project in which specific field locations are variable and unpredictable, but all activities fall within Pain Category A? (Pain categories are listed above in Question #7)

Yes: Proceed to Item # 9. No: Describe below the anticipated off campus location(s) where the specific project will be performed. If this protocol is to be conducted at another academic institution, or a zoological garden, aquarium, or oceanarium, please name that institution and attach a letter with official letterhead from that institution that indicates that they are anticipating the presence of this research protocol, and whether they have an assurance on file. If collaborating institutions will supply live animals collected by their staff, or will perform portions of this protocol, or University faculty or staff will conduct this protocol at another institution, those institutions must be declared here.

9. PERMITS.

Do you have knowledge of all regulations pertaining to the animals under study, including whether they are considered endangered or threatened, and will obtain all applicable permits before initiating the study? (Note: The IACUC recognizes that state and federal wildlife agencies review applications for permits for their scientific merit and their potential impact on native populations, and issue permits that authorize the taking of specified numbers of individuals, the taxa and methods allowed, the period of study, and often other restrictions designed to minimize the likelihood that an investigation will have deleterious effects.)

Yes: Proceed to Item # 10. No: Explain within the space below.

JUSTIFICATION FOR THE USE OF ANIMALS.

10. Briefly state in lay terms the **purpose and scope of work** (i.e., research hypothesis or teaching objectives) of this request, and the procedures (general sequence of events) in which animals will be involved.

11. Briefly describe why the requested animals are the subject of study, or are well suited to answer the research questions posed.

12. Briefly describe the rationale, prior experience, statistical analysis, or other methods used to understand the population status of the taxa or species to be studied, and used to determine the anticipated total number of animals that will be encountered or involved during the 3-year approval period of this protocol. (Note: The total number of animals requested in item # 7 above must be justified here. The IACUC recognizes that it is not always possible to accurately predict at the initiation of field studies the number of animals to be encountered. The minimum number of animals necessary for accomplishing the goals of the study should be used.)

13. Will this study only consist of the direct, unobtrusive observation of free-ranging animals under natural conditions, and not require that animals be contacted, captured or restrained at anytime?

No: Proceed to Item # 14. Yes: **STOP here.** This application is complete.

14. Will the captured animals ever be transported to the University?

No: Proceed to Item # 15. Yes: Within the space below, name the University building and room number where animals will be taken.

15. Will there be scheduled substances controlled by the Drug Enforcement Administration be used in the protocol?

No: Proceed to item # 16 Yes: Within the space below, list the controlled substances to be used.

CAPTURE & RESTRAINT.

16. Briefly describe the technique(s) of wild animal capture, and the method(s) and duration of animal restraint that will be used. If drug-induced immobilization will be used, indicate the dose and route of administration. (Note: Techniques that have minimal impact on the animal, require the shortest period of time to accomplish, reduce hazards to research personnel, and are environmentally benevolent should be used whenever possible. Refer to 15.99.05.W1.02AR WTAMU Institutional Animal Care and Use Procedure.)

17. Will the method of wild animal capture or restraint cause more than momentary discomfort, pain, or distress to the animals?

No: Proceed to item # 18 Yes: Briefly describe the methods to be used that will assist in avoiding or alleviating the potential for animal distress, pain, or discomfort. If drug-induced sedation, analgesia, or anesthesia will be used, list the drugs, and the dose and route of administration.

18. Are animals euthanized **immediately at the moment of capture** for preparation as museum specimens, for post mortem tissue collection, or for other purposes? (Note: If animals are euthanized later at the conclusion of study, and not immediately following their first capture, respond “No” here.)

No: Proceed to item # 19. Yes: Does the method of euthanasia immediately upon capture, and means of assuring death following euthanasia comply with 15.99.05.W1.02AR WTAMU Institutional Animal Care and Use Procedure?

No: Within the space below, indicate why a deviation is necessary.

Yes: Within the space provided, describe the method of euthanasia used for each taxa or species. If a chemical agent will be used, indicate the dose and route of administration. If tissues are to be collected post mortem, list the tissues to be collected.

MARKING

19. After capture, will animals need to be identified or marked in some manner?

No: Proceed to item # 21. Yes: Does the marking technique cause more than momentary distress?

Briefly describe the marking technique that will be used, the nature and duration of restraint required during marking, the amount of tissue affected by the technique. (Note: If drug-induced sedation, analgesia, or anesthesia will be used during the marking of animals, list the drugs, and the dose and route of administration.)

20. After marking, is it anticipated that animals will be at greater than normal risk of infection, predation, or survival, or have reduced reproductive fitness?

No: Proceed to item # 21. Yes: Justify below why this marking technique must be used, and why other techniques that have less impact on the animal may conflict with the purposes of this research activity.

21. Are specimens (e.g., tissues, blood, lymph, body fluids, etc.) collected from the captured animals prior to their release?

No: Proceed to Item # 22. Yes: Attach **Appendix A, “Specimen Collection, Ante Mortem”**.

22. Are test substances, other than those used for marking, or for sedation, analgesia, or anesthesia administered to the captured animals prior to their release?

No: Proceed to Item # 23. Yes: Attach **Appendix B, "Test Substances"**.

23. Does this animal use end with the release of the animals (with no planned recapture) at the site of capture within twenty-four hours of their restraint, without impairment of their ability to survive, while environmental conditions are conducive to their survival, and while their release is not likely to spread pathogens?

Yes: **STOP here.** This application is complete. No: Proceed to item # 24.

24. Does this animal use end after the same marked animals are recaptured again one or more times, with or without the collection of tissue specimens, or the administration of test substances, using methods identical to those described in items # 16, # 17, # 21, & # 22, above, with their release at the original site of capture within twenty-four hours of each episode of restraint, without impairment of their ability to survive, while environmental conditions are conducive to their survival, and while their release is not likely to spread pathogens?

Yes: Indicate below the anticipated number of times that the same wild animal will need to be re-captured, the time interval between each re-capture, and whether tissue specimens will be collected, or test substances will be administered during each episode of restraint, then **STOP here.** This application is complete.

No: Proceed to item # 25.

25. Will animals be confined or restricted to an enclosure in their natural setting for longer than 24 hours, or transported to, and housed within an enclosure in a University animal facility, laboratory, or other area on campus?

No: Proceed to Item # 26. Yes: Attach **Appendix C, "Animal Maintenance and Care"**.

26. Will surgery be performed on animals as part of this protocol?

No: Proceed to Item # 27. Yes: Attach **Appendix D, "Surgery"**.

27. Will animals be subject to experimental procedures other than those described above (e.g., behavioral manipulations, noxious stimuli, or forced exercise)?

No: Proceed to Item # 28. Yes: Attach **Appendix E, "Other Experimental Procedures"**.

28. Will animals be involved in Pain Category C research activities where more than momentary or slight painful or stressful outcomes are anticipated or possible, which cannot, or will not be alleviated by the administration of appropriate anesthetics and/or analgesics?

No: Proceed to Item # 29. Yes: Within the space provided, describe the methods and/or clinical criteria that will be used to ensure timely intervention and removal of the animals from the study in advance of the anticipated discomfort, or why avoidance or alleviation of animal pain or discomfort adversely affects the protocol. The earliest possible clinical end point, which will contribute to the resolution of the hypothesis, must be identified and utilized. (Note: The IACUC recognizes that pain perception by many species of vertebrate animals may not be uniform over the various portions of their bodies, and that broad extrapolation of pain perception across taxonomic lines may not be appropriate.)

29. Do the consequences of these procedures introduce the possibility of earlier animal death (excluding death from euthanasia) as an endpoint to this protocol (e.g., survival analysis)?

No: Proceed to Item # 30. Yes: Within the space provided below, explain why an earlier endpoint is not possible.

30. Are animals euthanized at the completion of this study?

Yes: No: Within the space below indicate the final disposition of the involved animals.

Does the method of euthanasia and means of assuring death following euthanasia comply with SOP Number 15.99.05.W1.02AR WTAMU Institutional Animal Care and Use Procedure on animal euthanasia within these laboratories?

No: Within the space below indicate why a deviation is necessary.

Yes: Within the space below describe the method of euthanasia used for each species. If a chemical agent will be used, indicate dose and route of administration.

STOP here. Complete and attach any required appendixes as indicated above. This application is complete.

APPENDIX A: SPECIMEN COLLECTION, ANTE MORTEM

(Complete & Submit for Review Only If Response to Item # 21 was "Yes")

1. Within the space provided, list the tissues or specimens (e.g., blood, spleen, liver, lymph node, body fluid) that will be collected ante mortem from animal(s), and indicate the amount of tissue to be collected, the frequency of collection, and the method that will be used to collect the tissue sample (e.g., needle aspiration, punch biopsy, or surgical excision).

2. Will the procedure used in collecting tissues cause more than momentary pain or discomfort?

(Note: Invasive procedures that are performed while animals are anesthetized which open the integument, enter a body cavity, orifice, or hollow visceral organ are considered to cause more than momentary, slight pain or distress, respond "Yes" below; noninvasive procedures such as needle aspiration, respond "No" below).

No: Within the space provided, describe the method of restraint, and whether tranquilizers, sedatives, or anesthetics will be used, and their dose and route.

Yes: Within the space below, describe how anesthesia will be induced and maintained, including the dose and route of agents used, whether post-operative/procedural analgesics will be used, their dose and frequency of administration, and a description of the post-procedural methods of minimizing and/or alleviating pain and discomfort.

Description of Appendix A is complete.

APPENDIX B: TEST SUBSTANCES

(Complete & Submit for Review Only If Response to Item # 22 was "Yes")

1. Complete the table below. Name the test substance(s) that will be administered to animals. Indicate the **class** of each substance as either an: (A) infectious agent, (B) primary explant, uncharacterized human blood, lymph or tissue specimen, (C) recombinant DNA, (D) radioisotope, (E) carcinogen, (F) hazardous or toxic chemical, (G) biological toxin, (H) Cell line, (I) Adjuvant, (J) Antigenic Substance, (K) Pharmacologic Agent, or (L) Other class of substance by using the appropriate capital letter. Indicate **to which species** each substance will be administered. Indicate the **dose** (e.g., µg/gm bwt), **volume per administration**, **route** (e.g., i.v., i.p., s.c.), and **interval** (e.g., 1x, daily, eod, every 3rd day), and **duration of administrations** (e.g., 5 wks).

Substance (list all substances including vehicle/control)	Class (above)	Species (administered to)	Dose/Volume/Route (3.0mg/kg bw / 0.1ml / i.p.)	Interval (1x, eod , ev 3 rd day)	Duration (5 weeks)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

2. In the same order in which substances to be administered are listed in the table above, very briefly indicate below the purpose of substance administration in the relation to the hypothesis, and **the expected effect to the animal(s)**. **If none, so state.**

Purpose and Expected Effect of Substance Administration to the Animal
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

APPENDIX B: TEST SUBSTANCES (cont.)

3. Is there a possibility that any of the test substance(s) could cause **more than momentary or slight** pain, discomfort, or distress to the animals, **either immediately** following substance administration, or as a **consequence long after** administering the test substance(s)?

No: Proceed to item # 4. Yes: List those substances in the space below. For each such substance describe the consequences of administration that have a potential to cause animal discomfort, pain, or distress, and how discomfort, pain or distress will be anticipated, minimized or alleviated (e.g., nude mice administered tumor cells will be humanely euthanized if induced tumors become >1.0 cm in diameter, or if tumors ulcerate, or if tumors interfere with posture, locomotion or feeding). If discomfort, pain, or distress will not be alleviated, then justify how treatments interfere with the procedures or the interpretation of results.

(Note: Log entries describing health concerns or complications that develop as a consequence of substance administration to nonrodent mammals, and their treatment and resolution, or when animals are euthanized must be kept by the PI in the animal facility on forms provided by Comparative Medicine.)

4. Are any of the test substances listed above in response to item 1, included in any of the classes A through G, and considered a regulated or potentially **hazardous** material to research or animal care personnel?

No: **STOP here.** This appendix is complete. Yes: List those substances in the space below and describe procedures to ensure these substances and/or animals to which these substances have been administered will be handled safely (e.g., BSL-2, WTAMU Chemical Hygiene Plan, Universal Precautions, etc.)

Test substance(s) of any of the classes A-G listed above under item 1, page 8 are either regulated or potentially hazardous and require prior authorization of use by the appropriate Safety Committee. Signature of the Radiation Safety, Biohazard/ Recombinant DNA Safety, or Chemical Safety Compliance Officer below indicates that the applicant has consulted with the appropriate Safety Committee, and that that committee has approved the use of the test substance(s). Signature of the applicant PI on page 1 ensures that research personnel will abide by all relevant, universal precautions regarding blood-borne pathogens, appropriate biosafety level precautions, radiation safety procedures, and the chemical hygiene plan.

(Note: Approval of an application involving hazardous materials is often contingent on a pre-performance meeting involving staff that represents the applicant's laboratory, the IACUC, and the appropriate Safety Committee(s). This meeting is required in order to ensure that all involved personnel are aware of the precautions, containment practices, facilities, protective devices, disposal and decontamination procedures, and other necessary safety procedures that must be followed to protect personnel, and prevent accidental animal exposure to the hazardous material.)

Signature of Safety Officer(s)

Date

Description of Appendix B is complete.

APPENDIX C: ANIMAL MAINTENANCE & CARE

(Complete & Submit for Review Only If Response to Item # 25 was "Yes")

1. Will the captured animals be maintained in an enclosure in their natural setting at the site of capture for longer than twenty-four hours?

No: Proceed to Item # 3. Yes: Within the space below, indicate the period of time that animals will be cared for in the field, describe the enclosure(s) that will be used, the methods for maintaining appropriate living conditions that contribute to the animal's health and well-being, including their diet and frequency of feeding if applicable, and how environmental conditions will be controlled. Note: Methods must accommodate salient features of the animal's ecology, morphology, physiology, and/or behavior, and contribute to their health and well-being.

2. Describe the factors that will be monitored to ensure that these methods of animal maintenance in the field contribute to the health and well-being of the confined animals (e.g., appearance, behavior, activity, growth).

3. Will the captured animals be transported to the University or another location and maintained there for longer than twenty-four hours?

No: Proceed to Item # 6. Yes: Within the space below, indicate to where the captured animals will be transported, including the University building and room number if applicable, and the period of time that the animals will be cared for at this new location.

4. While animals are housed on campus, describe the enclosure(s) that will be used, the methods for maintaining appropriate living conditions that contribute to the animal's health and well-being, including their diet and frequency of feeding, and how environmental conditions will be controlled. Note: Methods must accommodate salient features of the animal's ecology, morphology, physiology, and/or behavior, and contribute to their health and well-being.

APPENDIX C: ANIMAL MAINTENANCE & CARE (cont.)

5. Describe the factors that will be monitored to ensure that these methods of animal maintenance in the laboratory contribute to the health and well-being of the confined animals (e.g., appearance, behavior, activity, growth).

6. Will any of these methods of animal maintenance and care in the field or in the laboratory cause more than momentary or slight pain, distress, or discomfort to the animals?

No: Proceed to Item # 7. Yes: Within the space below, describe the methods that will be used to minimize pain, distress, or discomfort.

7. After the period of animal maintenance in the field or laboratory, will the animals be released at the original site of capture, without impairment of their ability to survive, while environmental conditions are conducive to their survival, and while their release is not likely to spread pathogens?

No: Proceed to Item # 8. Yes: **STOP here.** Appendix C is complete.

8. After the period of animal maintenance in the field or laboratory, will the animals be humanely euthanized as described in response to item # 30, page # 6, above?

Yes: **STOP here.** Appendix C is complete. No: Within the space below, describe the final disposition of the animals, below.

Description of Appendix C is complete.

APPENDIX D: SURGERY

(Complete & Submit for Review Only If Response to Item # 26 was "Yes")

1. Within the space provided, describe the pre-operative medications, including tranquilizers, sedatives, pre-anesthetics, and general anesthetics, and their dose and route.

2. Within the space provided, describe all pre-operative procedures, including whether food or water are withheld, (for what period of time), the shaving of hair, surgical scrub, draping, and placement of leads, probes, or catheters.

3. Will paralyzing agents be used?

No: Proceed to item # 4. Yes: Within the space provided, justify why it is necessary to use them.

4. Within the space provided, describe the surgical procedures in chronological order and in sufficient detail so that the IACUC will be able to determine what is being performed on the animal.

(Note: Intra-operative monitoring, medications and support are to be described below under item # 5).

APPENDIX D: SURGERY (cont.)

4 (cont.). Within the space provided, describe the surgical procedures in enough detail so that the IACUC will be able to determine what is being performed on the animal.

(Note: Intra-operative monitoring, medications and support are described below under item # 5).

5. Within the space provided, describe the methods used for monitoring intra-operative anesthesia, and all intra-operative medications and/or support.

(Note: Log entries describing surgical events involving nonrodent mammals must be kept by the PI. Log entries must at least include a pre-operative assessment, an anesthetic plan, records of the induction and monitoring of general anesthesia, a brief description of the surgical procedures performed, a record of the recovery from anesthesia (or method of euthanasia of the anesthetized animal), a post-operative assessment, and any complications, treatments, and/or plans.)

6. Will the animal(s) regain consciousness from anesthesia following surgery?

No: Stop here, this description is complete. Yes: Proceed to item # 7.

7. Indicate below where the surgery will be performed, whether in the field at the location(s) described in response to item #8 on page 2 above, or on campus in a laboratory. If on campus, name the building and room number.

8. Will aseptic techniques be used (as a minimum including working in an uncluttered area, the wearing of surgical gloves & mask, preparation of the surgical site with disinfectant, cleaning of instruments with a disinfectant, and appropriate wound closures)?

No: Within the space provided, justify why not. Yes: Proceed to item # 9.

9. Animals recovering from general anesthesia must be monitored at least until they are sternal recumbent and capable of purposeful movement. Prior to that point, describe the interval and manner of immediate post-operative monitoring, and clinical reassessment. How frequently will the animals be evaluated, and in what manner will the animal(s) be monitored post-operatively?

(Note: Log entries of all post-operative events involving nonrodent mammals must be kept by the PI in the animal facility.)

10. Will more than one major surgical procedure be performed on a single animal?
(Note: If a survival surgical procedure is followed by a nonsurvival surgical procedure, respond "No".)
No: Proceed to item # 11. Yes: Within the space provided, justify.

11. Within the space provided, describe post-operative patient care after the animals have been returned to long-term housing, including the administration of analgesics, medications, fluids, and any other support methods (dose, route and frequency of post-operative analgesics and medications must be described), and indicate that skin sutures or staples will be removed at approximately 10 - 14 days post-operatively.

Description of Appendix D is complete.

APPENDIX E: OTHER EXPERIMENTAL PROCEDURES

(Complete & Submit for Review Only If Response to Item # 27 was "Yes")

1. Within the space provided, describe other experimental procedure(s) that have not been described in detail above (e.g., behavioral manipulation, forced exercise, noxious stimuli, physical restraint) and the expected outcome.

2. How long will each procedure last?

3. Will the procedure(s) cause more than momentary, slight pain or discomfort to the animals?

No: Proceed to Item # 4. Yes: Within the space provided, describe the methods that will be used to minimize pain and discomfort.

4. Within the space provided, describe the methods for monitoring the condition of the animal during the procedure and during the post-procedural period, and whether a log of observations will be kept.

Description of Appendix E is complete.